Resilience to drought: Adolescents' perspective on what enables health and well-being

by

Gwyneth Nydia Vollebregt

Submitted in partial fulfilment of the requirements for the degree

MAGISTER EDUCATIONIS

in the Faculty of Education

at the

UNIVERSITY OF PRETORIA

MARCH 2018

Declaration

I declare that the dissertation/thesis, which I hereby submit for the degree MEd (Educational Psychology) at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

....

Gwyneth Vollebregt

29 March 2018

Ethical approval for my study

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Education

Ethics Committee
28 March 2017

Ms Gwyneth Vollebregt

Dear Ms Vollebregt

REFERENCE: EP 17/03/06 Theron 17-002

We received proof that you have met the conditions outlined. Your application is thus **approved,** and you may start with your fieldwork. The decision covers the entire research process, until completion of the study report, and not only the days that data will be collected.

The approval by the Ethics Committee is subject to the following conditions being met:
1. The research will be conducted as stipulated on the application form submitted to the Ethics Committee with the supporting documents.
2. Proof of how you adhered to the Department of Basic Education (DBE) policy for research must be submitted.
3. In the event that the research protocol changed for whatever reason the Ethics Committee must be notified thereof by submitting an amendment to the application (Section E), together with all the supporting documentation that will be used for data collection namely; questionnaires, interview schedules and observation schedules, for further approval before data can be collected. Non-compliance implies that the Committee's approval is null and void. The changes may include the following but are not limited to:
   - Change of investigator,
   - Research methods any other aspect therefore and,
   - Participants.

The Ethics Committee of the Faculty of Education does not accept any liability for research misconduct, of whatsoever nature, committed by the researcher(s) in the implementation of the approved protocol.

Upon completion of your research you will need to submit the following documentations to the Ethics Committee for your
Clearance Certificate:
   - Integrated Declaration Form (Form D08),
   - Initial Ethics Approval letter and,
   - Approval of Title.

Please quote the reference number **EP 17/03/06 Theron 17-002** in any communication with the Ethics Committee.

Best wishes

Prof Liesel Ebersöhn
Chair: Ethics Committee
Faculty of Education

Ethical approval for the greater project

Faculty of Education
Fakulteit Opvoedkunde
Lefapha la Thuto

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Ethics Committee
13 February 2017

Dear Prof L Theron

REFERENCE: UP 16/11/02

We received proof that you have met the conditions outlined. Your application is thus approved, and you may **continue with your fieldwork**. Should any changes to the study occur after approval was given, it is your responsibility to notify the Ethics Committee immediately.

Please note that this is **not a clearance certificate**. Upon completion of your research, you need to submit the following documentation to the Ethics Committee:

- Integrated Declaration Form (Form D08),
- Initial Ethics Approval letter and,
- Approval of Title.

Please note:

- *Any amendments to this approved protocol need to be submitted to the Ethics Committee for review prior to data collection. Non-compliance implies that the Committee's approval is null and void.*
- *Final data collection protocols and supporting evidence (e.g.: questionnaires, interview schedules, observation schedules) have to be submitted to the Ethics Committee before they are used for data collection.*
- *Should your research be conducted in schools, please note that you have to submit proof of how you adhered to the Department of Basic Education (DBE) policy for research.*
- *Please note that you need to keep to the protocol you were granted approval on should your research project be amended, you need to submit the amendments for review.*
- *The Ethics Committee of the Faculty of Education does not accept any liability for research misconduct, of whatsoever nature, committed by the researcher(s) in the implementation of the approved protocol.*
- *On receipt of the above-mentioned documents you will be issued a clearance certificate. Please quote the reference number: UP 16/11/02 in any communication with the Ethics Committee.*

Best wishes

Prof Liesel Ebersöhn
Chair: Ethics Committee
Faculty of Education

Abstract

The purpose of this study is to explore the intrapersonal and interpersonal health- and well-being-enabling resources that adolescents regard as important to both their health and well-being when faced with adversity, specifically in the context of drought. Limited information is presently available about what enables resilience amongst adolescents when faced with the challenges of drought. Resilience is a process that, with the occurrence of risk, draws on interpersonal and intrapersonal enabling resources to facilitate/sustain positive adaption. To fulfil this purpose, I conducted a qualitative study. The reason for this was to gain a deeper understanding of resilience to drought, through the experiences of the adolescents living in Leandra, Mpumalanga, South Africa. My study of limited scope was part of a larger study entitled: Patterns of resilience among young people in a community affected by drought: Historical and contextual perspectives. Forty-three participants were recruited to the greater study by purposive sampling. I focused on adolescent participants ($n = 25$, including boys and girls). The data generation was through visual arts-based methods of body mapping and õsand-trayö activity. Data analysis was done using inductive content analysis following the steps of thematic analysis by Braun and Clarke (2006). Two themes emerged. The first focused on intrapersonal resources: a resilience-supporting way of life, adopting a non-drought focus and managing drought-related challenges, and valuing peer and community relationships. The second theme focused on interpersonal resources: supportive parenting, spiritual support and the community managing drought related challenges. An educational psychologist is able to draw on the emerged intrapersonal and interpersonal resources found in my study to tentatively create context-specific insights, in order to understand and promote resilience in adolescents experiencing adversity, specifically drought.

Key Terms:

Adolescents, drought, educational psychology, intrapersonal factors, interpersonal factors, resilience, well-being.

Language Editor

<u>DECLARATION</u>

I herewith declare that I,

Isabel M Claassen (APSTrans (SATI)),

full-time freelance translator, editor and language consultant

of
1367 Lawson Avenue, Waverley, Pretoria
(cell 082 701 7922)

and
accredited member (No. 1000583) of the South African Translators' Institute (SATI)

completed the *language editing** of the mini-dissertation entitled

Resilience to drought: Adolescents' perspective on what enables health and well-being

which had been submitted to me by

Gwyneth Vollebregt

in partial fulfilment of the requirements for the degree

Master's in Educational Psychology

University of Pretoria

gwynvollebregt@yahoo.com

<u>Date completed</u>: 09-03-2018

*Please note that no responsibility can be taken for the veracity of statements or arguments in the document concerned or for changes made subsequent to the completion of language editing. Also remember that <u>content editing is not part of a language editor's task and is in fact unethical.</u>

Abbreviations

SERT	**Social ecology of resilience theory**
NGO	**Non-governmental organisations**

Table of Contents

List of Figures

List of tables

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION AND RATIONALE OF THE STUDY

Hardship and adversity, caused by natural disasters such as drought and poverty, occur on a global scale and are not just restricted to the individual and immediate environments. This phenomenon has created a growing interest in resilience (Masten, 2015), which is a dynamic interaction between risk factors and protective processes that support positive outcomes such as health and well-being. These risks and protective processes operate differently at various periods in an individualøs development (Mosavel, Ahmed, Ports & Simon, 2015). What researchers do know is that the poverty, deprivation and violence that are characteristic of low-income communities and urbanisation present challenges to adolescent health and well-being (Brooks-Gunn & Duncan, 1997; Masten, 2011). There has been abundant research on resilience in adolescents in general; however, I believe I identified a gap. To date, no South African study has provided a deep understanding of the exact resources (specific to health and well-being) that enable the resilience of adolescents who are challenged by drought specifically.

Recent resilience research considers the individualøs sociocultural context as important, because the context frames his/her experience of adverse events (Eggerman & Panter-Brick, 2010). The challenge with what we currently know is that minimal research has been conducted on resilience in the context of drought. The area around Leandra, Mpumalanga, which has been declared a drought disaster zone, is an example of an area where inhabitants were affected by drought (Evans, 2015). My study, which is a sub-study of a wider Leandra-based study entitled *Patterns of resilience among young people in a community affected by drought: Historical and contextual perspectives research project* (a GCRF-funded project), addresses the above-mentioned gap.

This chapter serves to introduce my sub-study, which took place as part of the larger GRCF-funded project in Leandra, Mpumalanga, South Africa under the guidance of a multidisciplinary team, including university researchers from the UK, Canada and South Africa. I worked under the supervision of Professor Linda Theron, who is the South African leader on this research project. The research participants consisted of young adolescent females and males who live in the Leandra area.

I have a personal interest in resilience in adolescents due to my prior experience in places of safety. Volunteering at places of safety awakened a specific interest in resilience-enabling resources that adolescents identify as being most important to their health and well-being. My conviction that knowledge of resilience is important to educational psychology is discussed further in my problem statement below (1.2 Problem Statement).

1.2 PROBLEM STATEMENT

There is only limited knowledge available about what enables resilience among adolescents when faced with the challenges of drought. Resilience is a process that, with the occurrence of risk, draws on both interpersonal (e.g. supportive family relationships, peer relationships and community support) and intrapersonal (e.g. self-efficacy, emotional regulation and problem-solving abilities) resources to enable or sustain positive outcomes such as health and well-being (Masten, 2011). It is however unclear which of these intrapersonal and interpersonal resources matter for resilience in contexts of drought.

Drought is an increasingly common and threatening phenomenon in many parts of South Africa (Araujo, Abiodun, & Crespo, 2016). Educational psychology literature states that educational psychologists play a crucial role in the positive adjustment of individuals whose development/outcomes are threatened by risk (Theron & Donald, 2013). As drought is an increasing threat in South Africa, there is a growing need for educational psychologists to support adolescents whose health and well-being is challenged by drought. Although there is a large amount of literature that explains resilience, the field of human resilience to drought has largely been neglected. This paucity creates a problem for educational psychologists as they do not deeply understand the context of drought to support those individuals experiencing it. Because resilience is sensitive to context (Ungar, 2011), educational psychologists need context-specific insights to understand and promote resilience in that specific context. Such insights need to be from an ecosystemic perspective and respect the joint responsibility of family, community and school to improve the lives of individuals (Pillay, 2012). Educational psychologists should use such context-specific insights to champion resilience and create responsive and contextually relevant interventions. Support by educational psychologists has the ability to develop an individual's capacity for resilience (Hlatshwayo & Vally, 2014).

