

**Resilience to Drought:
Learning From Adolescent Boys Living in Leandra**

by

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Abstract

The purpose of this study is to learn how adolescent boys from Leandra, South Africa, explain their resilience to drought-related challenges. The reason for the study was to gain insight from young people (specifically black, rural South African adolescents) who are under represented in explanations of resilience—which tend to be dominated by resilience studies from Europe and North America. Furthermore, there are currently insufficient studies about the resilience of adolescent boys to drought. And, because there are few studies that focus on the resilience of adolescent boys who are challenged by drought, I adopted a gender-focused lens (adolescent boys). I adopted an exploratory qualitative study with, more specifically, a phenomenological research design and made use of arts-based methods in collecting the data—followed by an inductive content analysis of the data. Three themes emerged in response to the question of what boys do to support their resilience during times of drought (they engage in sport and creative activities, talk to caring others, and pray to God and have faith in their religion). Two themes emerged in response to what social ecological resources support boys' resilience within a context of drought (protective service providers and peers). These themes are useful to educational psychology because it highlights that adolescent boys' resilience is moulded by their social ecology as well as which adaptive coping mechanisms are used by adolescent boys faced by drought.

Key Terms: adolescents, boys, drought, resilience, resilience-enabling resources, social ecology

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Resilience to Drought: Learning From Adolescent Boys Living in Leandra

by Megan Hanekom

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Moira Richards
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1. CHAPTER ONE: INTRODUCTION

1.1 INTRODUCTION AND RATIONALE OF THE STUDY

My study forms part of a larger study entitled, “Patterns of Resilience Among Young People in a Community Affected by Drought: Historical and Contextual Perspectives.”¹ I was invited to participate in this larger study, as an educational psychology student, by researchers working on the study. That research team included members from the University of Pretoria (South Africa), the University of Brighton (United Kingdom), and two organisations called BoingBoing (United Kingdom) and Khulisa Social Solutions (South Africa). The larger study focuses on resilience and drought; drought is a natural risk that adversely impacts the social, economic, and environmental systems of adolescents’ health and well-being (Jadoo, 2015). Drought is predominantly problematic in areas of sub-Saharan Africa (including semi-arid to dry sub-humid areas of Southern Africa) where recurrent drought intersects with development challenges such as inequality, exclusion, poor education, and a lack of employability skills (Shiferaw et al., 2014).

It is important, therefore, to understand what enables young people to withstand, adapt to, resist, or challenge these negative impacts (i.e., to be resilient). There are currently only a few studies explaining the resilience of adolescents to drought (Carnie, Berry, Blinkhorn, & Hart, 2011; Hart, Berry, & Tonna, 2011). The fact that there are insufficient studies explaining how young people manifest resilience to drought is important to me as a student in educational psychology because I expect that I will increasingly work with adolescents who are affected by drought given that I am interested in identifying what resources these adolescent boys make use of in order to manage drought. Furthermore, the resilience of adolescent boys is an important focus for me due to prior experience of homeschooling a boy. The exposure of working with boys has further created an interest in identifying what supports the resilience of adolescent boys in adverse circumstances such as drought.

¹ This is the GRCF project referred to later on (pg. 10 et. seq.). More detail will be provided about this project in Section 1.8.

Conducting research within a drought-stricken context and focusing my specific research on adolescent boys will provide me with information that is rich in adolescent experiences during drought and how they adapt to its negative impacts (lack of crops, reduced availability of water). The larger study and, therefore, my sub-study too, adopts a social ecological systems theory approach to resilience (Ungar, 2011) with a particular interest in how social and environmental systems enable and restrict the resilience of adolescent boys challenged by drought. The reason for conducting this research is to better understand the complex relationships between drought, social-ecological systems (e.g., family, school, government, the physical environment), and the resilience of adolescent boys.

1.2 PROBLEM STATEMENT

Resilience approaches have been limited by a lack of theory about how risk and resilience are defined; consequently, there are ongoing questions about how to assess, measure, and facilitate resilience—particularly with regards to specific groups of youth in majority-world contexts (Panter-Brick, 2015). More specifically, the views of indigenous young people in majority-world contexts (including black, rural South African adolescents living in drought-affected towns such as Leandra) are under represented in explanations of resilience, which tend to be dominated by resilience studies from Europe and North America (Liebenberg & Ungar, 2009; Ungar, 2013). As long as their views are under reported, it will be difficult for educational psychologists to make a positive difference in the lives of these adolescents. For this reason, it is important to include indigenous youth-produced understandings of what puts them at risk, as well as which resources protect them against negative outcomes that conditions of risk (such as drought) typically predict (Liebenberg & Theron, 2015).

1.3 PURPOSE OF THE STUDY

Given the above gap, the specific purpose of my study is to gain an understanding of how adolescent boys from Leandra explain their resilience to drought-related challenges. As a student of educational psychology, it is of great importance to me to understand what enables adolescent boys to withstand, resist, and challenge the impact that drought has on their overall well-being. This is important to me

because the number of adversities faced by adolescent boys is increasing drastically and it is important to me to better understand resilience in order to instil a resilient way of thinking in all adolescent boys to help them to become functional adults (Goldstein & Brooks, 2006).

1.4 RESEARCH QUESTIONS

1.4.1 Primary research question

- How do adolescent boys from Leandra explain their resilience to drought-related challenges?

1.4.2 Sub-questions

- What do boys do to enable resilience within a context of drought?
- Which social ecologies support the resilience of adolescent boys during times of drought?

1.5 THEORETICAL FRAMEWORK: SOCIAL ECOLOGY OF RESILIENCE THEORY

Models of resilience tend to be contextually specific or relevant to a particular type of stressor such as in the context of drought (Ungar, 2015). A popular model within the study of resilience is the *social ecology of resilience theory* (SERT) (Ungar, 2011), which is based on Bronfenbrenner's (1979) bio-ecological model. Bronfenbrenner's model is a multidimensional and systemic model of human development. It discusses various systems at different levels (Ebersöhn & Bower, 2015). SERT draws on all these levels to explain resilience.

The individual dimension is an important concept to consider when explaining resilience. It comprises of knowledge, skills, and attitudes of the individual, which they learn from their environment and by interacting with parents, friends, and teachers (Peeters, 2012). The human body is itself a bio-ecological microsystem in which physical subsystems are influenced by cognitive and emotional processes and, as a result, has an overall outcome on resilience (Ungar, 2014)

The social environment comprises of interpersonal factors. This refers to interactions with other people, which are important for creating knowledge and

beliefs that are passed down to one another (Peeters, 2012). This system refers to the adolescent's direct environment and consists of structures with which the individual has direct contact. Social interactions refer to those between children and their social groups such as friends, school, and the community (Ungar, 2014).

The physical environment consists of different organisations that play a role in creating the environment for interaction amongst peers and in receiving support from people other than parents, such as schools, for example. The physical environment is that layer in which the social systems interact, such as the interaction between an adolescent and educators or educational psychologists, which can assist in powering resilience within the adolescent (Ungar, 2014).

The community comprises different cultural values and norms. Environmental interactivity is an important element given that it is the cultural setting within which the community is situated. Culture refers to collective interactions, values, and practices indigenous to groups that jointly define, preserve, and interconnect group members (Theron, et al., 2011).

For the purposes of my study, I adopt SERT because it is used to explain the effect the environment has on the resilience of an individual and how the individual and environment interact in order to enable resilience. In other words, SERT is sensitive to the various layers of the environment and the impact each level has on the resilience of an individual. This will help me to explain the resilience of adolescent boys without being over focused on the boys themselves. Ungar (2011) called this decentrality.

I have also chosen SERT because resilience is a complex phenomenon. SERT accounts for multiple determinants that contribute to resilience and it will make me mindful of the complexity and potential cultural relativity of resilience (both of which are key principles of SERT (Ungar, 2011)). Lastly, SERT states that supportive interaction between an individual and social and physical ecologies make resilience more likely (Ungar, 2013). When ecologies are not supportive, it is possible that resilience processes could include atypical ways of coping with adversity (Ungar, 2011). For example, Malindi and Theron (2010) reported that

street-connected boys used socially inappropriate acts (such as vandalism) to survive.

1.6 CONCEPT CLARIFICATION

For the purpose of this study, the concepts of resilience, drought, adolescent, and the social ecology are central and are, therefore, explained below.

1.6.1 Resilience

Resilience is a process that supports positive outcomes despite the risks people are exposed to (Masten, 2001). It arises from everyday resources such as a healthy family, supportive teachers, and caring communities (Theron et al., 2011).

1.6.2 Drought

Drought was defined by Mishra and Singh (2010) as limited access to water, leading to a reduced water supply over a long period of time. As a result, drought leads to a number of negative consequences such as a decline in crop yields, increased food insecurity, and depletion of water for human use—cooking, cleaning, and drinking (Venton, 2012). Drought, over time, can further cause a decline in health, migration, civil unrest, national economic impact, and increased crime (Hayes, 2017). Drought can, therefore, have a detrimental effect within a community that contributes to an adolescent's inability to withstand adverse situations and enhance resilience.

1.6.3 Adolescent

The World Health Organization (n.d.) defined an adolescent as any person between the ages of 10 and 19 years. In my study, however, I will only include adolescent boys between the ages of 15 and 19 years from the 43 participants included in the GRCF project.

1.6.4 Social ecology

A social ecological framework recognises various layers of influence—for example, micro-, macro-, and ecosystems (Castro & Isaacowitz, 2018), that is, it considers the interconnections in the adolescent world (Swearer & Hymel, 2015).

It more specifically refers to the interpersonal, intrapersonal, and community dynamics as they influence the individual (Buchanan & Miedema, 2017).

1.7 ASSUMPTIONS

I anticipate that this research will provide me with insight as to how adolescent boys explain their resilience, as well as which social ecologies support their resilience during times of drought. I further anticipate that the findings will provide me with insights into how an educational psychologist can facilitate resilience of adolescent boys to drought by using the participants' insights. Based on research from Turnbull, Sterrett, and Hilleboe (2013), adolescent boys from Leandra use the resources within their social ecological system to beat the odds brought by drought. More specifically, I expect that the devastation brought on by drought will become evident through the findings. For example, the lack of job opportunities for these adolescents in rural areas brought on by drought, which gives rise to further challenges such as hunger or malnourishment, and lack of water and the impact of this on available sanitation. I hope to see how these boys build resilience against these odds.

1.8 METHODOLOGY

The methodology is detailed in Chapter 3. What follows below is a summary of the methodology applied for this study. First, however, I would like to contextualise my study. As noted in the introduction, my study is part of a larger, funded study about resilience in the context of drought. This larger study took place in Leandra, Mpumalanga, which was chosen because it has a long history of drought and is thus considered a drought-challenged area (Jadoo, 2015).

Leandra is situated in Govan Mbeki Local Municipality, which is located within the Gert Sibande district, Mpumalanga. The municipality is renowned for both its mining and manufacturing sectors. According to the 2011 census, there are 294,538 residents living in the Govan Mbeki municipality (Statistics South Africa, n.d.). Specifically, Leandra is a rural town surrounded by farms. It is known as Cosmos Country that is on the border of the Free State and Gauteng (SA-Venues.com, n.d.). There are 1,061 males and 962 females living in Leandra. There are approximately 508 households and the average household consists of

3.4 people. About 56% of people have access to piped water, and approximately 26% of the economically active people are unemployed (Statistics South Africa, n.d.).

1.8.1 Epistemological paradigm: Exploratory qualitative research

The basic qualitative research approach was applied (Merriam, 2009). Within this broad approach, I chose a social constructivist paradigm and exploratory interactions took place in the adolescent participants' natural setting. The data collection followed an emergent design (Creswell, 2014). Reasons for choosing this approach, as well as the advantages and disadvantages for this approach, are discussed in Chapter 3 (Section 3.3.2).

1.8.2 Research design: Phenomenology

I adopted a phenomenological design. The reason for choosing this research design, as well as the advantages and disadvantages, are discussed in Chapter 3 (Section 3.4.1). In Chapter 3, I also detail the arts-based data collection methods that I used.

1.8.3 Participants

The GRCF study applied purposive sampling procedures in selecting 43 participants according to fixed criteria discussed in detail in Chapter 3 (Section 3.4.2). Purposive sampling is used when samples are chosen based on a particular characteristic or a particular purpose (Jadoo, 2015; Shi, 2011). The reasons for using purposive sampling are explained in detail in Chapter 3 (Section 3.4.2). In Chapter 3, I also explain that I worked with a sub-sample (i.e., the adolescent boys; there were nine adolescent boys in total).

1.8.4 Data analysis and interpretation

To analyse the data that was generated, inductive content analysis was applied (Braun & Clarke, 2006). More specifically, I used thematic analysis, which identifies and highlights themes in data. A theme captures an important aspect of the data in relation to the research questions that I stated earlier (Braun & Clarke,

2006). The reasons for using thematic data analysis, as well as the advantages and disadvantages, are explained in detail in Chapter 3 (Section 3.4.4).

1.9 QUALITY CRITERIA

Guba and Lincoln (1994) noted that to establish trustworthiness in research, a variety of quality criteria are to be adhered to. These criteria include credibility, dependability, transferability, confirmability, and authenticity. In Chapter 3 (Section 3.5), these criteria are discussed in detail.

1.10 ETHICAL CONSIDERATIONS

As explained in Chapter 3 (Section 3.6), the greater project, “Patterns of Resilience Among Young People in a Community Affected by Drought: Historical and Contextual Perspectives,” received ethical clearance (UP 16/11/02) and this clearance was awarded on the basis that all collaborating researchers, including myself, will honour core ethics principles. The greater project followed the ethical principles of informed consent (and parental or caregiver co-consent if participants are minors), voluntary participation, permission to audio and video record, right to withdraw, and limited anonymity and confidentiality (limited because of group work), which I will discuss in more detail in Chapter 3.6.

1.11 CONCLUSION

This chapter provided a brief overview of my study. In the following chapter, Chapter 2, I review the literature on the risks and resources associated with the resilience of adolescents in South Africa. I review the literature to highlight that little is currently known about the resilience of adolescent boys challenged by drought.

2. CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION

Chapter 2 will discuss the current known resilience-enabling resources that support adolescents to positively adapt in a context of drought. Focus will be placed on the following:

- a) What puts an adolescent at risk?
- b) What encourages resilience?
- c) How are these risk or protective factors affected by drought?

The contents of this chapter reflect both African and international literature. The reason for this is that there is an abundance of literature regarding resilience both internationally and within the African context (Panter-Brick & Leckman, 2013). There is a worldwide view of literature that will discuss drought and resilience throughout this chapter. I include international literature on drought due to the limited literature available on drought in the African context. I believe this gap is ironic, given how Africa is increasingly challenged by drought (Global Warming Causes, 2018). Figure 2.1 below provides a schematic representation of the format my literature review will follow.



Figure 2.1: Visual representation of Chapter 2. Adapted from Bronfenbrenner (1979).

2.2 RISKS AND RESOURCES ASSOCIATED WITH THE INDIVIDUAL ADOLESCENT

Kumpfer (1999) distinguished five internal characteristics in the individual, namely, motivational, social/behavioural, physical, emotional/affective, and cognitive competencies or strengths. These internal characteristics are needed in order to be successful in different developmental tasks, different cultures, and different personal environments. These characteristics can facilitate resilience (Theron & Theron, 2014). However, these five individual characteristics can also manifest less positively (e.g., being rigidly motivated or socially impulsive) and this may then put adolescents at risk of negative outcomes. Negative outcomes refer to individual factors that result in violent behaviour, low self-esteem, poor mental health symptoms, poor functioning, incompetence, antisocial socialisation, and risk-taking behaviour (Fergus & Zimmerman, 2005). In the next sections, I will use Kumpfer's (1999) five characteristics of the self to discuss the risks and protective resources associated with the adolescent. I conclude the section on the individual by referring to what is known about the individual-level risks that droughts bring.

2.2.1 Risks associated with the adolescent

When an adolescent is socially and behaviourally incompetent, risk-taking behaviour, which is a widespread social problem among adolescents (Idemudia & Sekano, 2015), could lead to critical accidents or death. According to Cooper, Agocha, and Sheldon (2000) and Cyders and Smith (2008), variables that have been identified as playing a role in risk-taking behaviour include personality, sensation-seeking, impulsivity, extraversion, and neuroticism. Vulnerable adolescents tend to engage in other risky behaviour such as suicide attempts and self-harm (Booth, Scott, & King, 2010).

A study conducted by Robbins and Bryan (2004) on the relationship between impulsive sensation-seeking and risk-taking behaviour among South African adolescents found that higher levels of adolescent impulsivity predicted alcohol problems and cigarette smoking. Furthermore, another study, conducted in the North-West province of South Africa on the whether involvement of the father or lack thereof could contribute to risk-taking and self-harming behaviour of adolescents, reported that risk-taking behaviour influences an adolescent's

physical development and may also influence cognitive development in terms of poor psychological functioning (Idemudia, Maepa, & Moamogwe, 2016).

Cognitive incompetence such as poor academic achievement, poor planning skills, or lack of creativity is affected by self-efficacy. Having a low self-efficacy further affects career choices and academic achievement in adolescents (Buthelezi, Alexander, & Seabi, 2010). Cognitive incompetence, otherwise known as intellectual disability (ID), refers to diminished health and well-being (Hall & Theron, 2016). ID is characterised by limitations in intellectual ability, adaptation and inability to acquire or apply new skills, as well as inadequate social skills, emotional, and behavioural disorders. Attention deficit may be a further limitation associated with ID (Hall & Theron, 2016).

Another study, conducted by Fakier and Wild (2011), reported that adolescents without learning difficulties were more likely to use tobacco and cannabis, whereas those with learning difficulties engaged more in inhalant drugs use. Furthermore, adolescents who experience learning difficulties reportedly also experience sleeping problems as opposed to those without learning difficulties. In some instances when adolescents experience learning difficulties due to ID, it may be misdiagnosed as attention deficit hyperactivity disorder (ADHD) in the classroom. ADHD is common yet under recognised and under treated among some adolescents. A study by Vrba, Vogel, and de Vries (2016) reported that structured protocols should be followed when assessing adolescents with ADHD to ensure that the disorder is not under- or misdiagnosed. This could have adverse effects for the adolescent during her or his developmental stage.

The process of developing from a child into early adulthood could pose emotional challenges to some adolescents. At-risk adolescents show characteristics of low self-esteem and limited vision for the future (Kamper, 2008). This could be because during the adolescence stage, the self-concept is developed—making them fragile and, therefore, contributes to self-consciousness (Sebastian, Burnett, & Blakemore, 2008). A study on exposure to violence in adolescent boys in South Africa, conducted by du Plessis, Kaminer, Hardy, and Benjamin (2015), showed

that high exposure to violence contributes to aggression and conduct disorder, which influences the emotional well-being of these adolescent boys.

Whilst spiritual and motivational characteristics include belief systems that serve to motivate and create direction for the efforts of the adolescent (Kumpfer, 1999), they also refer to being spiritually connected, adhering to religion, and having faith in a religious or spiritual being (Malindi, 2014; Malindi & Theron, 2010). The absence of the aforementioned has been associated with vulnerability. For example, a study conducted on 145 adolescent psychiatric patients showed that there was a link between the loss of faith and negative religious coping and substance abuse, as well as less improvement in depression (Dew et al., 2010).

Failure to develop one's physical abilities successfully (e.g., physical growth, fine or gross motor abilities) may result in problems later in life. Obesity, being overweight, and even malnutrition put the adolescent at risk of chronic diseases in later life (Pradeilles, Rousham, Norris, Kesten, & Griffiths, 2016). According to Delany, Jehoma, and Lake (2016), inadequate food intake compromises growth, health, and development. In addition, inadequate food intake increases the risk of infections and contributes to malnutrition. Stunting indicates ongoing failure to thrive and is a common form of malnutrition in South Africa (Prendergast & Humphrey, 2014).

Another physical risk relates to infectious disease. Adolescents in South Africa are at high risk of acquiring HIV (Anderson, Beutel, & Maughan-Brown, 2007). The identification of adolescents at risk of HIV infection is a key component of prevention efforts. The Shout-It-Now² online programme allowed adolescents to listen to South African celebrities speak about HIV/AIDS prevention efforts—safer sex, condom use, voluntary counselling and testing, and responsible decision making (van Zyl, Studts, & Pahl, 2015). A study conducted by Toska, Cluver, Hodes, and Kidia (2015) looked at whether knowledge of HIV status by HIV-positive adolescents and partners resulted in safer sex. Results reported that knowing one's partner's status did result in safer sex; however, HIV-positive adolescents feared rejection and stigma in disclosing their HIV status to sexual

² <http://shoutitnow.org/>

partners. HIV is also related to a range of other illnesses such as TB, which has further negative effects on physical health (Cooper, De Lannoy, & Rule, 2015). Another study by Ebersöhn, Eloff, Finestone, Grobler, and Moen (2015), stated that HIV/AIDS and mental health have a bi-directional relationship. This means that living with HIV/AIDS may increase the risk of mental illness.

2.2.1.1 Risks associated in the adolescent challenged by a drought context

Research on risks associated with drought report that mental health is likely to be affected, which brings about cumulative risks (Carnie et al., 2011; Hart et al., 2011). These cumulative risks refer to the development of depression, anxiety, and substance abuse, which ultimately depletes personal resources and results in adolescents being unable to cope with the negative impacts of drought (Hart et al., 2011). In contrast to the substance abuse by adolescents in South Africa, a study conducted in rural and remote New South Wales on adolescents' mental health when faced with drought, reported reduced income and increased debt and loss of hope, ultimately leading to mental health problems for some and to tragedy, despair, and suicide for others. Adolescents living on farms in New South Wales reported risk of isolation when faced with drought, in that they are forced to work on the farm. They also referred to the isolation and inability to attend school as "stolen childhood" (Carnie et al., 2011, p. 246). Adolescents face the risk of self-harm when they are unable to obtain help owing to their educational and employment limitations (Carnie et al., 2011).

2.2.2 Individual protective resources

While very similar to cognitive competencies, behavioural and social competencies differ because they require behavioural action and not just thoughts, like cognitive competencies. Behavioural and social competencies include social skills, being street-smart, communication and problem-solving skills (Kumpfer, 1999). A study by Malindi and Theron (2011) found that begging was an unconventional but effective coping strategy specifically for male street youth. Bhana et al. (2016), as well as Malindi and Theron (2010), recognised self-regulation as a social skill of adolescents that contributes to resilience. A study conducted in HIV clinics in Durban and another located near Durban in an urban area of KwaZulu-Natal

identified self-regulation as a protective resource for adolescents affected with HIV/AIDS (Bhana et al., 2016). Coping abilities may be directly related to social development, adjustment, and well-being (Mohangi, Ebersöhn, & Eloff, 2011).

When confronted with acute trauma and stress, belief in the world as “comprehensible, meaningful and manageable,” may assist in the process of positive adaptation (Mohangi et al., 2011, p. 398). Cognitive competencies require a thought aspect, for example, regulating thoughts, pro-social choices, and confidence (Kumpfer, 1999). In a study focusing on the strengths of male street youth, Malindi and Theron (2011) reported that higher levels of intelligence (e.g., the ability to solve problems) and personal strengths (e.g., self-efficacy) are considered protective resources enforcing resilience.

Emotional competency refers to effective emotional management, a positive self esteem, humour, and being hopeful. Emotional giftedness is used to describe competent emotional development and adaptation (Ebersöhn, 2007). Mohangi et al. (2011) explained how children and adolescents cope while living in an institution as a consequence of HIV/AIDS. They have identified strategies such as self-worth, hope, optimism, a sense of security, comfort, and belonging as the variables of emotional competency that enable resilience. A positive self-concept and self-image are portrayed by feelings of self-awareness, independence, competence, and having a sense of responsibility. Using spiritual connectedness as a means of positively adapting to adverse situations implies that spiritual connectedness as a coping style offers hope and motivation (Mohangi et al., 2011). Embracing religion (God) can be viewed as motivating because it may enhance life circumstances. Similarly, religion that is embraced as a safe haven and seen as a source of comfort, provides appropriate stability and a resource from which adolescents can draw strength (Mohangi et al., 2011). Studies by Folkman and Moskowitz (2004) and Malindi and Theron (2011) claim that religious and spiritual beliefs are used to assist adolescents in adapting positively to the demands of stressful events. Orme and Seipel’s (2007) study on resilient street youth in South Africa reports that spirituality and hope encourage resilience.

Toughness and mastery, coupled, are seen as generating resilience as well as adding to better physical health and well-being (Seery, Holman, & Silver, 2010). According to Hills, Meyer-Weitz, and Kwaku Oppong (2016), physical strengths elicits pride in physical powers. Physical ability is important for the survival of adolescents living on the street or in adverse conditions. Theron and Theron (2010) identified good health as a contributing factor to resilience in adolescents.

2.2.2.1 Positive resources in a drought context

Hegney et al. (2007) investigated protective factors in adolescents living in Australia who have adapted positively to adversities (e.g., drought). They found that common intrinsic elements present in participants were being positive, innovative, tough, and hard-working, having faith and spirituality, being flexible, as well as having hope for the future. Similarly, Caldwell and Boyd (2009) conducted a study in New South Wales, Australia, and found that an individual's positivity, optimism, humility, and psychological strength were considered positive resources to assist in adapting positively.

2.3 THE FAMILY SYSTEM

A family system can be defined as a nuclear family, which refers to a husband, wife, and their offspring living together as a family unit (Goldenberg & Goldenberg, 2008). However, in the South African context family can also refer to the extended family that supports and invests in the adolescent (Mkhize, 2006). The extended family includes the support of grandparents, aunts, uncles, as well as those who play the role of models (Mkhize, 2006; Theron, 2015, 2016). Families can be forced to restructure due to illness, death, or divorce, as well as material deficiency due to job losses, which may place adolescents at risk (Ebersöhn & Bouwer, 2013; Yarosh, Chew, & Abowd, 2009). In this section, I look at what places the adolescent at risk in the family setting and what in the family setting provides the adolescent with the protective resources needed to thrive.

2.3.1 Risks related to the family system

According to Kumpfer (1999), the family system typically determines many high-risk environments to which adolescents are exposed. In most research, high-risk

refers to the high-risk environment from which the adolescent comes, as discussed above by Ebersöhn and Bouwer (2013) and Yarosh, et al. (2009). These high-risk environments to which adolescents are exposed to, can lead to dysfunctional family, as a result of divorce and single-headed households, which places the nuclear family under undue stress (Ebersöhn & Bouwer, 2015; Theron, 2016). A family places an adolescent at risk when there is structural change or weakness, material deficiency, or negative family practices (Ebersöhn & Bouwer, 2015).

The death of parents could result in orphaned adolescents and, consequently, adolescent-headed families, which are becoming a common trend in South Africa. When the structure of the family changes, the adolescent could be expected to take on adult roles for which they are not developmentally prepared, such as dropping out of school and working a full-time job to support siblings and household expenses (Collishaw, Gardner, Lawrence Aber, & Cluver, 2016; Lethale & Pillay, 2013). For example, in a study conducted in rural areas of KwaZulu-Natal, South Africa, Kartell & Chabilall (2005) reported that, adolescents affected by HIV/AIDS may have to look after bedridden parents, who become their patients, and adopt adult responsibilities within their home.

Another potential risk for the changing of family structure can be attributed to divorce, which can result in the adolescents feeling lost and uncertain of their position in the family due to a change in family residence and routines of everyday life (Ebersöhn & Bouwer, 2015). Family interactions can often become ineffective after divorce, consisting primarily of conflict, which could possibly contribute to the emotional pain and insecurity experienced by adolescents (Dunn, O'Connor, & Cheng, 2005; Ebersöhn & Bouwer, 2015). In a study on the resilience of adolescents in reconstituted families following a divorce, Ebersöhn and Bouwer (2015) reported that adolescents may experience feelings of insecurity about their social position in the micro-family system as well as uncertainty about the relationship of trust with their biological parents. Some of these adolescents often experienced unsupportive mothers and sibling conflict that is ineffectively dealt with by parents, owing to the separation and lack of cohesion in the family structure. Furthermore, these ineffective family interactions may also negatively

influence adolescent behaviour. As a result, this may play an important role in predicting future youth violence. For example, in a study, “Youth Violence in South Africa,” poor family functioning and family conflict have been identified as increasing the risk of exposure to violence, violent behaviour through socialisation, as well as violent attitudes and exposure to domestic violence (Choe, Zimmerman, & Devnarain, 2012).