1.3 PURPOSE OF THE STUDY

The purpose of this qualitative study was to explore the intrapersonal and interpersonal resources that male and female adolescents who are challenged by drought identify as

important to their health and well-being and to **theorise** how this information could inform educational psychologistsø understanding of resilience in a drought-challenged context.

1.4 RESEARCH QUESTIONS

1.4.1 Primary research question

What resources do adolescents in a drought-challenged context identify as important to their health and well-being?

1.4.2 Sub-questions

1) What are the intrapersonal resources that support the health and well-being of adolescents in the drought-challenged context of Leandra, Mpumalanga?

2) What are the interpersonal resources that support the health and well-being of adolescents in the drought-challenged context of Leandra, Mpumalanga?

3) How might the answers to sub-questions 1 and 2 inform educational psychologistsø understanding of resilience in a drought-challenged context?

1.5 THEORETICAL FRAMEWORK: THE SOCIAL ECOLOGY OF RESILIENCE THEORY

The theoretical framework that I chose for my study was Ungarøs (2011) social ecology of resilience theory (SERT). SERT defines resilience as an interactive process of positive adjustment to adversity (Rutter, 2012). The interaction is between the individual and the social ecology (i.e. families, schools, community support and social policies (Ungar, 2016). In other words, resilience is predicted not only by the individualsø capacity to positively adapt when challenges (such as drought) threaten health and well-being, but also by the capacity of the social ecology to provide supports that are culturally and contextually relevant (Ungar, 2015). SERT is based on four principles: decentrality; complexity; atypicality; and cultural relativity (Ungar, 2011). These four principles guided my study.

Firstly, in decentralising the adolescent, I focused equally on the environment and the individual from which the intrapersonal and interpersonal resources that enble health and well-being may stem. The second principle, complexity, constantly reminded me that all I observed and investigated during the study was context-specific. This implied that both the risks and the resilience-enabling resources could change with the adolescents, as they would mature through different developmental stages or encounter different risks that may be challenging to them.

Being an educational psychologist, the third principle of atypicality was important to me. I naturally predicted certain findings but soon learned that resilience is certainly atypical. My findings could well be different from the mainstream perspectives on what enables health and well-being. I engaged with and investigated resources that were beneficial to the adolescents with whom I worked, and remembered that resilience is culturally relative ó which improved my chances of achieving atypicality. Linking this to an educational psychology approach allowed me to see whether the resources within the community were suitable and culturally relevant enough to support positive development. As an educational psychologist , I was aware that resilience is complex, therefore I did not disregard the interpersonal factors and SERT accounts for this.

My choice of conceptual framework was influenced by my invitation to be included in the research project *Patterns of resilience among young people in a community affected by drought: Historical and contextual perspectives*, in which the theoretical framework used was also SERT.

1.6   CONCEPT CLARIFICATION
1.6.1   Resilience

For the purposes of my study I followed Masten, one of the leading researchers in resilience who defined it as the õcapacity of a dynamic system to adapt successfully to disturbances that threaten system function, viability, or developmentö (Masten, 2014, p. 1). This capacity to adapt can be seen as a process that supports ÷doing wellø in life when life circumstances predict the opposite (Malindi & Theron, 2011). In my study, resilience is defined as a process that supports the individual adolescent to positively adapt to an adverse environment (in this study, the adverse environment is the experience of drought). Doing well refers to health and well-being which are two positive outcomes associated with resilience (Masten, 2015).

1.6.2   Risk

õRisk is a measure of the probability and severity of adverse effectsö (Haimes, 2009, p. 1647). Therefore, in relation to the above, risk is a threat that can make an individual or situation vulnerable to a negative outcome or result. In terms of my study, the central risk is drought (see 1.6.4).

1.6.3 Protective resources

Resources are agencies (interventions) and opportunities on which adolescents are able to draw to help them navigate challenges that they may face (Madhavan & Crowell, 2014). In my study, ‑resourcesø will be confined to resources that enable health and well-being. These resources are any that enhance the physical and mental well-being of individuals.

1.6.4 Drought

Drought is an environmental disaster in which both surface and groundwater resources are reduced, leading to a reduced water supply. The situation can last for months or years (Mishra & Singh, 2010). The meaning of the term ‑reducedøis not absolute, because according to Lloyd-Hughes (2014), drought is a shortage of water relative to normal conditions. The area of Leandra, Mpumalanga, which was investigated in this study, was classed as a drought-stricken area because there had been a prolonged absence of rain (Evans, 2015). During drought, the resulting water shortage and dryness has a ripple effect on the availability of vital resources for the people living in that area (Hart, Berry & Tonna, 2011). Drought is associated with various negative consequences, including poor access to basic amenities such as clothing and food; poor access to resources such as basic education and health care (Keim, 2008); vulnerability to mental health challenges (Hart et al., 2011); economic vulnerabilities resulting in unemployment (Rukema & Simelane, 2013) and the disintegration of communities (Alston & Kent, 2004). All of the aforementioned risks have the potential to change health and well-being.

1.6.5 Adolescence

Louw and Louw (2007) explain adolescence as the transition period between puberty and adulthood and as a stage of development. According to the World Health Organisation (WHO), adolescence is applicable to young people in the age range 10 to 19 years old (WHO, 2017). In terms of my sub-study, ‑adolescentsøare female and male individuals aged between 15 and 18, as this is the sample that was included in the greater GRCF project.

1.7 ASSUMPTIONS

One of the assumptions that I made in my study was that although adolescents experience hardship, they are still able to be resilient. In an area with limited resources, however, there may be limited health-specific resources to enable resilience. Adolescents living in the study area of Leandra, Mpumalanga, might therefore have to draw on multiple resources ó whether

extrinsic or intrinsic ó to enable their resilience. Resilient individuals in the study area might also be better at positively adapting to adversity, as they were able to use the resources within their community and cultural context to improve their response to hardship. I furthermore assumed that in Leandra, Mpumalanga a deep cultural influence may run like a thread throughout the resilience process.

1.8   METHODOLOGY

A summary of the methodology that I applied in this study follows below (a detailed discussion appears in Chapter 3). First, however, I will provide the context of the research site in this project. Leandra is a small rural town in the Mpumalanga province of South Africa. It is also an agricultural town with a population of 2023 people. Leandra falls under the Govan Mbeki municipality, which reported an unemployment rate of 26,2% in 2011. Only 56.5% of the inhabitants of the Govan Mbeki local municipality have piped water inside their dwellings. The above information on Govan Mbeki local municipality was recorded by Statistics South Africa (2011; 2017). When we visited the research site, I was struck by the vast contrast from my immediate environment to Leandra, Mpumalanga. As I arrived in Leandra, I stunned by the number of houses that were crammed into an area showing a high population density. The houses were made of materials that did not look sustainable and the size of the houses were small with many looking dilapidated. There was a lack of sustainable infrastructure with clear evidence of poor sanitation. As I was the driver, I experienced a lack of sustainable roads and an organic environment with livestock having to be coaxed off the roads so that vehicles could pass.

Figure 1.1: Photo showing materials used for housing

Figure 1.2: Photo of poor sanitation

1.8.1   Epistemological paradigm: Social constructivism

The epistemological paradigm used is social constructivism. The reasons for choosing social constructivism as the epistemological paradigm, as well as the advantages, disadvantages and personal experiences related to this approach are discussed in Chapter 3 (3.4.1).

1.8.2 Research design: Qualitative research

A qualitative research approach was applied in this study. Within the broad qualitative approach, all research interactions took place in the participantsø natural setting and the data collection was not fixed, but emergent (Creswell, 2014). I also employed a phenomenological design that was centred on acquiring a rich knowledge and wide understanding of a phenomenon, based on the social experiences of individuals (Creswell, 2014; Lin, 2013). In my study, the applicable phenomenon was resilience to drought. The reason for choosing this research design, as well as its advantages and disadvantages are discussed in Chapter 3 (3.3.2).

1.8.3 Participants

I did not directly select the participants, as this was done by the greater GRCF Project. The project made use of purposive sampling to select participants within a certain population and according to certain criteria that contains the most information about the content being researched (Guarte & Barrios, 2006). The reasons for using purposive sampling are explained in detail in Chapter 3 (3.4.2). In total, 50 participants were recruited of whom 43 participated, and 25 of these were adolescents (9 boys; 16 girls).

1.8.4 Data generation

In the greater project, all of the methods of data collection that were used, were visual methods. Visual methods invite participants to produce artefacts in response to the phenomenon being researched (Guillemin & Drew, 2010). These artefacts were produced using materials such as clay, drawing utensils and paper. These visual methods increased the participation of participants and ensured their position as knowledge producers, making them aware of their power. õVisual, arts-based methods have the potential to minimise the power imbalance between the researcher and the participant, thereby producing more culturally and context-sensitive informationö (De Jager, Tewson, Ludlow, & Boydell, 2016, p. 2). Through these visual methods, we (i.e. all the researchers participating in the greater project) hopefully assisted participants to become aware of and reflect on the skills and assets around and within them, that managed to enable their resilience. All data generation took place in groups of six or eight, and each activity lasted for one hour. The greater project included six visual activities, but for the purpose of this mini-dissertation, I only described the visual methods that were relevant to my research (see 3.4.3 in Chapter 3).