Material deficiency may result in poor care, supervision, and access to health services, due to the death of parents or parents losing their jobs (Meyer, 2013). As a result of family divorce and death of family members, adolescents may often be found to live in adolescent-headed households within a poverty-stricken environment (Lethale & Pillay, 2013). Consequently, the lack of resources may result in the adolescents experiencing food insecurity and malnutrition (Theron, 2015; Theron & Phasha, 2015), which influences their physical development and may result in starvation and stunted physical growth (Collishaw et al., 2016; Meyer, 2013). Furthermore, adolescents may run the risk of experiencing emotional disorders due to the shortages in available resources (Lethale & Pillay, 2013).

Family functioning could influence the family unit, which plays an important role in addressing adolescent behavioural problems (Muyibi, Ajayi, Irabor, & Ladipo, 2010). Uninvolved parents or dysfunctional families run the risk of being a contributing factor to teenage fatherhood, poverty, and impaired psychological well-being in adolescents (Kheswa, 2015). A recent study conducted in KwaZulu-Natal, South Africa, by Meinck et al. (2017) looked at factors such as the relationship between family, parenting, and adolescent health; they reported that abusive parenting resulted in higher adolescent health risks. In addition, they noted that caregiver mental health distress also impacted on and increased adolescent health risks.

2.3.1.1 Drought-specific risks to the family

Economic uncertainty as well as poor mental health is of concern for families living on farms and experiencing a drought. Alston and Kent (2008) discussed the link between rural masculinities traits and the poor mental health outcomes of men

during droughts. Some men are more vulnerable to poor mental health outcomes (potential suicide) during drought periods. According to Alston and Kent (2008) the masculine stereotype in farming families typically prevents men from seeking help when their health is compromised.

In contradiction to the above study, a study by Meyiwa, Maseti, Ngubane, Letsekha, and Rozani (2014) showed that in some instances in the farming communities, men's concerns are often prioritised and women's significant contributions to the family unit become nearly invisible. This study was conducted in rural communities of KwaZulu-Natal in the Eastern Cape on the role women play in the farming communities. Women and girls are responsible for the fetching of water, cooking, and other household chores whereas men are, amongst other duties, responsible for travelling long distances. Women are consequently most vulnerable to climate change (drought) as a result of their unsafe environmental responsibilities of fetching water, food, and ploughing the land. Furthermore, women are at risk of being exposed to gender violence because they have to search for water away from their homes due to the scarcity of water. It is clear that both male and females are at risk when they have to fulfil their gender-specific roles in harsh conditions during a drought.

2.3.2 Family-based resilience enablers

I will now discuss how the family supports adolescent resilience by considering material resources available to the family, structural support, and family communication style.

Access to material resources assists in effective adjustment to stressors such as poor health and poverty (Deist & Greef, 2016). Some examples of material resources include that of food security, access to schooling, and a roof over one's head (Collishaw et al., 2016; Theron 2016). For example, the study, "Culturally and Contextually Sensitive Understanding of Resilience," shows drawings of parents (mothers bringing food home)—this picture reflects who in the family supports their resilience process (Theron, 2016). Another study by Collishaw et al. (2016) supported the findings of Theron (2016) and Collishaw et al. (2016)—this study reported on adolescents who were orphaned as a result of parents having

HIV/AIDS and also identified food security to be a resilience enabler within the family.

Relational support is identified as a protective resource within the family (Theron, 2016). Protective resources (such as family cohesion, flexibility and utilising social resources, the availability of problem solving and coping skills) are used by the family as resilience resources in supporting successful family functioning (Deist & Greef, 2016; Ebersöhn, Nel, & Loots, 2017). Vermeulen and Greeff (2015) offered valuable insight on internal and external resilience resources within the family. Internal resources include those of parents' relationships with adolescents, emotional functioning, and attitudes. In contrast, external resources refer to the support of extended family, friends, and local community-based support of non-profit organisations. Additionally, having positive role models within the family structure can be considered a resilience resource because a role model is an individual who provides an adolescent with a set of values and code of behaviour that the adolescent can copy in their transition into adulthood, and which may enable adolescent resilience (Madhavan & Crowell, 2014).

Thus, for example, a 17-year-old African boy explained that, as a result of his parents passing away, he was living with his uncle who taught him a new skill—how to care for their livestock and how to avoid negative influences and instead make “good friends” (Theron, 2016). This example indicates how the support of extended family members can represent a role model, hence this can be considered a resilience-enabling resource for adolescents within the family.

Effective communication is also identified as a family resource that enables adolescents' resilience (Deist & Greef, 2016; Lethale & Pillay, 2013; Yarosh et al., 2009). These authors believe that effective communication empowers youth to adjust their behaviour accordingly. Communication needs to comprise of affirmation and positivity, according to Cloete and Greeff (2015).

2.3.2.1 Drought-specific family resilience enablers

This section on drought-specific resilience enablers makes use of both national and international literature. Family is considered a resilience enabler in the context

of drought (Burgos, Al-Adeimi, & Brown, 2017). A study conducted in rural Queensland, Australia, had participants report that during a drought, the presence of family (daughters and spouses) helped them to focus on the future and not their current situation as a means of enabling resilience (Hegney et al., 2007). A different study in southern New South Wales, Australia, examined how families adapt positively when there is drought (Caldwell & Boyd, 2009). This farming community was situated in a small farming town in the Riverina district. Participants reported that extended family increased access to resources, and this access to resources and an optimistic appraisal of the stressor (drought) increased their coping mechanisms. Another factor considered important was their knowledge of the indigenous environment and what was available to the families. Hence, indigenous knowledge has also been identified as a resilience enabler within the family context, which refers to the knowledge acquired by family members in the community and passed from generation to generation. For example, an article specific to the South African context, in the Msinga community, KwaZulu-Natal, reported that indigenous knowledge systems have been well developed over time to manage disasters (drought) by being able to predict rain and develop effective coping strategies for family members (Rukema & Simelane, 2013). It can be concluded from the above examples that, irrelevant to where these communities find themselves in the world, indigenous knowledge can be used to enable resilience because it enables families to better plan for drought.

2.4 COMMUNITY

A community consists of a collective, cooperative group of individuals within a geographical entity and can also be related to shared experiences (Kramer, Seedat, Lazarus, & Suffla, 2011). It further refers to a unique set of practices, rituals, and understanding of reality (Vaisey, 2007). Lack of a sense of community can result in disorders in the community.

South Africa, like Australia, tends to suffer from drought from time to time. According to the Council of Australian Governments (COAG) (2009) they consolidated the national definition of a resilient community during drought periods. Australia's national strategy identified characteristics such as the capacity to function well under stress, successful adaption, self-reliance, and social

capacity (COAG, 2009). In this section, the resources and risks within the community that have an impact on the development of adolescents are discussed.

2.4.1 Community-related risks

Community-related risks refer to factors and risks that make it difficult for adolescents to positively adapt to harsh conditions. According to Kagee et al. (2014), key problems that have been identified as a community risk facing adolescents are substance abuse, unemployment, early sexual debut and teenage pregnancy, lack of community resources, and mental health problems, all making them vulnerable to HIV. These social problems are external to household dynamics (Kagee et al., 2014).

Ettekal & Ladd (2015) supported Kagee et al.'s (2014) theory above and added that childhood aggression and deviant friendships between adolescents often predict an increase in delinquency, substance abuse, and violence. High-risk youth are vulnerable to negative peer influences and peer aggression during adolescence, reinforcing problem behaviour (Kagee et al., 2014). Consequently, adolescents tend to select peers based on similarities in aggression and popularity and then to adopt aggression from their peers (Laninga-Wijnen et al., 2017; Stoltz, Cillessen, van den Berg, & Gommans, 2016).

In some instances, poor adolescent mental health is associated with material disadvantages and self-identification with historically disadvantaged groups. A study conducted in Cape Town found that across all race groups (white, black, coloured, and Indian), adolescents growing up in post-apartheid South Africa, reportedly, experienced a high prevalence of depression, anxiety, and post-traumatic stress disorder (PTSD) if they self-identified as marginalised (Das-Munshi et al., 2016). In addition to the negative effects of material disadvantage, a study by Idemudia and Sekano (2016) found that negative characteristics in an adolescent's nature (e.g., extraversion, neuroticism, and psychoticism), could predispose the adolescent to mental illness.

Appointment of unqualified teachers contributes significantly to community risk factors. The lack of funds and resources available to communities and schools are

often the cause of placing teachers in a field of teaching in which they are not competent. This can be referred to as out-of-field teaching given that the teacher is unqualified for a specific subject (Coetzee, 2015). In northern KwaZulu-Natal and eastern Mpumalanga, it is reported that when teachers are misplaced, it is counterproductive and results in failure to deliver quality education (Coetzee, 2015). Lack of support and funds in schools also influence the implementation of technological services. An example of failed attempts at implementing technological services is that new and innovative tools such as geographical information systems (GIS) are often implemented with great difficulty because of lack of funds and uneducated teachers (Breetzke, Eksteen, & Pretorius, 2011).

Adolescents often report biased and poor reactions to service providers with regards to counselling and HIV/AIDS testing, hence, this prevents them from accessing some of the available services (MacPhail, Pettifor, Coates, & Rees, 2008). Therefore, the effect of voluntary counselling and testing among some adolescents, according to MacPhail et al. (2008), is unknown. In addition, adolescents reported the poor or negative attitudes of nursing staff and their mistrust of counselling quality as barriers to accessing voluntary counselling and testing. As a result of inadequate support and stigmatisation by their peers, adolescents may find themselves committing crime as a way of expressing their frustration.

Another element that contributes to adolescents' resilience is poor enforcement of law and order, as well as inadequate support of them from the police services in South African law enforcement, resulting in high crime rates. Moreover, police violence is seen as another threat to the safety of the community given that it has a negative impact on members' health within these communities. As a result, members of a community do not confide in the police force (Desmond, Papachristos, & Kirk, 2016).

2.4.1.1 Drought-specific community risks

Drought-specific community risks refer to diminished social support, leaving adolescents vulnerable. Caldwell and Boyd (2009) explained how community support is often diminished and social cohesion is compromised by disasters;

people become more conservative in their attempts to share farming experiences and resources, and protect their coping mechanisms because they are competing for resources.

Therefore, in recent times, communities find that they cannot become economically or psychologically dependent on institutions in their community and larger society because interactions with these institutions run the risk of being ruptured by major disasters as well. As a result of modern, highly industrialised societies, communities are often forced to become more reliant on services and institutions in their local community and larger society. Hence, economic or psychological dependency can become a problem when interaction with these institutions is ruptured by a major disaster such as drought (COAG, 2009).

2.4.2 Community-related resources

At a community level, protective resources that promote adolescent resilience include peer support, teacher support, mentors, and effective schooling. A supportive and proficient community can create a caring and enabling environment for adolescent development (Guo, Li, & Sherr, 2012). Having reliable peer relationships provides individuals with a sense of hope and confidence to stand up to challenges they may face, therefore, enhancing their ability to positively adapt to adverse circumstances (Ebersöhn & Bouwer, 2013; Lethale & Pillay, 2013; Pienaar, Swanepoel, van Rensburg, & Heunis, 2011).

School engagement is a complex construct that involves aspects of behavioural, emotional, and cognitive development that are significant to adolescents (Lethale & Pillay, 2013; Lippman & Rivers, 2008). When these aspects are addressed, school engagement should support and empower adolescent development (Lethale & Pillay, 2013). Teachers are seen as resources within the school community given that they are often well educated and have a fresh perspective on adolescent behaviour and problem-solving skills (Ulvik & Langørgen, 2012).

Teachers can provide adolescents with emotional and instrumental support (Curby, Brock, & Hamre, 2013; Malecki & Demaray, 2006; Suldo et al., 2009; Yeung & Leadbeater, 2010). An example of the above is noted in teacher support

and adolescents' subjective well-being: A mixed-methods investigation was conducted, where 50 out of 401 students participated in focus groups to share their perceptions of teacher behaviour that communicates support. These adolescents (Caucasian, 50%; Hispanic/Latino, 16%; multiracial, 14%; Asian, 10%; African American, 8%) reported that teachers provide support when they connect with them on an emotional level, when they adopt diverse and best practice teaching strategies (and, therefore, boost adolescents' academic success and self-esteem), and when they ensure fairness in the classroom (Suldo et al., 2009).

In the school environment, adolescents are exposed to peers who can potentially provide them with support. Adolescent self-esteem is at times positively affected by peer support (Colarossi & Eccles, 2003). Peer support has also been identified as a means to suppress adolescent substance use by practising good self-control (Wills, Resko, Ainette, & Mendoza, 2004). Peer education and support serve to encourage health by preventing and reducing high-risk sexual behaviour among adolescents (Dennis, 2003; Visser, 2007).

In a study conducted by Visser (2007) in 13 secondary schools in Tshwane, South Africa, peer educators were identified and trained to implement HIV/AIDS prevention programmes, by facilitating class discussions and problem-solving, with support from teachers. In these programmes that were developed, teachers were often identified as role models to whom adolescents could look up. Role models are used as a strategy to reunite individual and group identity.

Role models include teachers, church leaders, and older friends because they are often symbols of achievement (Madhavan & Crowell, 2014). Choosing role models is a complex process that is affected by cultural, social, and economic factors. These role models, often referred to as heroes, are portrayed as people of special achievement who motivate positive behavioural change (Madhavan & Crowell, 2014; Pradeilles et al., 2016).

Madhavan and Crowell (2014) conducted a study to understand role models among black South African youth better, and reported that adolescent boys tend to

look up to athletes whereas girls look up to celebrities and performers. Another study published by UNICEF, on adolescent mental health in South Africa, reported that Choma magazine, which reaches one million girls and women, uses a local celebrity ambassador to promote health care services because as these adolescents are interested in what the celebrity has to say about health (Tshuma, Bhardwaj, Alexander, & Benjamin, n.d.).

Spiritual well-being and resilience are interrelated and reflect a bi-directional relationship in the well-being of adolescents. Brittian, Lewin and Norris, (2013) conducted a study of 55 black South African youth living in the Johannesburg-Soweto area, where the functions of religion and spiritual well-being were scrutinised. These adolescents identified religion as a source of support, providing both emotional and social support, a moral compass, and healthy development. The church strengthened social networks and often served as extended family.

Religious leaders are seen as role models within the community and, thus, have a role to play in improving adolescent health (Pradeilles et al., 2016). A study by Pradeilles et al. (2016) stated that religious leaders have proven to be knowledgeable on the issue of obesity, prevalent in South Africa, as well as access to resources that can be used in preventative initiatives. Spirituality has also been identified as an important coping resource. Themes relating to spirituality and identified by Greef and Loubser (2008) in a resilience study with isiXhosa-speaking families included “Gifts from God,” “Guidance,” “God's Works,” “God's Plan,” “Prayer,” and “Faith” (p. 5).