All the data generation was facilitated by myself and my fellow Masterøs degree students who collaborated on the greater GRCF project. We documented interviews about the visual artefacts

through the use of voice recorders and observation notes made by Honours students who were co-facilitators. We received training on what to observe and might be noteworthy for this project, which ensured that the observations and the quality of data generated were relevant and effective. This training took place on 3 April 2017 at the University of Pretoria's Groenkloof campus.

1.8.5 Data analysis and interpretation

I used inductive content analysis to analyse the data. Following the technique stated by Fereday and Muir-Cochrane (2016), this means that the themes and answers to my proposed research questions emerged from the data in a bottom-up approach. In particular, I conducted a thematic analysis, in other words, information was coded or analysed to find and report on differing themes or patterns, and these themes were emergent and not fixed. Thematic analysis is a way to efficiently organise a rich set of data (Braun & Clarke, 2006). The reasons for using thematic analysis as well as the advantages and disadvantages are explained in detail in Chapter 3 (3.4.4).

1.9 QUALITY CRITERIA

According to Cope (2014), trustworthiness is established through a variety of criteria, which include credibility, dependability, transferability, confirmability and authenticity. These criteria will be discussed in detail in Chapter 3 (3.5).

1.10 ETHICAL CONSIDERATIONS

As will be explained in Chapter 3 (3.6), ethical clearance was obtained for the greater GRCF Project from the University of Pretoria (reference number UP 16/11/02). I also obtained ethical clearance for my sub-study (EP 17/03/06 Theron 17-002) in conjunction with the greater project. My main concern regarding ethical considerations dealt with my interactions with the participants and the interpretation of the data.

1.11 CONCLUSION

Chapter 1 served an introduction to my research. It explained that I chose a phenomenological research design to address the gap I identified in the current resilience literature. In the following chapter I will discuss what is known about the risks and resources associated with the phenomenon that I chose, namely adolescent resilience in the face of adversity, namely drought.

CHAPTER 2

LITERTURE REVIEW

2.1   INTRODUCTION

In this chapter I intend to discuss what is currently known about resilience-enabling resources that support adolescents to function well in a context of drought. My focus is therefore threefold: 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 mostly reflect South African literature, except for the portions relating to drought. The reason for this is that there exists an abundance of literature regarding resilience, both internationally and within the African context. By focusing mostly on South African literature, I hope to increase the credibility and relevance of this chapter and focus on resilience in an African context. By doing this, I hope to enforce the idea that resilience is contextually and culturally relevant (Panter-Brick & Leckman, 2013). With regard to drought and resilience, I will take a worldwide view, because the literature on drought in the African context is limited. This gap is quite ironic, given how Africa (also South Africa) is increasingly challenged by drought (Araujo et al., 2016).

In order for resilience to be evident, there has to be risk/s and positive outcomes (such as health and well-being), or the potential to positively adapt to these risks (Mampane, 2014). Within the context of the Social Ecology of Resilience Theory (SERT) (Ungar, 2011) that informs my study, resilience is a bi-directional (i.e. person ← →context) process that supports positive adjustment. In other words, given that resilience is complex and bi-directional, the systems beyond the individual cannot be disregarded. Each system potentially has risks as well as resilience-enabling resources. Figure 2.1 further explains the organisation of Chapter 2 and shows that it will focus on the systems that are pertinent to adolescents, namely the self, family, school and larger community.
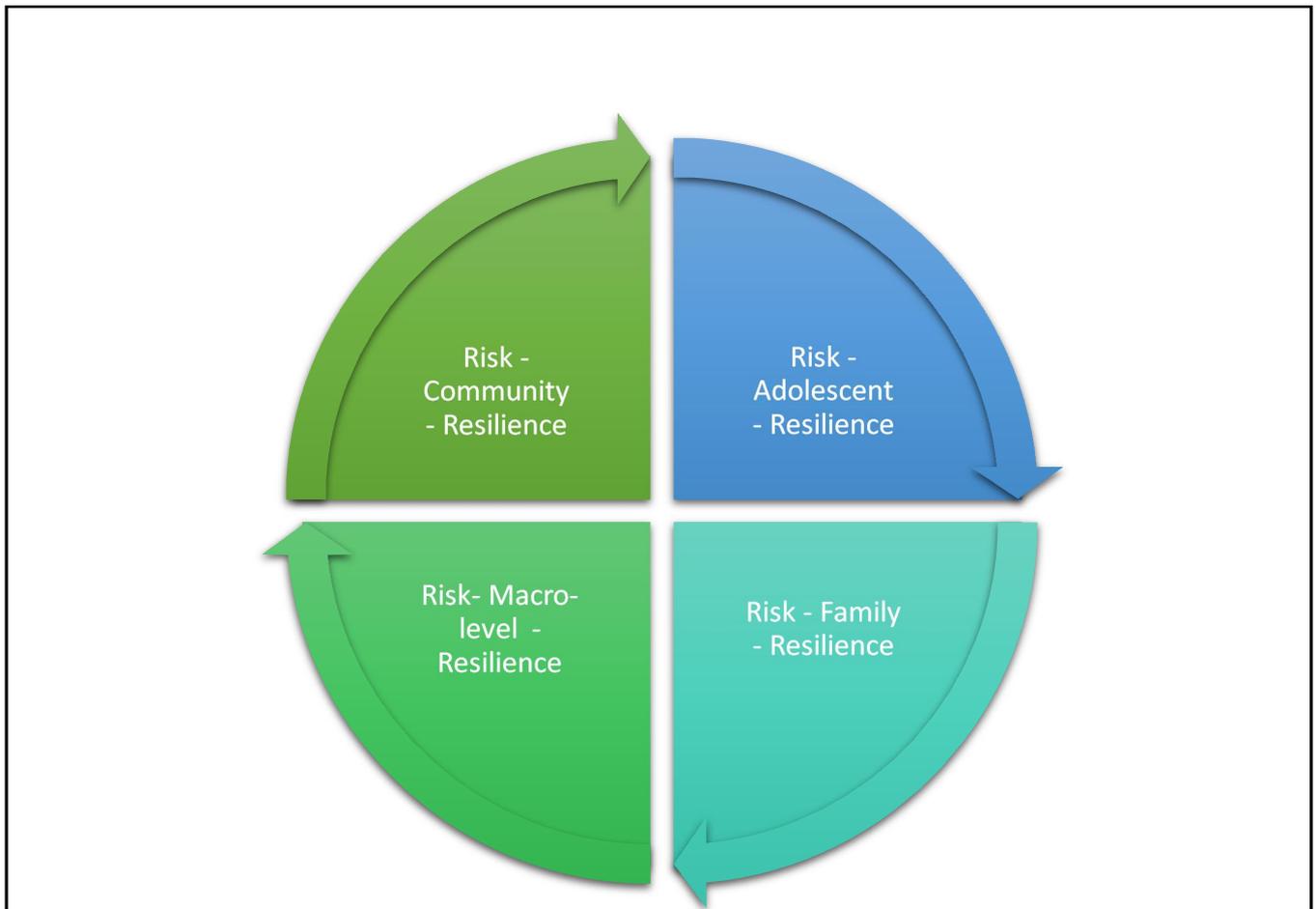
Figure 2.1 Figure illustrating the organisation of Chapter 2

In Figure 2.1, the adolescent has deliberately been taken out of the centre, as this chapter will be organised according to Ungarøs SERT (2011), the focus will be on the interaction between the environment and the adolescent. This stance will ensure that resilience is viewed as drawing on both intrapersonal and interpersonal resources.

As Shown in Figure 2.1 my literature chapter includes risks and resilience at every level, even though my study of limited scope focuses on adolescent resilience in a context of drought. I briefly review the risks so that my review of literature does not come across as one-sided. The real risk underpinning my study of limited scope is drought, but I acknowledge that the risks of drought can be worsened by additional personal, family, community and macro risks.

2.2   The individual adolescent

The adolescent dimension reflects personal (or internal) resilience enablers or constraints. These include traits, characteristics, skills and temperaments of an adolescent that might put him/her at risk or facilitate resilience (Theron & Theron, 2010). According to Kumpfer (1999),

there are five internal resilience factors, namely motivational characteristics (e.g. purpose in life, perseverance and motivation), cognitive competencies (e.g. academic skills), emotional stability (e.g. humour) behavioural/social skills (e.g. problem-solving skills) and physical well-being (e.g. good health). These dimensions recur in the discussion below dealing with the individual adolescent.

2.2.1 Risks associated with the individual adolescent

Many adolescents are vulnerable to risk behaviour, for instance substance use and abuse, at-risk sexual behaviour and intrapersonal characteristics such as impulsivity or poor self-regulation (Levin, Kirby & Currie, 2012). An example of at-risk sexual behaviour is noted in research conducted by Kalina, Geckova, Klein, Jarcuska, Orosova, Van Dijk and Reijneveld, (2013) on the relationship between parental processes and at-risk sexual behaviour among adolescents. It is a common occurrence for adolescents to engage in sexual behaviour at this stage of their lives. The need to be socially accepted, combined with a lack of knowledge on the effects of substance abuse, increases the adolescentøs risk of falling prey to detrimental sexual behaviour.

Similarly, a study by Morojele, Brook and Kachieng'a (2006), which focuses on the perceptions of adolescents who experiment with substance abuse, states that adolescents are not cognisant of the effects of drugs but enter a cycle where substances are consumed. This further affects their logic and cognition about substance use.

Cognitive incompetence, such as poor planning skills or poor academic achievement is affected by self-efficacy. Having a low sense of self-efficacy can affect adolescentsø career choice as well as academic achievement (Buthelezi, Alexander & Seabi, 2009). Louw, Peltzer and Chirinda (2012) conducted a study on the reduction of self-efficacy in youths due to HIV/Aids and found that adolescents who had low self-efficacy were unable to set goals for themselves and/or plan their future.

The developmental changes (i.e. cognitive, affective and psychosocial) that adolescents go through may also pose a risk (Erikson, 1977; Piaget, 1972). Biological vulnerabilities may adversely affect the development of an adolescent (Van Rensburg, Theron & Rothmann, 2015) and changing hormones and the maturation of their cognition, physical autonomy and emotional stability may be compromised (Kia-Keating, Dowdy, Morgan & Noam, 2011). According to Hay and Ashman (2010), biological changes may well have a negative effect on the emotional stability of an adolescent and they are even likely to lead to suicide. Research by

Thupayagale-Tshweneagae, Mgutshini, and Moleki (2012) with adolescent girls orphaned by Aids found that, in South Africa, the transition out of adolescence for these girls can put them at risk of emotional challenges if the transition is not smooth and supported by a social system.

2.2.1.1 Drought-related risks facing the individual adolescent

Social vulnerability can occur in the following areas: The adolescent may experience psychosocial challenges where a decreased quality of life is sustained. Major life changes may have to take place, such as having to make food cuts where the freedom to purchase and consume what is wanted now becomes what is needed (Keim, 2008). Psychological poverty might occur on an adolescent level and the adversity associated with drought may cause the adolescent to withdraw from the community. Psychological poverty is also characterised by a developing lack of trust by the adolescent, aimed towards various services and resources, for example those rendered by the government (Alston & Kent, 2004).

Prolonged drought can have an adverse effect on the mental health of an adolescent. As a result, the adolescent who experiences mental health problems, has fewer personal resources to draw on (Hart et al., 2011). Mental health challenges may again lead to increased emotional difficulties, which were reported by Dean and Stain (2007) as being experienced by adolescents during the adversity of drought. This makes it challenging for them to adapt positively in society (Hart et al., 2011).

2.2.2 Resilience enablers of the individual adolescent

In general, African literature reports personal traits, characteristics, personal beliefs and skills as being resilience-enabling (Theron & Theron, 2010). In this section, I focus on how these factors protect the adolescent against adversity. Adolescent qualities of contentment or being satisfied with the outcome obtained can be expected to have a ripple effect on other areas of the adolescentøs life (Theron & Theron, 2010). According to Kumpfer (1999), the internal factors of emotional stability and behavioural skills can be seen as predictive factors that enable resilience. This can also be seen in a study by Hills, Meyer-Weitz and Oppong Asante (2016) among street youth in Durban, South Africa, as well as in the research conducted by Ebersöhn and Bouwer (2013) among adolescents in families of divorce. Adolescents who can stand up for themselves in times of confrontation and are able to control their emotions in stressful situations, have the characteristics needed to enable resilience (Hills et al., 2016; Ebersöhn & Bouwer, 2013). Although opposite, the dispositional characteristic of having an ÷easyø temperament or attitude is equally as much a protective factor against adversity among

adolescents in the South African context. Such an adolescent is able to adapt to a negative situation more easily (Theron & Theron, 2010; Hills et al., 2016).

Humour has been seen to strengthen adolescents and support resilience. Humour acts as a way to distract the adolescent from stressors and move his/her cognition away from worrying or being angry about the adversity (Malindi & Theron, 2010; Kruger, Beer & Du Plessis, 2016) In a study by Heunis, Pienaar and Van Rensburg, (2011) on resilience in pre-adolescent Aids orphans in Lebone Land, South Africa, it was noted that humour was used to give the pre-adolescents a sense of hope. Humour strengthened the supportive relationships they had with others.

Resilience research has revealed that agency has been seen as a vital resource to enable resilience (Ebersöhn, 2013; Lethale & Pillay, 2013; Malindi & Theron, 2010). Adolescents who are able to take action against the hardships that they face, are able to adapt positively. Not all forms of agency are seen as socially acceptable. Some are atypical or different from what mainstream societies would expect (Ungar, 2011). Atypical forms of agency are however still practised, often to fulfil basic needs, such as begging out of extreme hunger. This was noted, for example, in research conducted by Malindi and Theron (2010) on hidden (i.e. atypical) resilience with 20 street youths from the Free State and Gauteng, South Africa.

The adolescent characteristic of being optimistic through many risks and adversities, has been seen as another personal resilience enabler (Collishaw, Gardner, Aber & Cluver, 2015; Ebersöhn, 2013). For example, in a study by Mohangi, Ebersöhn and Eloff (2014) on intrapersonal coping strategies of children living in institutions, it was reported that a sense of optimism, based on the belief system that children internalised, increased their levels of well-being. Similarly, a study with four Afrikaans-speaking adolescents who rebuilt their lives after experiencing divorce in their family showed that adolescents successfully drew on personal strengths and assets (including positive dispositions and effective communication skills) to support their process of resilience (Ebersöhn & Bouwer, 2013). These adolescents were also observed as wanting to develop greater independence, which can be related to self-determination. Self-determination includes independence and self-discipline, and it is a valuable example of an adolescent protective factor against adversity. Self-determined adolescents are able to rely on themselves to put agency into play. This is according to Malindi and Machenjedze (2012) who examined the role of school engagement among male street youths in South Africa and how resilient youth were determined to be engaged and succeed at

school. Future orientation, which is also seen as a resilience enabler in many studies in the South African resilience literature, includes positivity towards the future as well has having aspirations (goals) for the future (Ebersöhn et al., 2015; Lethale & Pillay, 2013; Malindi & Machenjedze, 2012). A study by Collishaw et al. (2013) on predictors of the mental health resilience of children who had lost their parents to Aids in urban South Africa found that being optimistic about what the future may hold and planning for the future constituted a huge resilience enabler for these children.

Respect for individuality, where adolescents are able to find their identity within their social systems, also results in adolescents displaying more resilience (Wild, Flisher & Robertson, 2011). In South Africa, a culturally based development of identity, through exchanges with family members or elders, is seen as bolstering young people and their ability to manage adversity (Cook & White, 2008). It is furthermore important to remember that what is considered to support resilience in one adolescent may not be supportive for another (Phasha, 2010).

Altruism has been seen as another resilience enabler among adolescents. The importance of being helpful or engaging in altruistic acts to enable resilience has been reported on in South African resilience literature (Ogina, 2012; Theron et al., 2017). In these studies, the altruistic actions were focused on people who had less resources. A study by Mosavel et al. (2015) to examine young people and their resilience in South African communities stated that female participants reported that helping others enabled their resilience and assisted the community they are in. In addition, male participants stated that altruistic actions were more focused on attaining future careers, so that it enabled them to be helpful and assist the community in the long run.

2.2.2.2 Drought-specific personal resilience enablers

Having a sense of agency is a resource that can be applied in a drought context specifically. A resourceful adolescent who uses his/her own skills and strengths to adapt by creating new resources and being aware of what needs to be done, will enable resilience in a drought context (Logan & Ranzijn, n.d.). In their study on the emotional well-being of an adolescent during times of drought in New South Wales (Australia), Dean and Stain (2007) reported many intrapersonal enablers that are similar to the enablers reported in 2.2.2. In addition to agency these enablers also included self-determination, belief in the own ability, and having a sense of humour.

Human capital, which is also seen as a resilience enabler in the presence of drought, includes personal assests such as health, education and skills. If adolescents are able to draw on these assets, their willingness and ability to positively adapt to the adversity increase. This finding was demonstrated by Vetter (2009) who conducted a drought-focused study on arid and semi-arid rangelands in South Africa, and who noted the effects of drought in rural areas on a socio-ecological level.

2.3 The family system

A supportive social ecology is instrumental in championing resilience among adolescents (Theron & Hall, 2016). In South African studies of resilience, emphasis is placed on the self, but there is even greater emphasis on collectiveness (Theron, 2013). Collectivist tendencies include the joint accessing, mobilising, networking and nurturing of sustained resources. These resources are present through systemic relationships (Ebersöhn, 2013), and the first and most important relational system in the African social ecology is family. Since families in South Africa are not headed by a parent (Lethale & Pillay, 2013), the emphasis is on extended family support systems that form and provide support for adolescents and enable their resilience (Theron, 2013). In a study by Theron (2016a) in which she explored black youth and a culturally and contextually sensitive understanding of resilience, mothers, grandmothers, sisters and aunts were seen to play an important role in the resilience processes of young people. In many areas in South Africa, ubuntu encapsulates the above, where family is referred to as ‗family community‗and the extended family invests in the lives of the children (Mkhize, 2006). This investment is a vital resource to resilience among adolescents (Theron & Phasha, 2015).

2.3.1 Risks related to the family

Family behaviours such as violence, abuse and conflict can place the adolescent at risk within the family system. In research conducted by Meinck, Cluver, Boyes and Ndhlovu (2015) among young victims of physical and emotional abuse in South Africa, it was found that conflict and violence in the family unit are likely predecessors of abuse within the family, mainly towards the children.

An implied risk is that families who are unable to utilise effective communication skills makes it more challenging for the adolescent to adjust positively to adversity. This can be seen in research conducted by Ebersöhn and Bouwer (2013; 2015) with middle adolescents in an exploratory study on resilience in reconstituted families following divorce. In their study, the

biological parents provided functional communication, which was seen as a resilience enabler within the family.