Services within a community play an important role in supporting adolescents' development. These refer to the services of libraries and municipalities, migrant organisations, and civil societies (Blair, 2010; Hlatshwayo & Vally, 2014). Migrant organisations and civil societies are seen as social agents that enrich the lives of migrant learners while providing them with the opportunity of education (Hlatshwayo & Vally, 2014).

In the South African context, libraries form part of Municipal services—a resource that provides information and access to books and computers for those who are

not able to buy them for themselves. Librarians, who manage the libraries, become an important source of support for adolescent—because they are exposed to literacy, theories of education, as well as adolescent development and are, therefore, equipped to create strategic plans that build quality services and programmes that assist in the development of adults. Furthermore, Blair (2010) stated that librarians should consider themselves educators who are free from the restrictions of a class and curriculum. In addition, municipalities provide services that promote adolescent sexual and reproductive health and well-being resources. A study on communication methods reported that adolescents prefer communicating by telephone or text about their sexual status because it provides privacy as opposed to face-to-face interactions that could elicit possible discrimination by judgemental health care providers (Dwadwa-Henda et al., 2010; Tshuma, Bhardwaj, Alexander, & Benjamin, n.d.).

Law is an important force in a community given that it promotes the common good, resolves disputes over limited resources, defends community members from evil, and encourages the community to do the right thing. Implementing law further regulates society, protects individuals, ensures peace and co-operation amongst community members and enforces rights (Bingham, 2010). Mosavel, Ahmed, Ports, and Simon (2015) identified strict laws and regulations as a means to bring about order and control in challenging circumstances. They believed that resilience must be complemented by social justice concerns about risks in a community.

2.4.2.1 Drought-specific community resources

Urban and rural communities need to manage water shortages by preparing for predicted changes in climate. In order to plan effectively for shortages due to drought, individuals need assistance from municipalities and government within these communities. Drought-specific community resources that have been identified as beneficial to community members refer to that of social capital. Social capital is identified as a coping resource that will enable farming communities to positively adapt to the impacts of drought. Assigning finances to collective community strategies may be more beneficial as opposed to assigning finances to the individual needs of farming families. Collaboration and clarification of roles and

responsibilities have also been identified as key factors in successful planning for drought (Caldwell & Boyd, 2009).

Adolescents who have strong social networks in their microsystem are able to draw on shared materials and social resources to sustain them during a drought. Community education programmes are an important component in preparing for disasters and, additionally, community engagement is essential for delivering effective services in disaster contexts (Caldwell & Boyd, 2009). Education programmes and community engagement is identified within communities, however, in order to be successful, these actions from the community need to be amplified.

2.5 MACROSYSTEM

In this study, the macrosystem is used to describe the culture in which individuals live and interact. The macrosystem refers to the outer layer of the adolescent and comprises of cultural values, customs, and laws. These have a bi-directional influence throughout the macrosystems' interactions on all the layers (individual, micro-, meso-, and exosystem) (Berk, 2000; Bronfenbrenner, 1979). The macrosystem level also refers to state interventions, regulations, and political factors, which are implemented at this level (Berk, 2000).

Culture within the macrosystem has an important role in bringing populations together in order to address necessary changes, as well as to enable actions that ensure change. In some instances, the continual development of culture can be magnified by personal sacrifices (such as those sacrifices seen in the history of South Africa, through the person of Nelson Mandela). Some of these sacrifices can be contributed to the consideration of wisdom, experiences, and knowledge gained over time (Khan, 2016). Furthermore, Khan (2016) discussed culture and what engages individuals on all systemic levels: understandings, feelings, and sense of depth.

What follows hereunder will be grouped into different policies and cultural values as mentioned above. More specifically, I discuss rituals, state initiatives, global aid, and policies that may impede or enable adolescents resilience.

2.5.1 Macro-level risks

Societal risk factors present in the macrosystem consist of discrimination, stigma, social and economic marginalisations, and inadequate public policies and health care services (Mutumba & Harper, 2015). The macro-level further refers to the system level at which the adolescent interacts with other role players (i.e., neighbours, social services, and politics) and, therefore, risks at this level could refer to inadequate political policies, actions, cultural values, and health-related status (HIV), which could adversely impact the manner in which the adolescent interacts with the community (Mutumba & Harper, 2015).

In some instances, cultural practices may impede the health promotion of adolescents with regards to sexuality and discussion thereof. In addition, health-related policies regarding sexual health is often absent and, therefore, minimal support is available to these adolescents (Tsakani, Davhana-Maselesele, & Obi, 2011). In a study focusing on the “rites of passage to adulthood” initiation schools in Venda (a former South African homeland under the apartheid era), these reportedly do not provide adolescents with the relevant information required to adopt health-seeking behaviour in the context of HIV/AIDS (Malisha, Maharaj, & Rogan, 2008).

More specifically, Mark et al. (2017) stated that there is a lack of adolescent-friendly policies, globally, with clear guidelines. They further stated that there is slow progress on the inclusion of adolescents in national policies and strategies. Moreover, Mark et al. (2007) discussed adolescents’ needs and rights, specifically relating to those living with HIV, which are often overlooked and, as a result, national governments must adopt appropriate policies to ensure that adolescents receive suitable and supportive care.

The next policy addresses the risks experienced by adolescents in the educational environment. The inclusion education policy in South Africa lacks available guidelines to challenge the belief of “best interest” of parents and students. The shortage in available guidelines, consequently, fails to address the helplessness and hostility black parents experience from schools. As a result, schools “work the law” to avoid engagement with the principle of exclusion experienced by parents

and adolescents, whom the law had intended to protect (Sayed & Soudien, 2005, p. 123). This education inclusion policy is often ineffective due to ambiguity present in the policy. Often policies implemented in practice in education exclude more than their original intention to create a culture of inclusion (Sayed & Soudien, 2005).

Having reported on literature that discussed policies and the negative effect of these policies on adolescents, I now turn to the risks of cultural values, which also form part of the macrosystem as mentioned earlier. Cultural values and societal expectations present in some communities may often reproduce social injustices and entrapment. This entrapment is noticed in social interactions when personal and social ambitions are disturbed due to the rigid implementation of values (Eggerman & Panter-Brick, 2010; Panter-Brick, 2015). A study conducted on the influence of cultural orientation, alcohol expectancies, and self-efficacy on adolescent drinking behavior in Beijing found that the cultural beliefs adolescents orientate themselves with influence their drinking behaviour; having more Western and less traditional Chinese cultural orientation leads to more drinking and lower self-efficacy for regulating drinking in these adolescents (Shell, Newman, & Fang, 2010).

2.5.1.1 Drought-specific macro-level risks

Drought has widespread and significant impacts on the world's economy, environment, industries, and the wider communities (Hargrove, Juárez-Carillo, & Korc, 2015). Ineffective policies exacerbate aspects of poverty, lack of opportunities, and drought—which could result in adolescents falling prey to exploitation and human trafficking as a result of limited options and lack of resources (education, work) available to them. Drought management practices worldwide are reactive and, as a result, do not treat the underlying causes of vulnerability associated with the impact of drought (Wilhite, Sivakumar, & Pulwarty, 2014).

2.5.2 Macro systemic enablers

International and local literature states that the ability to positively adapt to adverse circumstances is nurtured by many protective resources that are rooted in culture.

Depending on situational circumstances and the interpretation of cultural values, beliefs, and practices by the adolescent and community, culture could enable resilience. In these instances, culture could offer opportunities and guidelines to adolescents in order to make meaning in their life, throughout the process of resilience (Masten & Wright, 2010; Theron & Theron, 2010).

Cultural values are described by Eggerman and Panter-Brick (2010) as the source to a better life. Throughout the study conducted by Eggerman and Panter-Brick (2010) on resilience and cultural values in three northern and central areas in Afghanistan, six key cultural values were identified by adolescents and caregivers, namely, faith, family unity, service, effort, morals, and honour. These values form the foundation of resilience according to this study. Some of these values, such as faith, have been discussed in the community section of the literature review (Section 2.4.2), however, faith is mentioned here too because it correlates to culture.

Due to structural barriers such as poverty, ineffective governance, and social injustices experienced by adolescents, structural barriers will have a determining factor on how culture supports the resilience of adolescents. According to Eggerman and Panter-Brick (2010), for many, service to family will involve interrupting further education and sacrificing personal dreams because the poverty they are experiencing, and their cultural values, require adolescent males to work and females to get married. At the same time, culture and religion also provide strength and comfort in environments where military and social institutions fail to provide social justice (Eggerman & Panter-Brick, 2010). Hence, the cultural values mentioned above serve as the foundation of resilience, and drive aspiration and dignity, but can also challenge resilience when cultural expectations limit personal aspirations.

A cultural and contextual resource available to promote resilience refers to ubuntu, which encourages positive human relations and is a contextual and cultural resource available to promote resilience (Theron, 2016; Theron & Theron, 2010). Ubuntu can be defined as an African philosophy that places emphasis on “being human through other people” (Mugumbate & Nyanguru, 2013, p. 83). Archbishop

Desmond Tutu viewed ubuntu as symbolising the backbone of African spirituality (Mugumbate & Nyanguru, 2013). Ubuntu is a principle of caring for each other's well-being and fostering the spirit of mutual support (Mugumbate & Nyanguru, 2013). Various South African studies (e.g., Mugumbate & Nyanguru, 2013; Theron, 2016; Theron & Theron, 2010) have reported that ubuntu values support the resilience of African adolescents.

Health care policies in South Africa are a crucial part of health and education awareness. More specifically, social, emotional, and mental health are important to sustain a healthy and productive society and are implemented in terms of early programmes for mental health promotion, early intervention, treatment, and care, which provide resilience in adolescents. South Africa's White Paper for Social Welfare (1997) states that social development is directed by principles such as democracy, ubuntu, equity, and collaboration to name a few (as cited in Mugumbate & Nyanguru, 2013). Therefore, I conclude that South Africa has resilience-enabling policies, however, the effectiveness with which they are implemented needs to be evaluated alongside their intention and execution.

Furthermore, social inclusion policies that are designed with caution, and consistently measured, have the potential to minimise health inequalities—and the ability to reduce exclusion, enhance equality within school environments, and uproot poverty in South Africa (Killingray, 2009; Rispel, De Sousa, and Molomo, 2009). A study by Rispel et al. (2009) of social inclusion policies in six selected countries, namely, Botswana, Mozambique, South Africa, Ethiopia, Nigeria, and Zimbabwe, addressed three categories of social inclusion, namely, “cash transfers, free social services and specific institutional arrangements for programme integration” (p. 10); these authors concluded that civil societies need to address health inequalities and hold government accountable for improvements in health and reduced health inequalities. Recommendations from this study are directed towards “Sub-Saharan governments” (Rispel et al., 2009, p. 10) where they emphasised the importance of recognising health inequalities, paying attention to social policy designs, and ensuring that conditions are in place for effective policy implementation. The aim of evaluating the above three policies (cash transfers, free social services, and specific institutional arrangements for

programme integration) is to ensure the availability of services that guarantee universal access to health, education, and protective services, which empower and support the most vulnerable.

2.5.2.1 Drought-specific macro-level resources

South Africa, like Australia, is a country primarily waterless and exposed to a climate that is constantly changing. Both countries are currently refining their approaches to drought management given that adequate water policies are important to health and well-being. Both countries have been making use of science in improving the monitoring and assessment of drought, as well as improving the management of the land to support farming communities (O’Meagher, du Pisani, & White, 1998).

Therefore, improving water policies is urgent because governments around the world face significant challenges in managing their water sources effectively. Specific emphasis should be given to the way the water policies are designed and implemented, and the learning from past and current water usage advancements can increase the development of successful policies for future water improvements (OECD, 2012). Early detection of drought can ensure effective drought policies to alleviate the negative impact of drought on adolescents (Barua, Ng, & Perera, 2011).

In a study conducted in Victoria, Australia, Barua, Ng, and Perera (2011) reported that drought forecasting is important for managing and planning water mitigation. Anticipating water shortages is important in preparing adolescents for the shortages because adolescents reportedly feel overwhelmed when faced with drought. Education policies are relevant in such a drought situation because adolescents seek coordinated support from their social ecologies. These refer to schools and education programmes that are able to inform them of the mental health impact of drought (Carnie et al., 2011). The way in which drought policy in South Africa is implemented can either be an enabler or a barrier to managing drought.

2.6 CONCLUSION

In summary, this chapter illustrated multiple South African and international studies that explain risks faced by adolescents and the systemic resilience enablers available for adolescents going through a drought crisis. I have stated that the individual, family, community, and culture can be an anchor of resilience as well as a source of threat (Eggerman & Panter-Brick, 2010). Importantly, none of the South African studies that I included in my literature review was specific to the resilience of male adolescents, who are challenged by risks associated with drought. This gap contributes to the importance of my study. The next chapter explains the methodology I used to answer the research question: “How do adolescent males from Leandra explain their resilience to drought-related challenges?”

3. CHAPTER THREE: METHODOLOGY

3.1 INTRODUCTION

This chapter illuminates the purpose for conducting my study, based on the gaps identified in existing research. Following the purpose statement, the research methodology and research design are discussed. Then the metatheoretical paradigm and methodological paradigm are discussed. Followed by this, is the research design—a brief explanation of the participants followed by the data generation, analysis, and interpretation. An explanation of the quality criteria and ethical considerations used through the research process concludes this chapter.

3.2 PURPOSE OF THE STUDY

The purpose of this study was to gain an understanding of how adolescent boys from Leandra explain their resilience to drought-related challenges. The aim of the study was to explore a reasonably new topic in research and, therefore, this study is exploratory in nature (Gray, 2009). The phenomenon of adolescent boys' resilience relating to drought is a relatively unexplored topic. Thus, my study aimed to gain initial insights and familiarity with this phenomenon that could, potentially, guide further investigation in the future (Collis & Hussey, 2014). Although exploratory research rarely provides conclusive answers, it provides an indication on what further research, if any, should be conducted (Collis & Hussey, 2014). Exploratory research has limitations, for example, it only provides initial, sometimes unstructured insights. The findings could, therefore, be considered as insignificant in the field of research (Martin, 2008; Nel, 2015). I have addressed this by clearly reporting all the steps followed throughout the research process.