Specific negative life events such as death of a parent due to HIV/Aids or exposure to HIV/Aids introduce a risk factor (Van Rensburg et al., 2015). The risk of HIV/Aids to family functioning and the risk to adolescents in these families are noted in research by Loots, Ebersöhn, Ferreira and Eloff (2012); Wild et al. (2011), as well as Bhana et al. (2016). The risks include adolescent-headed households, impoverished households as basic needs are not provided, as well as mental health challenges that accompany an HIV/Aids status.

According to Lethale and Pillay, (2013), the rise in deaths due to Aids is resulting in more adolescent-headed households where the oldest child often has to take on parental responsibilities, for example, family management. This contributes to the adolescent having poor emotional health, as well as poor physical health due to the responsibilities and impoverishment. This impoverishment refers to malnutrition, limited access to health care services and poor living conditions (Röhrs, Berry, Lake & Shung-King, 2016). Bhana et al. (2016) report that adolescents who are exposed to HIV/Aids or infected by HIV have mental health challenges that could in turn affect the family unit for which they are responsible by increasing the life stressors.

In families challenged by structural disadvantage, risks can also take the form of compound sociodemographic risks (Van Rensburg et al., 2015). An example of this may be exposure to poverty, which can cause malnutrition for an adolescent and their family. The risk of malnutrition would then be compounded or exacerbated by adolescents dropping out of school to provide food for their families and not furthering their education because their family is now at risk (Theron, 2016; Theron & Pasha, 2015).

2.3.1.1 Drought-specific risks for the family

General family risk increases in the presence of drought. On a familial level, the initial phase of adversity (drought) can be dealt with; but as the effects of drought are prolonged, a number of long-term effects are observed, namely hopelessness, desperation and high levels of distress (Carnie, Berry, Blinkhorn & Hart, 2011). Although there may be immediate relief from drought by means of heavy rainfall, the socio-economic effects of drought may be long term and, in some cases, irreversible (Vetter, 2009).

Drought can cause families to disintegrate. Family members may have to separate from their families and go to work in non drought-affected areas (predominately urban) areas to earn an income for their family. This action may influence the cohesion and collectiveness of the family, which is greatly relied on to face adversity (Rukema & Simelane, 2013). There is also evidence of food insecurity as crops and food resources become scarce, thus making it difficult for families to maintain a healthy standard of living. Food insecurity may also cause illnesses due to malnutrition and poverty (Keim, 2008).

2.3.2 Family-based resources

Family members have the potential to scaffold (support and guide) the process of resilience by ensuring that the partnerships formed with each other are protective and supportive (Theron, 2013). A supportive family is a dominant resilience enabler (Masten, 2018). Family members who are surrounded by consistent care, nurturance and supervision do not feel disengaged from other family members (Afifi & MacMillan, 2011; Bhana et al., 2016; Ebersöhn, Nel & Loots, 2017). In my experience supportive families have aided my resilience to adversity. In a study by Ebersöhn and Bouwer (2013) with adolescents in families reconstructing after the divorce of their parents, it was specified that supportive parenting (specifically referring to biological parents) strengthened resilience for these adolescents.

In a situation where caregivers fulfil their role and provide for the basic needs of themselves as well as their children, the family unit is guarded against adversity (Ebersöhn et al., 2017). An example in point is a study conducted by Collishaw et al. (2015) on predictors of mental health. Adolescents who had been orphaned by HIV/Aids stated that food security was a resilience enabler in family households.

Family organisational patterns that include social skills and flexible family roles/behaviours are resilience enablers. According to Vermeulen and Greeff (2015), acknowledging organisational patterns also allows the family unit to function well by mutually connecting with one another. It also allows them to become flexible to change. If a family becomes aware of the adversity and prioritises the hardships by addressing the most detrimental hardship first, resources to enable resilience are drawn on more easily (Ebersöhn, 2013).

Having a role model in the family unit where values can be emulated by the next generation as they transition into adulthood, may enable adolescent resilience. This is only possible if the role model also demonstrates resilience (Madhavan & Crowell, 2014). An example was a study with females who relied heavily on their social system made up of mothers and grandmothers

as a source of support to strengthen their resilience (Malindi, 2014). In a study by Madhavan and Crowell (2014) among black youth in rural South Africa on their aspirations, it was found that mothers were important role models. They were directly involved in the family as the fathers had to move away because of economic vulnerability. Not only did the young women draw on the example of older generations, but they stood and worked together within their social system.

Communication also has the power to enable resilience (Ebersöhn & Bouwer, 2015). In a comparative study with South African and Belgium families on the topic of remarriage, Greeff and Cloete (2015) showed that in order for family communication patterns to be a resilience enabler, they had to be affirming and positive. Family cohesion was used to gain access to vital resources that the family needed. In addition, what families believe and how spiritual they are can support resilience. I agree as the above fits with my personal experience. Spiritual characteristics, including belief systems, are a resilience enabler for both individuals and families (Kumpfer, 1999). Research by Vermeulen and Greeff (2015) on family resilience states that the belief system of the family is important in membersøability to adapt to adversity (such as sexual abuse). The belief system frames how the family makes meaning of adversity and contextualises distress.

2.3.2.1 Family-based resources specific to drought

Many families in South Africa who live in rural areas are often most affected by drought. These families adapt to the conditions and rely on natural products to provide energy, food and shelter (Vetter, 2009). Many families rely on early warnings of drought to enable them to prepare and manage the harsh conditions of drought. An example of preparedness is when some families relocate to a different area to ensure that they are not affected by the drought (Rukema & Simelane, 2013).

Economic capital is seen as a resource to counter drought and includes income, savings and access to capital (Vetter, 2009). Households that become frugal and forward thinking in their use of money are able to adapt in times of drought. Families should not spend money on luxury items such as toiletries; instead they should save their money for vital resources such as food, in case the drought is present for an extended period of time (Alston & Kent, 2004). Although family separation due to employment sourcing in urban communities has a negative impact on drought, it can also be seen as a resilience enabler. With the family member or members earning an income, the family is better equipped to handle the adversity of drought (Rukema &

Simelane, 2013). In the presence of drought, praying to ancestors is a culturally relevant resilience enabler in South Africa. Adolescents pray to their ancestors for protection and the provision of water (Rukema & Simelane, 2013).

Another example of familial support can be seen in research done by Alston and Kent (2004) who looked at the social impact of drought in Australia and found that family support eliminates feelings of being isolated. Diminishing the feeling of isolation is important as it acts as a barrier and creates resilience in adolescents. In many areas, young females draw on support from their older female family members. Women have a collective response to drought and are united in their work to start the process of positive adaption (Meyiwa, Maseti, Ngubane, Letsekha & Rozani, 2014).

2.4   The community system

Community can refer to people in a specific geographical area and time, as well as to a social system or a way of life (Visser & Moleko, 2012).

A community develops interrelated as well as interconnected relationships among its sociological components (Visser & Moleko, 2012), which can according to Mosavel et al. (2015) be seen as encompassing material (shelter), psychosocial resources (health, well-being and quality of life) and sociocultural resources (values and beliefs that frame social events). On a community level, factors that have an impact on the resilience of adolescents (Li, Chi, Sherr, Cluver & Stanton, 2015) include social support from peers, mentors and other community members, as well as effective schools, supportive teachers and a supportive community.

2.4.1   Risks related to the community

Negative peer pressure that is experienced by adolescents may result in risk taking and poor behaviour (Choe, Zimmerman & Devnarain, 2012). In a qualitative study conducted by Selikow, Ahmed, Flisher, Mathews and Mukoma (2009) dealing with peer pressure and sexual risk behaviour among young adolescents residing in Cape Town, these researchers found that negative peer pressure creates unhealthy social norms and high-risk sexual behaviour. When antisocial peers form friendships, this may lead to an increase in their problematic behaviour (Choe et al., 2012). There is also a negative influence on peer attitudes which leads to shared behaviour towards violence. Adolescents who are victims of bullying showed reduced resilience (Collishaw et al., 2015; Li et al., 2015).

Poor behaviour and outcomes related to poor achievement can be attributed to a lack of role models within the community, as was observed in research by Madhavan and Crowell (2014). In addition, when role models are absent, there is a lack of self-esteem in male adolescents (Gladding & Villalba, 2014). In the latter study, the impact of role models in films promoted maturity among male adolescents.

A number of school-related risks in certain communities are worth noting. Advantaged communities can pay substantial fees (often given by parents and not state-funded) to fund additional teachers and resources, while many rural and other resource-poor schools receive few or no fees and struggle to offer even the most basic conditions for learning. This results in inadequate sanitation, an unsafe environment, untrained staff (Lumby, 2015) and overcrowded classrooms (Department of Basic Education, 2013). These factors place an adolescent at a higher risk of premature school dropout.

According to Van Rensburg et al. (2015), risks within the community include challenging social ecologies. An example of this is ‑streetismø and violence. ‑Streetismø has been identified as a risk in studies conducted by Hills et al. (2016), Malindi and Theron (2011), Malindi (2014), and Malindi and Machenjedze (2012). In a study by Theron and Malindi (2010), street youth were seen as consistently vulnerable and facing many challenges in their ecology. An adolescent who is exposed to violence regularly is more likely to also engage in violent behaviour (Choe et al., 2012; Ebersöhn et al., 2017). Exposure to violence is also noted as a risk in a study by Pretorius, Padmanabhanunni and Campbell (2016) on adolescents who are exposed to violence but nonetheless make use of personal and social resources to positively adapt to the violence. The inability of law enforcement agencies to maintain safety in a community is seen as a major barrier to reducing violence in that community (Mosavel et al., 2015). I have never seen this first hand but by keeping updated with the news in South Africa I agree with this statement by Mosavel et al., 2015.

2.4.1.1 Drought-specific community-based risks

Communities are directly affected by drought, particularly in farming communities. Drought causes financial limitations that in turn affect community engagement (Alston & Kent, 2004). An example is the fact that the risk of drought makes an adolescent vulnerable to economic, health, social and cultural challenges (Keim, 2008). Economic vulnerability occurs for instance when adolescents experience a loss of employment, especially those who rely on seasonal farm employment in commercial farms (Rukema & Simelane, 2013). In my experience these

community based risks are relevant and true as I would see the above happening in the small farming community I grew up in. For example, when there was a drought, many farmers could not gain profits from their crops and this would mean that many families could not engage in community interactions as finances were put to more need-based situations.

According to Carnie et al. (2011), a lack of connectedness is an implied risk within drought-affected areas. This lack of connectedness in a community causes disintegration within the community as isolation occurs (Logan & Ranzijn, n.d.). People are unable to afford to create community social gatherings or afford transport to these social gatherings. Their community connectedness is therefore deeply affected by these financial constraints (Alston & Kent, 2004).

2.4.2   Community-based resources

Peer or friendship relationships provide a sense of belonging and unity, which gives the adolescents a healthy self-concept (Lethale & Pillay, 2013; Ebersöhn et al., 2017). Consistent peer relationships provide a sense of hope and confidence to stand up to challenges that adolescents may face, and thus they strengthen their resilience (Lethale & Pillay, 2013; Ebersöhn & Bouwer, 2013; Pienaar et al., 2012).

In a study conducted by Wild et al. (2011) that looked at risk and resilience in orphaned adolescents who live in a community affected by HIV/Aids, it was noted that adolescents with a strong connection to a peer or friend showed signs of greater emotional resilience. In the study conducted by Hills et al. (2016) with street youth in Durban, South Africa, it was noted that peer support went beyond emotional support. Peer support was also observed in the provision of material support such as money and food.

Role models assist adolescents in finding their identity as they are able to model a code of behaviour as well as assist adolescents in developing control (Mampane, 2014). If this code of behaviour is relatable to adolescents, then they are able to identify their personal goals for the future (Madhavan & Crowell, 2014). Onya, Tessera, Myers and Flisher (2012) observed community influences on South African adolescentsøuse of home-brewed alcohol in rural areas of South Africa. When community members were role models, affirmed good behaviour, and showed pride towards the adolescents within the community, the adolescents felt safer within their environment and were less likely to engage in alcohol abuse. In a study by Teitelman et al. (2016) of South African adolescents, on associations of intimate partner violence and relationship power, it was found that having males and females as community-based role

models to co-facilitate and promote gender equality usually resulted in an intervention to reduce at risk sexual behaviour in adolescents. Both of these studies (Onya et al., 2012 and Teitelman et al.,2016) suggest that role models enable positive adolescent outcomes.

In South Africa, school-based support is a major resource that is needed to ensure resilience among children and adolescents. As many adolescents may not have sufficient familial support, the school and teachers act as the next available resource that they can count on (Mampane, 2014). Adolescents may also identify with their teachers and emulate them as role models (Mampane, 2014; Van Rensburg et al., 2015). Schools can be seen as places of care and support not only for adolescents but also at a community level (Ebersöhn & Ferreira, 2011). A study by Theron (2016) among black South African adolescents on the cultural and contextual understanding of resilience found that social support (including support from teachers and social workers) facilitates a culture or ethic of care, via parent-like acts such as providing adolescents with money, food and other essential resources. An additional resilience enabler was the concept of flocking described by Ebersöhn (2012; 2014). Flocking is when teachers and other community members collaborate to make more resources available.

Schools ensure opportunities for upward movement (e.g. academic success that leads to possible job opportunities Mosavel et al., 2015). Schools that create an atmosphere of pro-social change and teachers who champion future orientation (i.e. goals and dreams), are noted with appreciation in Lethale and Pillay (2013), Jefferis and Theron (2017), and Mampane (2014) as resilience enablers. School support and teacher-adolescent relationships are characterised by helpfulness, acknowledgment of accomplishments and role modelling (Theron & Hall, 2016; Ebersöhn & Ferreira, 2011; Collishaw et al., 2015). Within a school context, support from an educator is an important resource for resilience of adolescents who had become head of their household due to the adversity of HIV/Aids (Lethale & Pillay, 2013). A good relationship between the educator and an individual adolescent should feature compassion, acceptance and a belief in success for the future (Mampane, 2014; Lethale & Pillay, 2013).

A supportive school also creates an environment where adolescentsøresponsibilities can be put aside and they can engage in recreational activities. Interaction between school personnel and peers occur naturally in these recreational moments. An example of this is seen in a study by Malindi and Machenjedze (2012) on the role of school engagement in strengthening the resilience of male children who live on the street in South Africa. Interactions between school

personnel and adolescents reduced the latterøs negative feelings of loneliness. In this regard, a participant who took part in the study by Malindi and Machenjedze said the following:ö School opened my mind too. I can now interact with other children and big people. School is good and you can be very lonely when you are alone. I shall not go to the streets any more, I have friends at schoolö (Malindi & Machenjedze, 2012, p. 74-75).

Many adolescents indicate that churches and role players within the church and the religious community who are positively supportive, are also a resource for resilience (Ebersöhn et al., 2017). Physically attending church services, in addition to engaging with role players within the church community, provided feelings of healing and comfort (Pienaar et al., 2012; Wild et al., 2011). In research conducted by Brittian et al. (2013, p. 650) among black youths living in the Johannesburg-Soweto metropolitan area to examine their perceptions of religion, one of the youth said: õThe people you have around you (church community), influence you and they help you growö.

Engagement in recreational activities, as encouraged by the community, was a source of sustaining resilience reported by Theron and Theron (2010). An example of these activities was attending libraries to read, as well as engaging in team sports. In their study, Malindi and Theron (2011) found that South African male street youths relied on physical recreational activities to support their resilience. For example, playing soccer as an intrapersonal resilience was an enabling resource for this population. This finding also tied in with physical well-being as a component of internal resilience as suggested by Kumpfer (1999). In a study conducted among female street youths in South Africa, Malindi (2014) reported that recreational activities were also important for girlsø resilience. However, unlike the malesø reliance on physical activity, females engaged in fewer active events, and preferred listening to music.

2.4.2.1 Drought-specific community-based resources

Again, the literature cited below refers to farming communities in particular. When the adversity of drought is present, communities draw on resilience factors such as collaboration to adapt to the challenges. These adaptions refer specifically to the needs of the community that experiences drought (Hart et al., 2011; Meyiwa et al., 2014). For example, in a study that Carnie et al. (2011) conducted on mental health in rural New South Wales areas affected by drought, it was noted that community connectedness (collectively seeking solutions to drought) was a resilience enabler. Community connectedness recognises that adversity is not a

phenomenon that is experienced on an individual level. There is generally a cooperative, collective response to the adversity (Mosavel et al., 2015).

2.5   The macro system

According to Ungar (2011; 2015) the macro system forms part of the social ecology that creates the contexts, values and beliefs that influence an adolescentøs development, and this may sustain or obstruct resilience. The macro system also includes a social ecologyøs laws, customs and cultural practices. The macrosystem differs from the others (e.g. microsystem) in that it does not directly influence the adolescent, but still includes social structures that are effective in the life of an adolescent (Vélez-Agosto, Soto-Crespo, Vizcarrondo-Oppenheimer, Vega-Molina & García Coll, 2017). For example, in South Africa, the adolescent, family and school setting have a direct influence on the adolescent yet the cultural practises that an adolescent is surrounded by can also been seen as an effective resilience resource.

2.5.1   Macro-level risks

The large number of adolescents living on the streets provides a challenge to government, policymakers and non-governmental organisations (Hills et al., 2016). This challenge is also evident in the HIV/Aids pandemic in South Africa, which has many consequences for adolescents. A few of these are that many adolescent rights ó such as the right to survival, health and nutrition, education and protection from harm ó are hindered due to their HIV/Aids status, which makes them vulnerable to negative outcome (Pienaar et al., 2012).

The apartheid legacy still influences South Africa on a macro level. Promises of employment, housing and service delivery have not been fulŁlled, even though we are in the second decade of a post-apartheid society (Hlatshwayo & Vally, 2014). This is evident in reports by Röhrs et al. (2016) which show that there are inequalities between well-resourced and under-resourced areas. Hospitals and clinics in well-resourced areas are better able to assist people in need, whereas under-resourced hospitals and clinics struggle to implement care for the surrounding populations. The apartheid regime had laws such as the Group Areas Act that restricted where black people could live, and this forced the males in families to migrate far distances to work and earn money (Madhavan, Richter, Norris & Hosegood, 2014). The above inequalities also put adolescentsø health and well-being at risk, and together with the legacy of apartheid they contribute further to a lack of resources in resource-constrained communities.

2.5.1.1 Drought-specific macro-level risks

In a study conducted in Msinga village, KwaZulu-Natal, Rukema and Simelane (2013) noted in group discussions and individual interviews with participants that most participants supported the belief that human misbehaviour towards the environment and disrespect to ancestors result in disease, death and natural disasters. õNow ancestors are getting angry. That is why you see this droughtö (Rukema & Simelane, 2013, p. 114). Misbehaviour that is linked to African religion, including ancestors (Brittian et al., 2013) is a macro-level risk because a potential resource for resilience (culture) has become associated with adversity.

A study conducted by Alston and Kent (2004) on the social impact of drought in Australia stated many difficulties that may arise when trying to adapt policies to accommodate the effects of drought. A few of these difficulties are the long time needed for drought relief, reliance on the region, the need to separate farm business assistance (economic) from poverty relief measures (social), and an equal need to include environmental sustainability support.