3.3 PARADIGMATIC PERSPECTIVE

3.3.1 Meta-theoretical paradigm

For the purposes of this study, I chose a social constructivist paradigm, which indicates that reality is socially constructed. In my study, this reality is, therefore, based on the experiences of the adolescent participants (Bloomberg & Volpe, 2016). A social constructivist paradigm embraces diverse interpretations of the research phenomenon (in my study, the experience of drought as experienced by adolescent boys) as explained by multiple participants (as advised by Chambers,

2012; Dudovskiy, 2013). The choice to use the social constructivist paradigm reflected my belief in multiple realities, subjectivist understandings, as well as naturalistic surroundings (Ebersöhn, Ferreira, & Mnguni, 2008). In my study, social constructivism fits with the participants' use of group activities as a means to construct knowledge that I interpreted in order to answer my research question: "How do adolescent boys from Leandra explain their resilience to drought-related challenges?"

The social constructivist paradigm approaches knowledge from an etic perspective, which means that we, as researchers, were on the outside and aimed to achieve an objective view of the resilience of adolescent boys within a context of drought (Killam, 2013). This paradigm was relevant to my study because we (my fellow master's students and I) went to Leandra in Mpumalanga. We were, therefore, outsiders working to achieve an understanding of adolescent experiences with drought and their resilience to the challenge of drought.

An advantage of using this paradigm is that research was carried out in collaboration with the participants, and co-generated knowledge in the community. As a result, participants were seen as co-researchers, and the research was not merely carried out on them (as advised by Chambers, 2012). As explained by Reid (2006), a benefit of this paradigm is that it allowed me to engage with adolescent boys' experiences of drought and to identify which resources contributed to their experience of resilience.

A disadvantage of the constructivist paradigm identified is that research conducted by an outsider (me, the researcher) implies that I brought my own experiences and positioning to the research, which could result in a biased researcher stance. Possible positioning or biases could be related to my economic position, gender (female), and that I attend university and do not experience drought hardships.

Strategies to prevent biased research that I implemented included acknowledging my assumptions and positioning, up-front, and the possible influence this could have on the research process and outcomes. Therefore, in order to overcome the above biases, I became the empathetic observer by remaining silent and objective

during group activities as well as inviting participants to share their experiences (Chambers, 2012).

3.3.2 Methodological paradigm

Social constructivism is often seen as an approach to qualitative research and, therefore, I used a qualitative approach in gathering data for the purposes of this study (Creswell, 2014). A qualitative approach analyses pictures, objects, and words and often uses open-ended questions in order to encourage participants to share their views about the research phenomenon (Creswell, 2014). For this study, open-ended questions were used when interacting with the adolescent participants in order to gather data on how they experienced drought, and their resilience processes. It is an emergent design given that there is no fixed method of gathering data (Hesse-Biber & Leavy, 2008). We, as researchers, were trained to adapt our research tools to suit our research participants and, as a result, took the emphasis off the researcher and focused on the participants and the importance of their contribution to the research (Jakobsen, 2012; Theron 2016).

An advantage of qualitative research is that it takes place in a naturalistic setting. As a result, the research was conducted in a community hall in Leandra, where we as researchers observed and interacted with the adolescent participants in their natural environment. The aim of the study was not to manipulate variables but, instead, to obtain a deep understanding of the drought phenomenon (Padgett, 2017). Secondly, working directly with participants allowed me to create a relationship of trust with the adolescent boys, which enhanced their willingness to share their experiences of drought (Creswell, 2014). The data was collected on 4–5 April, 2017. Qualitative research also includes outsiders (the researchers) and insiders (the participants). This insider–outsider research collaboration supported a deeper understanding of local insights and the likelihood that local perspectives and experiences of the adolescents were championed (Theron, 2016)—insiders being the adolescents of Leandra, and outsiders (Milligan, 2016) being us (the research master’s students). Considering an insider–outsider perspective, we made use of co-productive (i.e., participatory) methods of gathering data, and research participants were actively involved in co-analysing (i.e., explaining) the

data they produced and verifying the findings. As a result, we returned to Leandra on 24 June 2017 for member checking.

Following this, are factors that could be experienced as possible disadvantages in qualitative research which included, firstly, dealing with gatekeepers (Theron, 2016). Gatekeepers could include people such as a school principal, or community leader, or chief. These people, based on the purpose of the research and information they have been provided with, will either allow or deny researchers access into the community. In this specific instance, we were provided access into the community by community partner, Khulisa Social Solutions.

Secondly, researchers who have not been well trained can be seen as a disadvantage given that we (the researchers) were considered a research tool and, if we were not well trained, we could compromise the data collection or data interpretation process. We, as researchers, also needed to be comfortable using unstructured or semi-structured data collection techniques and working with an emergent design. This meant that if any adolescent participant was not comfortable with an activity, we (the researchers) were required to be trained to such an extent that we were able to introduce a new activity that would enable us to collect the necessary data (Xu & Storr, 2012). This potential disadvantage was addressed by me and my fellow student-researchers being workshopped at University of Pretoria in a variety of suitable methods, and feeling confident to use them (on 3 April, 2017).

Lastly, qualitative research can be energy intensive and time consuming because it is an interactive process and requires an adequate amount of time to gather enough data. A strategy implemented here was to plan and ensure that enough time was set aside for each step in the research process. I do, however, understand that when working with participants anything can happen and, as a result, I could only plan so much.

3.4 METHODOLOGY

3.4.1 Research design

For my study, I adopted a phenomenological design for my qualitative research. Within qualitative research, phenomenological research is a design option. Phenomenological research is a design of inquiry that comes from psychology and philosophy in which the researcher explores participants' lived experiences of a phenomenon (Creswell, 2014). Phenomenology, as a research design, seeks to explain the essence of things that cannot be revealed by ordinary observation (Lin, 2013). For my research, the phenomenon is the resilience of adolescent boys who are challenged by drought.

I will now discuss the advantages and disadvantages of a phenomenological research design. Advantages of phenomenological research include the researcher gathering rich and detailed, subjective descriptions of individual experiences of a specific phenomenon that adds to the quality of the study (Boyd, 2017). In the study, the participants reported on their experiences of drought. The explanations of these personal experiences contribute to the rich data. Phenomenology is useful because it facilitates rich explanations of a specific research phenomenon that are grounded in people's lived experiences. In this way, participants' perspectives are prioritised and academic voices become less important (Aarts et al., 2015). I was able to gather rich information from the participants given that a phenomenological research design does not require a large sample group (there were 43 participants who were divided into small groups of eight). For this reason, I had the opportunity to speak to some of the participants in my group about their experiences of drought.

A possible disadvantage of using a phenomenological design that may be experienced when carrying out research is a language barrier and, often because of this, participants do not understand what is asked of them. This barrier was avoided given that participant selection was purposive (Shi, 2011), that is, the selected participants met the requirement of speaking, reading, and writing comfortably in English.

3.4.2 Participants

The GRCF study aimed to recruit a total of 50 participants, however, only 43 participated in the Mpumalanga area. These included nine adolescent boys who fitted my study's selection criteria, namely, adolescent boys between 15 and 17 years old who were comfortable in speaking, reading, and writing in English and, lastly, who live in the Leandra, Mpumalanga, area. The average age of the boys was 16 years, however, not all the adolescent boys provided us with proof of their ages (identity document). Their home language was mostly isiZulu and they were all school attending. Within my study, focusing on adolescent boys resulted in a small number of boys being present for the study (i.e., nine). This may have potential limitations given that data saturation is usually achieved at 10 to 15 participants (Morse, 2015). Possible implications of the small number of boys are that it could provide skewed or thin results because there is not a wide variety of explanations of these adolescent boys' experiences—reducing the power of the study. As a result, there is a possibility of less conclusive results because it is not a true reflection of the population of South African boys, and which could lead to assumptions and biases if the findings are transferred to the larger population.

3.4.3 Data generation

Two arts-based methods, namely body mapping (Ebersöhn, Ferreira, van der Walt, & Moen, 2016) and sand-tray work (Nel, 2015) were applied to generate the necessary data relevant to my study's focus.

3.4.3.1 Body mapping

Body maps focused on the present, and experiences of the creator in a specific situation. Each participant chose a partner who outlined his body. Then, participants reflected on the guiding questions (stated below). They drew on the body to explain how the drought affected them personally and what supported their physical, mental, and emotional health (see Figure 3.1).

I used the following prompts—guiding questions—developed in conjunction with the community leaders (Khulisa Social Solutions) to ensure that the correct

colloquialisms were used to steer and assist participants in explaining, through their drawings (body maps), how they were affected by the drought:

- How does drought affect the health of young people in this community?
- When there is a drought, what helps you stay healthy (i) in your body, (ii) in your mind, and (iii) in your heart?

De Jager, Tewson, Ludlow, and Boydell (2016) viewed this method as therapeutic. In my own experience, it ensured the adolescent boys were at sufficient ease to share their experiences. I used this method because I found that it aided the participants in gaining an understanding of themselves, their bodies, and the world in which they live, within the context of drought.



Figure 3.1: Body map of participant

3.4.3.2 Sand-tray work

Traditionally, sand-tray or sand-play work refers to a therapeutic use of sand. It is an image-based modality and is considered a non-threatening approach to therapy because the participant chooses what he or she she wishes to share (Turner & Unnsteinsdottir, 2011). However, the GRCF study did not use sand-tray work in this traditional sense because there were not enough sand trays for eight groups. Instead, each group chose a space outside, sand was poured in the group's space, and they worked on it together (see Figure 3.2). They made use of figurines to illustrate which resources in their systems support their resilience to

drought. The sand-tray activity was led by the participants. This activity made use of the following prompts or guiding questions in explaining their sand trays:

- What does it mean for a young person to be OK when there is drought?
- What or who makes it possible for young people to be OK when there is drought?

The mediums of sand, water, and figurines were simply used to encourage visual conceptualisations of what or who enables resilience. Nel (2015) explained that adolescent boys use sand trays as a mode of expressing the inner world of the self; it enabled them to express their inner world, allowing me to understand which personal strengths these adolescent boys drew on to support their resilience. As de Jager et al. (2016) put it, this method typically puts the participants at ease to share their experiences of drought because it is unobtrusive in nature. The advantage of this sand-tray work is that I was able to gain a rich description from the adolescent boys as to which resources they make use of within their system to support their resilience to drought (Draper, Ritter, & Willingham, 2003).

Disadvantages that I experienced were that my fellow researchers gained different understandings and, therefore, different interpretations of what they had observed from the sand trays (de Munck & Sobo, 1998). In order to circumvent this challenge, member checking was applied (as mentioned previously). The second challenge experienced, which could have adverse consequences to the trustworthiness of the data generated in all of the above, was not considering the information adolescents had excluded from their activities, for example, if something resilience-enabling was not in their sand tray models then those unspoken experiences could not be analysed. This was addressed by probing participants to elaborate on their stories that unfolded in the sand-tray activity (Karnieli-Miller, Strier, & Pessach, 2009).



Figure 3.2: Sand-tray illustration of Group 1

3.4.4 Data analysis and interpretation

For this study, I adopted an inductive thematic analysis to analyse the verbatim responses of the adolescent boys. I made use of an inductive thematic content analysis approach, which is a systematic approach to analysing qualitative data as well as summarising and identifying the main themes (Taylor-Powell & Renner, 2003). Inductive thematic analysis refers to a process where themes emerge from data (Braun & Clarke, 2006; Maree, 2012; Mayring, 2004) as I directly examined the data generated by the adolescent boys to answer my research question: “How do adolescent boys from Leandra explain their resilience to drought-related challenges?”

More specifically, I implemented thematic analysis to identify and highlight themes in the data (Mills, Durepos, & Wiebe, 2010). A theme captures an important aspect of the data in relation to the research question, as stated earlier. Inductive thematic content analysis interprets various aspects, which cannot be predicted because the themes emerge during the analyses of the data (Braun & Clarke, 2006). In inductive analysis, a theme does not need to be present in every data set; it is simply something that carries significant importance because it is related to the research (Braun & Clarke, 2006).

I made use of thematic analysis for my research because it allowed for possibilities of interpretation, and the opportunity to identify variables that influence resilience. The participants’ explanations were important and, as a result, I used their explanations as the basis of the analysis. Thematic analysis starts with precise

content (i.e., participants' explanations) and then moves towards wider insights via themes that are effectively linked to data (Braun & Clarke, 2006).

The most important reason for choosing inductive thematic data analysis was that, similar to phenomenology, it tried to understand the meaning people attach to their lived experiences of drought, and obtained information and themes from their insights. It further identified similarities and differences in participants' insights (King, 2004). Some challenges I experienced when analysing the data was to stay attentive to the question being analysed as well as the purpose of the research method. A second challenge was not considering the unspoken experiences of adolescents. I addressed this by ensuring I probed the participants during the activity and by referring back to the recordings of their explanations.

The six phases of thematic data analysis that I implemented in order to derive themes as stated by Braun and Clarke (2006) are discussed below.

3.4.4.1 Phase 1: Becoming familiar with the data

It is essential to become immersed in the data. I immersed myself by reading and rereading the data actively. I worked with smaller sections (e.g., all the data relating to adolescent boys' body maps in a specific group) so that rereading of the data did not feel time consuming. I took notes of common ideas that arose from the data and marked ideas for coding (Braun & Clarke, 2006).

3.4.4.2 Phase 2: Generating initial codes

To identify information that was relevant to my study, specifically, I coded the data generated by the boys and focused on data that related to resilience and drought. I did this manually (i.e., I did not use computer software). I worked systematically through the data set paying attention to each data item and identifying relevant aspects of the data (Braun & Clarke, 2006). For an example of how I coded a segment of the data, see Addendum A.

3.4.4.3 Phase 3: Searching for themes

Open codes were turned into ³candidate themes by highlighting similar codes in the same colour. This enabled me to sort the codes that were similar into specific themes. I then considered how the open codes related, or formed themes, and the relationship between themes (Braun & Clarke, 2006, see Addendum A).

3.4.4.4 Phase 4: Reviewing themes

Phase 4 was executed to refine the candidate themes identified in Phase 3. I started by refining the themes because some themes were not really themes due to not having enough data to support them. I used two levels to refining themes; Level 1 involved reviewing the level of the coded data. This meant I had to read all the themes and codes and identify if they formed a pattern. If candidate themes did not fit, I considered if the theme was wrong or perhaps some codes just simply didn't fit. For example, the theme of formal pragmatic initiatives was a candidate theme identified, however, when I checked again it did not show any relation to my data set of adolescent males. I, therefore, excluded this theme. Level 2 refers to the entire data set. At this level, I identified the validity of the individual themes in relation to the data set. At the end of Phase 4, I had more refined themes and a good idea of what all my themes were and how they fit together (Braun & Clarke, 2006).