2.5.2   Macro-level resources

Culture refers to collective values and practices that are original to, and recognised by groups, making them interconnected (Barnes, 2015). One of Ungarøs (2011) principles of the Social Ecology of Resilience Theory is cultural relativity. This principle refers to resilience as being effectively promoted if resilience enablers are culturally relevant. Such cultural relevance will mean that majority and minority populations consider accessible/available resources to be meaningful when viewed through a cultural lens (i.e. a specific resource should not be considered universally useful) (Ungar, 2011). For example, the role of ancestral and spiritual values (e.g. hope and strength) among street youths has been suggested as an important source of resilience (Barnes, 2015; Oppong Asante, 2015; Theron et al., 2011; Theron & Malindi, 2010). In a study conducted by Hills et al. (2016) on street youth in Durban, South Africa, a small number of participants referred to their ancestors as a source of protection during difficult times on the streets. In contrast, however, many participants in this research stated that they did not believe in the ancestors and preferred to rely on their Christian values and beliefs as a source of resilience. In a study by Brittian, Lewin and Norris (2013) with South African youth and their perception on religion, religion was seen as a source of emotional support for adolescents. Religion was also seen as a way for South Africans to find their cultural identity in a diverse nation. This cultural identity influenced their purpose in life. Research conducted by Theron and Hall (2016) among adolescents with intellectual disabilities reported that

religion was also seen as a source of hope and tolerance for the hardships experienced by adolescents.

The aim of policies in South Africa is to transform societies that were previously shattered due to the legacy of apartheid (Republic of South Africa, 1996). According to South African education policy, teachers are expected to go beyond their educational role and take on a pastoral role, which includes providing psychosocial support to their learners in the school setting (Schoeman, 2015). The above policies support resilience because they strive for equal opportunities and health care resources, as well as create an opportunity for teachers to become a support resource for adolescents who are experiencing adversity.

The collapse of apartheid brought positive views of the future and high expectations of equal opportunities to education and employment, particularly for adolescents. A National Youth Commission (1997) was created to address the challenges facing adolescents and to develop policies to assist them in making effective transitions into adulthood. For example, as noted earlier, many adolescents are the heads of their households due to deceased parents, and this policy would be a resource that is available for adolescents to draw on and engage with resilience, as it would alleviate some of the compounded stressors.

The National Health Insurance White Paper created certain policies to strengthen health benefits for adolescents. These firstly involve ward-based outreach teams of community health workers that support households and communities to promote health and identify adolescents in need of preventive, curative or rehabilitative services. Secondly, the Integrated School Health Programme tries to reduce barriers to learning, in addition to improving the well-being of and life chances for young children and adolescents. Thirdly, district clinical specialist teams provide clinical support to improve health services on a district level and strengthen the referrals systems (Röhrs et al., 2016). Referral systems have been seen as a challenged area in South Africa, according to Eloff et al. (2011) in a study among HIV-infected South African women and children and their need for additional services. Theoretically, these systems are a good start, but a theoretical system cannot become a resilience enabler. The referral systems need to be both effective and systems of change in order for them to enable resilience.

The social grants system in South Africa attempts to build a more equal society, and the South African Constitution recognises the history of discrimination. Social grants play in important role the elevation of poverty in South Africa. Many families rely on social grants from the government to buy food and other resources (Röhrs et al., 2016). In addition, non-governmental

organisations (NGOs), community organisations and other civic structures support resilience by providing for instance feeding schemes to empower child-headed households. These support structures alleviate the responsibilities of adolescents (Lethale & Pillay, 2013).

2.5.2.1 Drought-specific macro-level resources

Many of the macro-level resources that are specific to drought are international and do not focus on adolescents. This finding supports the gap that I have identified in my research.

In a study conducted by Hart et al. (2011) the objective was for a macro-level programme to improve the lives of individuals affected by drought. Another example is implied in the study by Rukema and Simelane (2013) that was conducted in Msinga village, KwaZulu-Natal. Drought-specific government support, such as the government providing water to the different communities (such as Msinga) that were affected by drought, would alleviate the stress related to drought. In Australia, the Rural Adversity Mental Health Program 2008ó2009 (RAMHP) had certain objectives, namely to identify the mental health needs of rural families due to drought and environmental events; and to develop, implement and evaluate programmes to address these needs. The RAMHP also identified drought-related mental health needs of Aboriginal communities (Minority) and any potential programmes to address these and intended to improve mental health literacy to reduce the stigma associated with mental health problems. Lastly, the RAMHP aimed to increase the participation of general practitioners in mental-health-related services to assist rural communitiesø adaption to drought and environmental change. These objectives were meant to support resilience as needs were identified and programmes were developed to specifically address the needs identified in drought. Support systems were therefore put into place to become resilience resources that are context-specific.

2.6   CONCLUSION

In summary, Chapter 2 quoted multiple South African studies that explain the risks and enabling resources that hamper or contribute to the resilience of adolescents. This chapter also highlighted international studies that explain the effects of drought on an individual, familial and community level. None of the South African studies focused on adolescents and their resilience in the context of drought. This confirms the importance of my study that identified this gap in the body of knowledge on resilience. I will explore how insight into the resources that adolescents in a drought-challenged context identified as important to their health and well-

being, could inform educational psychologists' understanding of resilience in a drought-challenged context. The next chapter explains the methodology that I used in my study.

CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

This chapter discusses the chosen research design and methodology and includes an explanation and description of both the meta-theoretical and methodological paradigms used. An explanation of the research design follows, including how the participants were selected. The data generation is discussed, after which the methods of, data analysis and interpretation, and trustworthiness are dealt with. The ethical considerations conclude this chapter.

3.2 PURPOSE OF THE STUDY

The purpose of this qualitative study was to explore the intrapersonal and interpersonal resources that male and female adolescents who are challenged by drought identify as important to their health and well-being and to **theorise** how this information could inform educational psychologistsø understanding of resilience in a drought-challenged context. Since these resources were important to both the health and well-being of the adolescents when faced with adversity, specifically in the context of drought, the nature of this study was exploratory. Exploratory research aims to find out more about the phenomenon itself and the research questions related to the study, but does not require concrete solutions to the phenomenon to be created (McMillan & Schumacher, 2010). Exploratory research simply aims for a better understanding of the phenomenon or research topic (Singh, 2007).

3.3 PARADIGMATIC PERSPECTIVE

3.3.1 Meta-theoretical paradigm

Social constructivism is often used interchangeably with interpretivism (Chambers, 2012), which is seen as the umbrella term for this paradigm (Picciano, 2015). For the purposes of my study I chose social constructivism as the epistemological or meta-theoretical paradigm. One of the principles of social constructivism is that reality is socially constructed, and that individuals interpret or develop a subjective meaning of their experiences that is experience specific (Bloomberg & Volpe, 2012). When working within a social constructivist paradigm, researchers co-construct the meaning of the research phenomenon with the collaboration of multiple participants. Theories can then be generated from these interactions (Creswell, 2014).

According to social constructivism, the experiences and perspectives of participants have an influence on the findings. Picciano (2015) agrees and adds that the insights of participants are the researcherøs main way of interpreting the phenomenon. The social constructivist paradigm

lends itself to group activities, and meaning is socially constructed with the use of co-productive methods.

This epistemology was suitable for my study because knowledge was co-constructed through interaction between the researcher and participants, as well as by working in collaboration with the community. I took on the role as facilitator and the participants were my co-researchers. By engaging fully with the participants, I gained a deeper understanding of the research phenomenon explored in my sub-study (Chambers, 2012).

An advantage of the co-productive method within social constructivism is that participants are often not conscious of the deeper meaning behind their experience, and the researcher supports the participant in bringing this to light (Ponterotto, 2005). For example, in my study, knowledge was co-produced and I as the researcher probed for deeper meaning in the context of what was being said by the participants. The social constructivist paradigm accepts that reality is not determined objectively and that multiple (not singular) realities of a certain phenomenon exist (Aranguren, 2017).

I faced a number of challenges in adopting this paradigm and had to use certain strategies to address these challenges. A social constructivist is aware that historical, cultural and personal experiences and interpretations can have an effect on the research. If the researcher is not aware or does not state awareness of these effects, the challenge of researcher bias may arise (Picciano, 2015). As the researcher, it was important for me to perceive the research as independent from my own prior knowledge and understanding, and to avoid being subjective in my approach (Maree, 2007). It was a challenge to not make assumptions based on my own knowledge of resilience and drought. I tried to address this by constantly reminding myself not to assume or clarify the answers of the participants when given.

Before the research started, I spent time reflecting on assumptions or preconceived ideas that could have arisen before my data collection and interaction with the groups. By being upfront about these assumptions and preconceived ideas (such as that adolescents are still able to be resilient despite experiencing hardship), I tried to contain my suppositions. I also assumed that adolescents draw on multiple resources to enable resilience, be these extrinsic or intrinsic, and that in the area of Leandra, Mpumalanga, a deep cultural influence ran like a thread throughout the resilience process. By writing my assumptions down and reflecting on them during and after the research, my bias as researcher was reduced.

3.3.2 Methodological paradigm

My study adopted a qualitative approach. According to Creswell (2014, p. 32), a qualitative design can be defined as an õapproach for exploring and understanding the meaning an individual or group ascribes to a social or human problemö. A qualitative design is well suited to my research, as it lessens the importance of the researcherøs role and increases the power and ownership of the participant in the research (Theron, 2016).