3.4.4.5 Phase 5: Defining and naming themes

I defined the themes by identifying the core of each theme. For each theme, I wrote a detailed explanation by discussing every theme individually and in relation to each other. When explaining the themes, I identified potential sub-themes. Sub-themes are important for providing structure to a large theme (Braun & Clarke, 2006). Particularly relating to my findings chapter, Chapter 4, I did not divide my theme into sub-themes. Instead, I stated my sub research question and, under this, the various themes that answer the sub question. For example,

- “What do boys do in order to support their resilience?”

³ This process was to show how I coded and developed candidate themes. As a result, there are some discrepancies to the themes in my findings chapter (Chapter 4).

- Theme 1: Adolescent boys talk to caring others
- Theme 2: Adolescent boys engage in sport and creative activities
- Theme 3: Adolescent boys pray to God and ancestors. (see Chapter 4)

3.4.4.6 Phase 6: Producing the report

This phase started with fully worked out themes, and involved the final analysis and writing of the report. The aim of thematic analysis was to tell a complicated story that answered my research question in a way that could convince readers of its trustworthiness. It was important that the report provided a logical and coherent story and was non repetitive. My write-up (see Chapter 4) provided sufficient evidence of the themes within the data (Braun & Clarke, 2006). Ultimately, this mini-dissertation is the report of the research undertaken.

3.5 QUALITY CRITERIA

Guba and Lincoln (1994) referred to five criteria to ensure trustworthiness in qualitative research. These criteria are credibility, transferability, dependability, confirmability, and lastly, authenticity. I paid particular attention to these terms as they relate to qualitative research to ensure quality and valid research.

3.5.1 Credibility

Credibility refers to the findings of the research as being believable. To ensure the accuracy of findings, I used member checking, data triangulation, and voice recorders (Morse, 2015). Member checking is a process of taking the collected data to the participants, which they check to confirm that data collected was transcribed correctly (Birt, Scott, Cavers, Campbell, & Walter, 2016). Member checking was achieved by going back to the research site (Leandra) on 24 June, 2017 where all researchers discussed the findings with the participants in order to verify and validate our interpretations. I also triangulated the data that was collected through body mapping as well as sand trays. My peers and I also made use of a voice recorder, with which I recorded the participants' answers and then transcribed my group's recordings word for word. In this way, my own assumptions were not considered. After all the research students transcribed their groups work, I read through the activities (body mapping and sand trays) highlighting only the adolescent boy participants' responses.

3.5.2 Transferability

Transferability refers to the degree in which the findings can be transferred to another context (Merriam, 2009). Transferability is achieved if the findings have meaning for individuals who were not part of the research (Houghton, Casey, Shaw, & Murphy, 2013). As a researcher, I improved transferability by providing a rich description of the context and participants (Merriam, 2009). A detailed description was provided above (Chapter 3.4.2 Participants) as well as contextualisation (Chapter 1.8 Methodology).

3.5.3 Dependability

Dependability ensures that findings can be repeated and ensures that, as a researcher, I understand the methods and their effectiveness. I was trained in the data collection methods at the University of Pretoria by the academic leads of the greater project, and was provided with protocols for each activity with standardised instructions as well as probing questions (see Addendum B). A study is dependable if another researcher concludes the same findings with similar participants in similar conditions (Koch, 2006). This was proven by working in a group with the other master's student researchers, where we had consensus discussions for coding the findings.

3.5.4 Confirmability

Confirmability refers to ensuring, as far as possible, that the findings of the study can be confirmed by another researcher; therefore, the findings come directly from the data and not the researcher (de Vos, Strydom, Fouché, & Delport, 2011). One method used in the research process to ensure confirmability was through reflections (McMillian & Schumacher, 2010). Furthermore, confirmability questions refer to how the findings are supported by the collected data. This process would identify if I was biased during my analysis of the data. To this end, I include an audit trail (see Addendum C) to document how I made coding decisions. Another way to ensure confirmability is by providing rich quotes from participants, which represent themes that emerged from the data (Cope, 2013). I added rich quotes to the themes presented in Chapter 4.

3.5.5 Authenticity

Authenticity is the extent to which I am able to show different realities by being fair as to which evidence I include in my themes (Conelly, 2016). For example, only including examples that answer my research questions. The evidence included should, therefore, identify multiple realities as well as accurately convey the experiences of the participants (Cope, 2013). Each facilitator, including myself, further ensured the authenticity of this study by recording what the participants had said and then, where possible, transcribe verbatim what they had shared (unless they spoke in their mother tongue). The study shared the transcripts amongst the various groups in the study. By transcribing the data verbatim, and not excluding any parts of the participants' explanations, we all contributed to authenticity.

3.6 ETHICAL CONSIDERATIONS

The greater project, "Patterns of Resilience Among Young People in a Community Affected by Drought: Historical and Contextual Perspectives," has ethical clearance (UP 16/11/02) awarded on the basis that all collaborating researchers, including myself, will honour core ethics principles. The greater project followed the ethical principles of informed consent (and parental or caregiver co-consent if participants are minors), voluntary participation, permission to audio and video record, right to withdraw, and limited anonymity and confidentiality (limited because of group work), which I will discuss more in-depth below. I also received clearance for my study (see Addendum D).

3.6.1 Informed consent

Young people were well informed (by Khulisa) about the study, and then invited to give their own written consent. Informed consent refers to fully informing the research participant about the aspects of the research in order to maintain ethical practice (Christensen, Burke Johnson, & Turner, 2015). For example, that they participate voluntarily and that they can leave the study at any time without ill-effect or harm. At the same time, this provided a basis for voluntary consent or withdrawal (Ebersöhn, Ferreira, & Mnguni, 2008). This was achieved by providing the adolescent participants with consent packs (see Addendum E) that were

explained to them in a plain language, as well as training them to be co-researchers.

Participants who are younger than 18 years provide informed consent from parents or guardians (Theron, 2016). Considering that my study's participants were between the ages of 14 and 17 years, they were not of the legal age to give consent. Therefore, I received co-consent from parents or legal guardians of the participants. The importance of free choice was further emphasised during the January 2017 workshop teaching Khulisa members about recruitment. Assent is described as "the agreement from a minor to participate in research after receiving an age-appropriate explanation of the study" (Christensen et al., 2015).

Specific to the greater project as mentioned earlier, flyers were distributed by branch offices in Secunda (see Addendum F). The flyers were distributed in hard copy and on social media. Those who responded to the flyer were given an information pack and assent/consent forms. The flyer made no mention that participants would be compensated so as not to coerce participation. Young people were then asked to return the completed forms to Khulisa, thereby minimising opportunity for researcher persuasion to participate. The project lead (Professor Angie Hart) and the South African lead (Professor Linda Theron) had workshopped Khulisa members on ethical recruitment on 19 January 2017.

3.6.2 Privacy, confidentiality, and anonymity

Confidentiality can be defined as not revealing information obtained from a research participant to anyone outside of the research group in order to protect the participants from any harm (Christensen et al. 2015). Due to the group work, confidentiality was limited within this regard because they were working in small groups. Furthermore, confidentiality goes hand-in-hand with anonymity, which involves keeping the identity of the research participants unknown. The names of participants were not released to anyone outside of the project to ensure confidentiality.

Participants were allowed to choose which level of disclosure they wished for their true identities. This meant that they were given the option to either use their real

names or choose a pseudonym. Based on what they chose, they were addressed accordingly. When writing up my findings, where possible, I reported findings according to their name or pseudonym. All artefacts (drawings) were also linked to the pseudonym where possible.

3.6.3 Conflict of interest

Conflict of interest would be if the research was conducted for personal gain and not for the benefit of participants or community at large. Participants learned research and dissemination skills and were made aware of resilience resources they have access to for future challenges.

3.6.4 Limiting harm or risk

This involved taking responsibility to protect participants against harm. Participants were thoroughly informed beforehand about the potential impact of the research. This information offered participants the opportunity to withdraw from the study if they wished to do so (de Vos & Delpont, 2005). Potential risks to the participants that were considered beforehand included participants spending a full day participating on 4 and 5 April 2017, and again on 24 and 25 June 2017. Strategies to minimise risks included providing tea and sandwiches in the morning, a lunch break, and a snack in the afternoon. On 23 June, participants spent half a day after school participating and received lunch, cold drinks, and afternoon snack. Another potential risk was being comfortable in speaking English, which could be experienced as tiring given that this was not the participants' home language. They were given the option to speak in their home language and we recorded their responses. I also asked their peers if they could translate their responses.

3.6.5 Reciprocity

Reciprocity is defined as an on-going process of exchange, and aims to establish and maintain equality between all parties involved in the research process (Maiter, Simich, Jacobson, & Wise, 2008). Linking this definition to research, I formed a relationship with the adolescent participants and the community at large so that the study would benefit everyone involved. I did this by ensuring an equal relationship between myself and the participants despite differences in age, race,

gender, and status. I ensured a relationship was formed by having an icebreaker activity where I shared information about myself and then asked them to do the same. For example, name, age, and something interesting about oneself.

3.6.6 Remuneration

Remuneration, in terms of research, means that each participant will receive money or rewards for taking part in the research. This could be unethical if it is used to coerce the participants to join the study. If the research study requires participants to be remunerated then this needs to be cleared with the ethical board (University of Waterloo, 2014). As a result of the activities falling on a number of days, the community partner (Khulisa) encouraged us to compensate the participants (R150 per day, as a rule of thumb). There was no mention of this remuneration in the recruitment material so as to limit any coercion.

3.7 CONCLUSION

In summary, this chapter described how I worked qualitatively with nine adolescent boys, within the greater GRCF project, to better understand their resilience in the context of drought. The next chapter documents the findings that resulted from this work.

4. CHAPTER FOUR: FINDINGS

4.1 INTRODUCTION

This chapter is structured into two themes. These themes discuss the findings for the sub-questions of my research. The first being, “What do adolescent boys do to support their resilience during times of drought?” The second section will provide findings for my second sub-question, “Which social ecological resources support the resilience of adolescent boys within a context of drought drought?” I conclude this chapter by combining the answers to the sub-questions in order to shed light on the question, “How do adolescent boys from Leandra explain their resilience to drought-related challenges?”

4.2 THEMES RELATING TO WHAT BOYS DO TO SUPPORT THEIR RESILIENCE DURING TIMES OF DROUGHT

4.2.1 Theme 1: Boys engage in sport and creative activities

Engagement in recreational activities can include physical activities (i.e., running, playing soccer, or basketball) as well as adolescent boys immersing themselves in creative activities (i.e., listening to music, reading, writing stories, and lyrics) as a means of distracting themselves from their current reality (drought) and keeping them emotionally and mentally strong. This theme provides evidence of how adolescent boys keep themselves occupied in a healthy way. In total, nine of the nine adolescent boy participants reported that engaging in some form of physical or creative activity supported their resilience during times of drought.

For example, Fission explained that listening to music keeps him preoccupied from the current drought situation. He said:

This is me, listening to my music at home, yeah, trying to forget about all the bad things that are happening in drought. So, yes.⁴ (L1014–1016)

Another example illustrating that the engagement in activities can be used as a means of distracting the self is by Junior, a 15-year-old adolescent. He explained that keeping himself busy with physical activities enables him to stay distracted. He said:

⁴ (L1014–1016) refers to Lines number 1014–1016 of transcripts of participants.

To play, to play soccer or go to training it relaxes my mind. . . . And it makes me forget about my problems . . . for that type of . . . thing that I'm facing like drought. (L626–628)

As a third example, Hakeem, explained that he reads and writes stories as well as writes lyrics to songs as a means of keeping his mind healthy during times of drought. He responded:

Ok most of the time, like I did the things that I do music and reading, reading, reading story and writing story and writing lyrics of my song. (L714–716)

Engaging in sport and creative activities has been reported as resilience enabling in both South African and international resilience literature (see for example, Hills et al., 2016; Malindi, 2014; Malindi & Machenjedge, 2012; Peacock-Villada, DeCelles, & Banda, 2007). These studies make reference to the resilience of both boys and girls. Among the published South Africa studies, Malindi and Machenjedge (2012), however, focused on boys in that they reported the resilience of male street youth. They noted that access to recreational (sporting) activities facilitated these boys' resilience. The importance of the influence of these activities on the resilience of adolescent boys, however, has not been researched in the context of drought. For this reason, my study makes a cautious contribution to literature relating to what supports the resilience of adolescent boys during periods of drought. These activities as a means of facilitating resilience is important for me, as an educational psychologist in training, as a resource to make use of when working with adolescent boys faced with adverse circumstances.

4.2.2 Theme 2: Boys talk to caring others

Adolescent boys talking to caring others as a resource that supports their resilience can be defined as any activity where these adolescent boys interact verbally with any friend, peer, family, community member, or community as a whole that encourages them in a positive manner during times of drought or provides them with valuable information on how to manage the effects of drought.

For example, when the facilitator asked, what supports you during times of drought, Njabulo answered by explaining that he speaks to his friend for encouragement during times of drought. He said:

Like if I have a friendship that is positive my friend will advise me “my friend don’t lose hope.” (L559–560)

Hakeem also explained that when he feels distressed because of the drought he is able to speak to his mother. He said:

Like, if I'm feeling sad I just talk to my mom. (L766–768)

Lastly, Lefa explained that he speaks to members of the community during times of drought to create awareness about the drought situation and to implement a plan of how to manage the drought. He said:

So, obviously, there is drought the community comes together and always for each and every time must speak or there must be an awareness that arises in that particular community. To tell them that, guys, this is what we are facing these are the steps that were taking and also do not look at the steps as they. . . . We need to look at both sides, the negatives and the positives of those steps we need to take . . . and yeah that's it. (L1200–1205)

This coming together of the community in times of drought implies that they care for one another’s well-being and want to ensure that the necessary steps are discussed in order to manage the negative aspects of drought because these steps enable resilience.

Adolescents’ speaking to caring others has been well supported by South African literature (see for example, Ebersöhn & Boucher, 2015; Theron, 2016; Vermeulen & Greeff, 2015). Vermeulen and Greeff (2015) made specific reference to the benefits that support the resilience of adolescents when speaking to caring others (e.g., emotional support). They, additionally, made reference to the value of support from external family, friends, or members from the local community that is provided to adolescents when speaking to community members. These supports were reported by the adolescent boy participants in my study. Lastly, when the boys opened up to family, friends, and community, they demonstrated effective communication. Effective communication is well supported by South African literature as facilitating the resilience of adolescents (Deist & Greeff, 2016; Lethale & Pillay, 2013; Yarosh et al., 2009). Cloete and Greeff (2015) further explained the role of communication by placing an emphasis on the nature of the communication in order to support resilience (i.e., affirming and positive).

As seen by the sources above, adolescents' speaking to caring others is well documented in South African resilience literature, however, this literature does not make specific reference to adolescent boys. As a result, further research on which caring others support the resilience of adolescent boys is required. In this way, my study makes a provisional contribution to South African literature on who supports these adolescent boys during times of drought.

4.2.3 Theme 3: Boys pray to God and have faith in their religion

Praying to God can be defined as adolescents either praying by themselves or with a family member to God. This prayer enables hope within adolescent boys, which supports their resilience and helps them to stay emotionally strong during times of drought. Four out of nine adolescent boys reported on prayer to God and ancestors in the findings.

For example, after the facilitator asked Hakeem to explain how what they had demonstrated in the sand trays helps him to be ok, he explained that praying helps him to manage drought. He said:

Then this is a church where people they find peace, they pray every day.
(L1023–1025)

Junior also explained that his belief system and prayer assists him in managing drought. He said:

I would like to start here . . . with my belief. . . . I'm a Christian so I pray, so I pray to God that he helps me through drought and other things. (L621–623)

Lastly, Fission explained how praying with his mother supports his resilience by giving him hope. He said:

To keep me strong emotionally, I pray, because my mother is a church person, so yeah, we pray together, we hope that things get better, because everything is possible with God. (L889–891)

Adolescent boys praying to God or ancestors has been well documented in South Africa resilience literature (see for example, Folkman & Moskowitz, 2004; Greef & Loubser, 2008; Malindi & Theron, 2011; Mohangi et al., 2011; Orme & Seipel, 2007). For example, spiritual characteristics refer to motivating and creating direction for the adolescents' efforts (Kumpfer, 1999). Similarly, spiritual

connectedness is defined as adhering to religion as well as having faith in religion (Malindi, 2014; Malindi & Theron, 2010). Mohangi et al. (2011) reported spiritual connectedness in relation to resilience because it has been identified as a means of positively adapting to adverse circumstances by providing a source of hope and motivation. Greeff and Loubser (2008) further reported on spirituality aspects such as prayer and faith as adding to the resilience of adolescents. Available literature views religion as a safe haven and source of comfort (Folkman & Moskowitz, 2004) that motivates adolescents during adverse state of affairs, providing them with hope of enhancing their life circumstances.

International literature supports the above findings of faith and spirituality as being common protective factors that assist adolescents in positively adapting to their adversities (Hegney et al., 2007). I can conclude that both South African and international literature supports faith-based resilience enabling resources (such as prayer). However, none of these resources discussed made specific reference to the faith-based resources adolescent boys draw on for resilience. Therefore further research is required that focuses on the resilience supporting resources of adolescent boys.

4.3 THEMES RELATING TO WHICH SOCIAL ECOLOGICAL RESOURCES SUPPORT BOYS' RESILIENCE WITHIN A CONTEXT OF DROUGHT

Based on the definition of social ecology in Chapter 1.6.4 (A social ecological framework recognises various layers of influence, for example, micro-, macro-, and ecosystems), I will structure this question according to the resources available to the adolescent boy and how these systems support the adolescents' world (Castro & Isaacowitz, 2018).

4.3.1 Theme 1: Protective service providers boost the resilience of adolescent boys

This theme can be defined as the availability of service providers such as police, fire-fighters, and soldiers who support the resilience of adolescent boys during times of drought. These service providers ensure accessibility to resources such as water, which may be required during drought or in the case of fires. The

presence of service providers also creates a sense of security and safety within the adolescent boys.

For example, after the facilitator posed the question to the adolescent participants of what does it mean to them to be OK during drought, and who or what makes it possible for them to manage drought, Njabulo responded by explaining that there are various service providers in place to protect adolescents. He said:

There are soldiers, or we can say police, they are there to protect us if ever there is a difficult situation we are facing. (L586–587)

He continued to say that there are also fire-fighters who protect them if there is a fire as fires are prevalent in drought conditions. As he explained:

Fire-fighters, if it happens that there's a . . . a fire, they will help us. (L590)

Another example is from Toni who explained that police and fire-fighters are able to support him when there is a fire by making resources such as water available. He said:

Other things that can support me when there's drought are these police and these fire-fighters—they can go and look somewhere where they will find water and produce us with some water. (630–632)

Junior also explained that the presence of police distracts them from their current situation. He said:

So we've used this police car as a, a police car to represent the sign of safety. . . . When the child is seeing the police around him or her, he or she feels safe so that makes the child happy and forget about the drought. (L898–901)

Protective service providers who heighten the resilience of adolescent boys have been well documented in both South African literature (for example, Blair, 2010; Hlatshwayo & Vally, 2014; Mosavel et al., 2015) as well as in international literature (for example, Caldwell & Boyd, 2009). Mosavel et al., (2015) reported on the importance of regulations being implemented by service providers into society as a means of ensuring order and control (e.g., police). They believed that effectively implemented laws support the resilience of adolescents during trying times. Although some of the international authors mentioned above reported on drought as a challenge faced by members of a community, as well as which resources are implemented to support the resilience of its members, the available

literature fails to pay close attention to the influence drought has on adolescent boys. In this way, my study makes a small contribution to resilience literature because it illustrates that adolescent boys draw on service providers to support their resilience.

4.3.2 Theme 2: Family and peers reduce adolescent boys' stress

This theme can be defined as family members and peers who make adolescents feel peaceful which, in turn, enhances their resilience. Family members support adolescents purely by being present, which results in the adolescent feeling at ease. Peers, on the other hand, ensure that their friends are able to unwind.

After the facilitator asked how the family supports them, Junior responded by saying that his family make him feel relaxed. He said:

When, when they're right by my side. . . . Ok, and let's say they're together and they're together with me . . . I feel so relaxed and then I can pray strong ideas and then come up with a solution to whatever the problem we're facing. (633–636)

Vusi explained that he relaxes with his friends in order to keep himself healthy. He said:

Chill with my friends so, like, chill with my friends. . . . Laugh and do all those things. . . . So that I can keep my heart healthy. (L775–777)

Tshiamo also explained that his friends and family members support him during times of drought, after the facilitator asked who or what supports him during a drought period. He responded by saying:

Friends, family members. (L608)

He continued by specifically stating that his mother and father support him within the family unit:

My mother and my father. (L610)

He was unable to clarify how they supported him but did state that he felt supporting him was part of their parental roles:

Because I am their child. (L612)

This theme aligns well with current resilience literature, which reports that both family and peers have a role in supporting adolescent resilience. South African resilience studies such as those of Theron (2016) and Collishaw et al. (2016) make reference to family members (i.e., the mother) as supporting the resilience of adolescents. International drought studies that I have sourced further view family as a source of resilience (Burgos et al., 2017; Hegney et al., 2007). As a result, adolescent boys' stress is counteracted by the support of family and peers, which further promotes their resilience. This, however, does not prove that this resilience will assist them in managing drought. I conclude this theme continues to align with resilience literature because it reports on how social ecologies support the resilience of adolescents. For example, the support of police and fire-fighters during drought.

In this chapter, I identified the various themes as they emerged during the data analysis of "What do boys do to support their resilience in times of drought and which social ecological resources support this resilience?" The discussion of the results is followed by a comparison of my findings in relation to existing South African and international literature. The results in my current study provide contradictions to current literature as well as new insights. These insights include the influence of social ecologies on their resilience. In Chapter 5, I discuss the conclusions and recommendations based on the findings of my study.

5. CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

In this chapter, I conclude my mini-dissertation by revisiting the questions and reflecting on the findings that were attained directly from the data. The findings obtained through the research study answer my primary research question and two secondary research questions stated in Chapter 1. Following the answers to my primary research question, the limitations specific to my study are discussed. The chapter concludes with recommendations for future researchers based on what I learned throughout the process.

5.2 QUESTIONS REVISITED

The primary research question: “How do adolescent boys from Leandra explain their resilience to drought-related challenges?” links to the following sub-questions:

- What do adolescent boys do to support their resilience during times of drought?
- Which social-ecological resources enhance the resilience of adolescent boys within the context of drought?

Figure 5.1 provides an illustrated summary of the findings of my study as they relate to the sub-questions above. The figure illustrates that adolescent boys engage in sports and creative activities, talk to caring others (friends, peers, family, or community members), and pray to God and have faith in religion as means to support their resilience during times of drought. Furthermore, social ecologies support adolescents’ resilience by ensuring access to protective services (fire-fighters and police) and encouraging family and peers promote a positive outlook on their circumstances as a means to manage their experiences of drought.

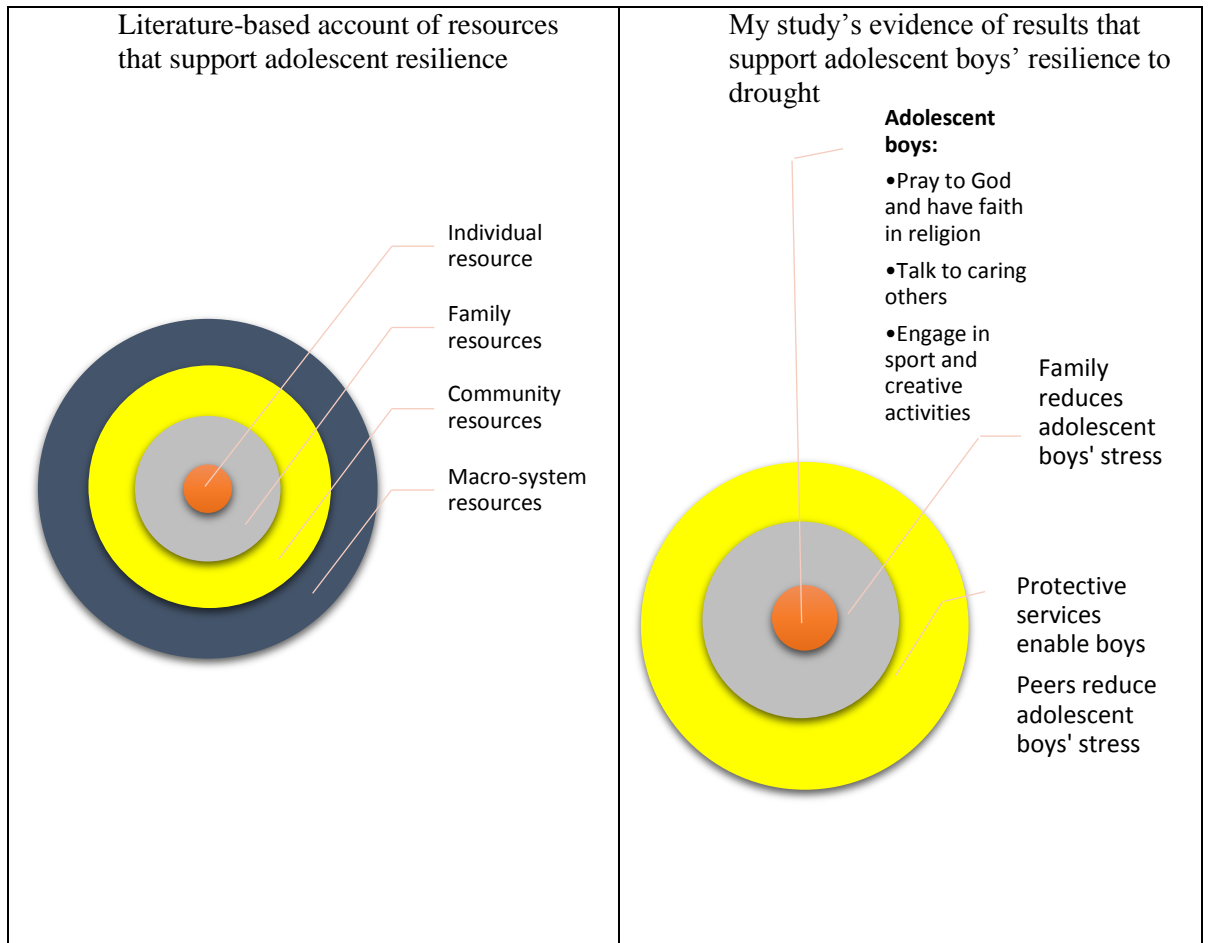


Figure 5.1 Summarised findings answering: “How do adolescent boys from Leandra explain their resilience to drought-related challenges?”

Figure 5.1 demonstrates which resources adolescent boys draw on in their explanations of their resilience to drought. Furthermore, the manner in which these adolescent boys explain their resilience echoes SERT (Ungar, 2011). SERT explained that individuals (such as adolescent boys) draw on resources in the systems they are part of to infuse resilience. The diagram above furthermore illustrates how their social ecologies support the resilience of adolescent boys during times of drought. These resilience processes reflect that adolescent boys adopt resilience processes that are modelled to them by others within their microsystems. The adolescent boys' social ecologies provided them with protective services, and family, and peers to promote a positive outlook.

As evident in Chapter 4 and Figure 5.1 above, adolescent boys draw on the above themes to explain their resilience to drought related challenges. They explained which resources from their individual, microsystems are resilience enabling. The

individual, more specifically, refers to the adolescent boys' own skills and attitudes that support their resilience. Finally, adolescents explained that they draw on the social microsystem to enable resilience. This was done was by engaging with supportive peers and family as well as service providers. Based on the figure above, it is clear that these adolescent boys draw on typical resilience enabling resources as opposed to non-typical resources (as discussed in Malindi & Theron, 2010) to support them during times of drought.

There was a minor distinction between my findings and current published research. The views of adolescent boys of who, within their social ecological system, supports their resilience differs to that reported in literature. Literature commonly discusses teachers within the school community as resilience enabling (for example, Curby et al., 2013; Lethale & Pillay, 2013; Malecki & Demaray, 2006; Suldo et al., 2009) but the adolescent boys in my study did not identify teachers as resilience enabling. This could be because of unqualified teachers with a lack of experience in working with adolescents. An alternative explanation could be that these adolescent boys have not had the opportunity to build a relationship with teachers on whom they can rely on to support their resilience.

Similarly, adolescent boys did not make reference to macrosystemic resources, such as cultural heritage as a means to support their resilience. As seen in chapter 2, literature discusses cultural heritage (Masten & Wright, 2010; Theron & Theron, 2010) as potentially resilience enabling amongst adolescents. More specifically, Eggerman and Panter-Brick (2010) refer to cultural values such as, family unity, service, effort, morals and honour as resilience enabling. South Africa's history of apartheid probably resulted in the degradation of many black South Africans' sense of culture and so eroded the cultural resilience enablers available to the adolescents. Furthermore, in my study, adolescents failed to make mention of the South African Government as a resource that contributes to their resilience during times of drought. A possible reason for this could be as a result of the ineffectiveness of governance and/or social injustices experienced by adolescents (Rispel et al, 2009; Van Breda & Theron, 2018). Civil societies need to hold government accountable for improvements in health care and reduce inequalities experienced by these adolescents. Van Breda and Theron (2018) explained

possible reasons why South African adolescents do not identify structural and cultural resources as resilience enabling. According to Van Breda and Theron (2018) the under-reporting of these could be due to adolescents' limited experience of structural resilience-enablers and/or a result of the disorganized implementation of enabling policies by South African Government.

5.3 LIMITATIONS OF THIS STUDY

I identified a number of limitations for this study during the research process. Initially, I thought that being part of a larger, organised project was great because my data would be collected from this study. I was, however, frustrated because the participants were recruited based on set criteria that excluded sex ratios (e.g., equal numbers of boys and girls). As a result, my sub-study had to rely on only nine adolescent boys (I wonder what kind of data I would have been able to obtain if there had been 25 adolescent boy participants). This limitation could further result in the findings not being rich, and the data not being saturated (Morse, 2015). The sample size limitation could additionally result in skewed perceptions of how these adolescent boys manage drought. Second, due to the limitation in available participants for my specific group, there were limited voices and so I kept quoting the same boys and, as a result, these boys failed to provide multiple perspectives. Third, as a result of some participants being shy or not considering themselves as experiencing drought (due to it being an everyday experience), often, the same participants spoke and not all perspectives were considered. Fourth, insights of these adolescent boys' experiences were based on a specific experience of drought. As a result of this drought experience, it is possible that, over time, these adolescent views of what enables resilience may change (Theron, 2017). For example, going back to Leandra for further research may result in these adolescents having matured into adults, thus, their experiences of hardships and how they manage adverse circumstance may have changed. Last, the study was carried out in a specific site (Leandra) and, as a result, findings may not be generalisable to other sites.

5.4 REFLEXIVITY

Reflexivity can be defined as a careful process of self-examination that involves being aware of the ways in which my own beliefs and opinions could influence the research findings (McMillan & Schumacher, 2010). As an educational psychologist in training, this research process was beneficial to me because it provided insights in how I might be able to support adolescents of a different context and gender in future practice. I gained insights that would benefit me as an educational psychologist given that I am now somewhat experienced in identifying resilience resources from a systemic perspective, which is beneficial to the resilience process of these individuals. The findings which I reported in Chapter 4 correlate with my experience as an educational psychologist in training; the findings followed an asset-based approach given that it identified resilience resources that the adolescent boys drew on from their social ecology (Buchanan & Miedema, 2017). In my experience as an educational psychologist in training, we are taught to adopt an asset-based approach when working with clients. Furthermore, I have noticed a common theme of adolescent boys drawing on their social ecologies for resilience, as seen in their explanations of who support them. I am aware that the context in which resilience is drawn on from other boys', differs to those resilience process of the adolescent boys from Leandra, due to the context.

This research further provided me with the opportunity to be sensitive to the ways in which my assumptions had the potential of influencing findings. I was able to do this because I had the opportunity to reflect on my assumptions and not avoid them as being irrelevant. Reflecting during the research process was advantageous because it allowed me to identify what worked well increasing the quality of my work. My original assumptions were:

I anticipate that this research will provide me with insight as to how adolescent boys explain their resilience, as well as which social ecologies support their resilience during times of drought. I further anticipate that the findings will provide me with insights into how an educational psychologist can facilitate resilience of adolescent boys to drought by using the participants' insights. Based on research from Turnbull et al. (2013) adolescent boys from Leandra, use the resources within their social ecological system to beat the odds brought by drought. More specifically, I expect that the devastation brought on by drought will become evident through the findings. For example, the lack of job opportunities for these adolescents in rural areas brought on by drought—which gives rise to further challenges such as hunger or malnourishment, lack of

water, and the impact of this on available sanitation. I hope to see how these boys build resilience against these odds.

The assumptions on which I started the research process correlate well with my findings. My findings provide me with insights as to how adolescent boys explain their resilience, and which social ecologies support their resilience. My findings, however, do not make clear the specific challenges these adolescent boys face during drought because I focused on resilience enabling resources. This is a cause for further research.

5.5 RECOMMENDATIONS

5.5.1 Recommendations relating to future research

These recommendations to future research correlate closely with the limitations of my study.

- To address the limited number of participants, I suggest that the future study has more than nine participants to ensure data saturation (Morse, 2015).
- I also suggest that future studies ensure that there are more boy participants to increase the variety of perspectives, which should also address the inability to transfer findings to other adolescent boy populations as well as the limitations of skewed perceptions. Having more adolescent boy participants will further increase the chances of data saturation being achieved (Houghton et al., 2013).
- To address the limitation of changing experiences due to these adolescents maturing, I suggest future research makes use of a follow-up study, and uses the findings of this study as a comparison between adolescents' and young adults' experiences. An alternative to this is making sure that a follow up study is done within a certain time period to ensure that findings can still be verified (Ployhart & Vandenberg, 2018).
- Due to the study taking place in Leandra, general conclusions of managing drought may not necessarily be appropriate to other drought stricken areas (Merriam, 2009). Future research could compare the findings of managing drought in Leandra to that in another province to identify similarities and differences (for example, in Cape Town).

5.5.2 Recommendations for educational psychologists

Educational psychologists need to appreciate the resilience process of adolescent boys and understand that this process is moulded by their social ecology (Theron, 2013). Educational psychologists who work with boys challenged by drought will benefit from this study because it has identified which resilience resources adolescent boys in Leandra make use of in order to manage drought (individual skills, peers, family, God, police, army, and fire-fighters). This study also identifies which resources within the adolescent boys' social ecological system (individual, micro-, and exosystem) are available in order for adolescent boys to manage the negative impacts of drought. In other words:

- I recommend that educational psychologists should identify intrapersonal resources of the individual. They should identify individual skills (agency) and attitudes adolescents make use of in order to support their own resilience process. For example, based on my findings, adolescent boys distract themselves with creative activities such as writing songs and reading for fun (i.e., agency). Educational psychologists should use the findings of this research study to identify what resources adolescent boys draw on to leverage resilience in assisting adolescent boys in their resilience process.
- Simultaneously, educational psychologists should work systematically because SERT has been identified as crucial to the resilience process. Educational psychologists can use resources within the microsystem to leverage resilience. For example, these adolescent boys spoke to family and peers (caring others) as a means to support their resilience process because these people reduce adolescent boys' stress during times of drought. In other words, I recommend that educational psychologists accept that the resilience of adolescent boys is eco-systemically supported; that is, resilience is supported by various role players in the adolescent boys' system (Theron, 2013).
- I recommend that educational psychologists adopt an asset-based approach to developing solutions or strategies to adolescent adversities because this encourages positive adaption to managing drought.
- Originally, I started this research study with assumptions and my suburban experiences of water restrictions differ to that of how boys experience drought. As an educational psychologist in training who embarked on this research, I

recommend that educational psychologists avoid the influence of personal experiences because it may result in creating biased opinions with regards to which resources adolescent boys draw to leverage resilience.

5.6 CONCLUSION

As stated in Ungar (p. 1, 2011), “researchers have had the means to measure resilience at individual, family, and community levels”. I, as the researcher, related with the above quote because I was able to measure resilience at the same systemic levels with adolescent boys. As a result, the social ecologies role is evident in my study’s findings because the social and physical environments of adolescent boys play a vital role in positive adaptation during drought. Similarly, Masten (2014) explained that resilience is a complex process, specific to the context and culture of the individual. I was able to appreciate the context of drought because I went to Leandra, which is drought stricken, and I was cognisant of the cultural influences during my research. Resilience as strengths-based approach was reflected in my study because the adolescent boys explained adaptive mechanisms adopted as a means to promote resilience during drought.

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7. ADDENDA

7.1 ADDENDUM A

Excerpt Illustrating Open Coding Process

Date of open coding: 15/02/2017

Activity: Body-Mapping (Activity 3)

Participants: Adolescent boys

- Question: What does it mean for a young person to be OK when there is drought?
- What/who makes it possible for young people to be OK when there is drought?

Group 1, Activity 3 Body mapping , Leandra, 4 April 2017

229 F: I'm going to ask you a question then I just want you to say your name gain and ok, so

300 from what you have drawn here just explain to me what it means then what helps you stay 301 positive in your mind, heart and body when there's a drought.

302 P1: My name is Njabulo and I'm a boy. Eh, what I'm drawn here and what I've write here is

303 that you must stay positive, be true to yourself, staying negative is never a solution
304 cause staying positive helps you to get through whatever situation you are facing.

305 That will help you to stay healthy in your mind, your heart and your body.

306 Don't lose hope, losing hope is, is another thing that's never solution, losing hope is not

307 the good thing for your body 'cause I you lose hope your body will do so and then the

308 drought thing will start to attack you cause you don't have hope, but if you have hope

309 and you stay positive you will be able to overcome that situation.

310 Exercise, go to gym, going to gym will help your body stay healthy especially your

311 muscles and cells will always be able o regain and regain and reproduce even though 312 there not there no you don't have enough water in your body. Help each other, if 313 someone says to you, "I need your help, I don't have enough water, please give me some

314 water, give water to that person cause we need each other in order for us to overcome

315 difficult situations we are facing. So save water, saving water it means it means that
316 you'll be able, when a drought take place, you'll when a drought takes place, you'll be

317 able to have some water, cause you've saved water, you've known that maybe 318
sometimes drought may take place that what you have to do, thanks.

F: What can you do to save water?

320P1: Like don't wa... don't wa... don't waste water. Like... like bathing with uh five liter of,

321 of eh what can I say...

F: Not too much?

322P1: Yes, not too much water when you are bathing and not just use water in an unnecessary

323 way just us water responsibly eh.

F: And what do you do to stay positive?

325P1: What do I do to stay positive? There are many ways to stay positive, staying positive like

326 I'll make an example: staying positive in your mind will help you your mind will be able

327 to see that these things need me to stay positive, then your mind will send the message to

328 your body, then your body will be able to be positive then you will be able to overcome

329 the situation uh.

F: And do you think, uhm, what helps you will also help girls or is it different from boys and girls?

333P1: No what helps me will also help girls, there's nothing different, drought doesn't choose

334 whether you are a boy or you're a girl, it attacks everyone. It attacks human, it attack plants,

335 it attacks animals. It doesn't have these things of if you are a boy I will attack you.

336 must also a girl must do as I, as I'm doing cause we are all human, we live.

F: And do you think that boys and girls experience drought the same in their hearts, bodies and minds?

339P1: Yes, I think they are affect, they'll if there's a drought your heart will be affected, your

340 mind will be affected also your body will be affected by drought.

F: Thank you.

Line	Open-codes	Candidate themes
303	Being positive	Positive outlook
304-305	Being positive helps you stay healthy in your body, mind and heart	Recreational activities Informal pragmatic initiatives
306-309	Losing hope is not beneficial to anyone/ don't lose hope	
310	Exercising helps one stay healthy	
312-315	Helping others who are unable to do things for themselves	
315-316	Rationing water usage	
320	Don't waste water	
323-324	Use water sparingly	
326-330	Having a positive mind-set will assist in managing hardships	

7.2 ADDENDUM B

Protocol, Activity 3

This protocol will be used by the youth co-researchers and could be translated into the mother tongue of the elder whom the co-researcher will be interviewing:

How has drought changed communities in the Govan Mbeki municipality?

[Additional probing questions: can you give me an example? Can you tell me a story about one of these changes?]

How has your community coped with/solved these changes?

[Probing questions: Can you help me understand more by giving me an example? Were there other ways that the community coped? Can you tell me a story about that?]

What was the most effective thing your community did to cope with drought-related changes. Please draw this and briefly explain your drawing to the young person.

[Probing question: Please tell me what your drawing means?]

7.3 ADDENDUM C

1.1 THEMES RELATING TO WHAT BOYS DO TO SUPPORT THEIR RESILIENCE DURING TIMES OF DROUGHT

	Inclusion criteria	Exclusion criteria
Theme 1: Adolescent boys engage in sporting or creative activities	This theme includes boys' engaging in physical exercises such as running, playing basketball or soccer as well as creative activities such as reading as a means to distract the self	Excludes mandatory participation in school based sport teams and/or reading and writing for exam purposes
Theme 2: Adolescent boys speak to caring others	Providing support and encouragement by speaking to peers, friends or members in the community.	Excludes speaking to official governmental personnel or services. Excludes pragmatic parenting (i.e., EXPLAIN PP)
Theme 3: Boys pray to God and have faith in their religion	Includes praying with any family member or to God or ancestors	Excludes any mention of forced prayer (e.g., penance)

1.2 THEMES RELATING TO WHICH SOCIAL ECOLOGICAL RESOURCES SUPPORT BOYS' RESILIENCE WITHIN A CONTEXT OF DROUGHT

	Inclusion criteria	Exclusion criteria
Theme 1: Protective service providers boost the resilience of adolescent boys	This theme includes available services (police, fire-fighters and soldiers) as a means to protect and enhance the resilience of adolescent boys.	Excludes non-governmental service providers (NGO's) or community based initiatives.
Theme 2: Family and peers reduce adolescent boys' stress	This theme includes family members and peers who make adolescent boys feel peaceful by being present.	This excludes the presence of teachers

7.4 ADDENDUM D

Ethical clearance to be put in here

7.5 ADDENDUM E

Looking for volunteers

Are you:

- 15-24 years old,
- Living in the Secunda area, Mpumalanga, *and*
- OK speaking, writing and reading English?

Do you want to spend one Saturday per month (March to July 2017) being a researcher and helping other researchers learn about what helps young people in drought-affected communities to do OK in life?

If you answered yes to all of the above,
please ask the person who gave you this advert
for more information about the research project.