I also chose to adopt a qualitative approach as I wanted to understand how adolescents view and interpret the phenomenon of resilience and drought. Since qualitative research is emergent, there were no preconceived ideas or answers. An emergent design also implies that the data collection process is not fixed. In qualitative research there is also an awareness of the fact that any process (ranging from the questions for the interviews to the visited site) may change (Creswell, 2014). In my study, the site that was used for the initial research was a community hall in Leandra, but this changed when we (the masters students) went back for member checking. We were then in a different hall, so even the venue seemed ÷emergentø. During my interactions with the participants I had to make many adaptations to the activities and the questions. For example, the group had the opportunity to make use of modelling crafts (i.e. clay and beads), but they were reluctant to use them. I had to then adapt and suggest creative ways to use paper to answer the question, as this was the preferred method voiced by the participants. At a later stage, the participants suddenly wanted to use the modelling crafts for another activity (for which it had not been intended), and as a group we adapted and used them (see Figure 3.1). This was challenging, as it was the first time for me to facilitate a research study. I questioned the validity of the methods used that aligned to the research methodology

indicated, but realised that my influence should not be dominant and that the participants needed to lead the study. This, thankfully, was achieved.
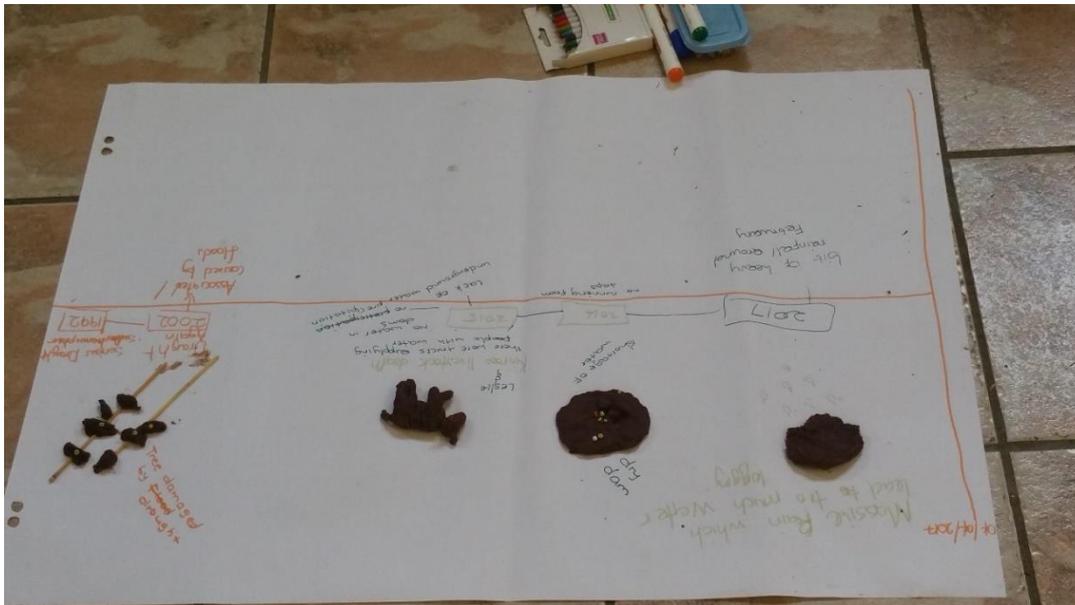
Figure 3.1: Activity with modelling crafts

Another characteristic of a qualitative approach holds great value in the sense that interactions take place in a natural setting. See Figure 3.2, which shows my co-researchers and me interacting with participants in their community hall in Leandra.

Figure 3.2: Leandra Community Hall

By interacting with the participants in their natural setting, I was able to observe their behaviour in the context where this phenomenon was experienced (Lin, 2013). The advantage of being in the natural setting is that there was face-to-face interaction, which usually results in a better chance for trust and rapport to be established. The challenge in practice was that this method relied on getting to and residing in the participantsø natural setting, which was a costly affair. Finances were difficult to attain. Although travelling to the natural setting posed a challenge to us in terms of extra expenses for travelling and accommodation costs as well as food, the participants voiced their appreciation for our efforts of going to them and hearing their stories.

In a qualitative approach, the position of the researcher may obstruct the rapport that is meant to be forming. Classifications of race, class, gender and age may all create obstruction. I was aware that our position could be a challenge because we come from a university. This could cause the groups to view us in a certain light, which might taint the interactions or negatively influence their responses. Throughout the research I tried to ensure that nothing would put me in a superior or intimidating position, either in body language or verbal interactions. I believe this was successful, as I did not feel a direct effect of being a white female privileged enough to go to a university.

The first challenge in a qualitative approach is often the language barrier. Language and communication are vital aspects of qualitative data collection in order to gain a deeper understanding of the researched phenomenon. Unless the researcher is proficient in the language of the participant or vice versa, an in-depth interview cannot be attained (Shi, 2011). A strategy that worked in my study was to use a common language that both the participant and researcher were comfortable with. English was used and worked. I found that although the participants had a working knowledge of English, there still remained a slight language barrier, particularly when one considers the deeper understanding that social constructivism calls for. This meant that more time than expected was spent on confirming the meaning of what the participants were trying to say. Although the face-to-face interactions presented language barriers, the levels of exposure and interaction I experienced as a researcher in this natural setting were both enriching and edifying.

A central characteristic of a qualitative design is that the researcher is the instrument of data collection. By making use of observations, document examination or interviews, the role of the researcher is an important tool towards what data is generated (Creswell, 2014). It was helpful to have a co-facilitator (an honours student) who documented the activities and worked the

voice recorder. As the researcher I tried to ensure that I was open in my body language while gathering the personal experiences from participants for the data. I engaged in the research and data collection methods, balanced this with a friendly rapport, and showed respect to ensure that I was an effective research instrument. A researcher needs to put skills into practice to gather essential information from participants and to reach a clear understanding of the research phenomenon. As a researcher I tried to detach my personal life and get a good night's rest before each day to ensure I was not exhausted. If I had let exhaustion and emotional distractions gain the upper hand, or if I had not managed to separate my personal life from the research, the data collection would have been compromised. I found it challenging to isolate the data-gathering exercise from my personal life in terms of feeling the guilt of privilege. For example, I would look at the surrounding housing, hear some of the stories the participants shared about their day-to-day lives and then have to constantly remind myself to not let guilt flood my perceptions. I also made sure that water was provided to ensure hydration, especially in a building with little ventilation and a corrugated iron roof. By doing this I was at my best, health-wise, to avoid compromising the data collection. The water also supported participants to remain hydrated.

The final challenge involved collaborating with the gatekeepers within the community. According to Creswell (2014), gatekeepers are used to initiate entrance into the community, facilitate communication of changes that may occur, and follow up on communication. This often causes challenges, especially if disagreements occur between the gatekeeper and the researcher. The problem can be further exacerbated by the possibility that the gatekeeper might change over time (Theron, 2016). Fortunately, the greater project was in constant communication with the gatekeeper (a member of Khulisa Social Solutions) in Leandra and a good relationship had been formed. On a personal level, I was very conscious of the fact that I was a guest in the community. I had to uphold and respect that, and took care to thank the ladies who provided us with food. As a team we also ensured that the participants always got food before we did. I formally greeted the participants and elders whenever I encountered them and consistently showed friendliness and respect.

3.4   METHODOLOGY

3.4.1   Research design

Within the qualitative approach, I conducted a phenomenological study. The latter focuses on gaining a deeper understanding of a specific phenomenon through the experiences of individuals (Chambers, 2012). A phenomenological study is the recommended approach when

wanting to achieve such a deeper understanding (Creswell, 2014; Lin, 2013). The phenomenological approach allows for systematic reflection, where insight into a phenomenon can be understood or used for further research (Shi, 2011).

The value of a phenomenological study is that access to several people is possible where data is gathered and then compared to deepen the understanding of a specific phenomenon (Creswell, 2014). When engaging with the participants, the aim of phenomenology is to strive for 'eidetic reduction' (Lin, 2013, p. 471). This means that the surface knowledge of the phenomenon is pushed aside and what is valued, is the core of the experience and knowledge. Knowledge is seen as multiple and dynamic, and it comes from many personal origins and situations, which gives rise to the term 'knowledges', which is why my choice of a constructivist approach fits (Chambers, 2012, p. 72). An advantage of a qualitative approach with a phenomenological study is that it does not require a large recruitment of participants. The focus is on the quality of each participant's experiences. This goal played out in practice as a richer knowledge was gained from the smaller groups that we engaged with. The 43 participants were divided into eight groups, which again ensured smaller groups to work with. In the group I facilitated, the smaller groups were beneficial as I was able to hear each person's voice, story and point of view. While working alongside the participants, the phenomenological study helped me develop a sense of empathy and sensitivity to the participants, which aided rapport (Lin, 2013). Furthermore, each participant had enough time to share substantially without being rushed. I was able to learn each person's name, which further contributed to my rapport with the participants.

A challenge of a phenomenological approach is that the researcher may start to care about the participants or certain aspects of the phenomenon, and therefore he/she may only report on or collect information about issues to which he/she feels attached. This is a natural human response, but it hampers the creation of a holistic picture (Shi, 2011). As multiple students (around 16) and academics (around 4) were involved in this study, by working together as a team the challenge of only reporting on personally attached information was avoided. This meant that each person reported on different aspects of the research and many aspects were covered, as each person had a different experience. Although the sampling was of a purposive nature (involving a sample group with a specific objective in mind to ensure that all the participants were experiencing the phenomenon Nieuwenhuis, 2007), some participants still referred to themselves as not experiencing drought. The only reason that I could ascertain for this, was that these participants had been experiencing the hardship of drought every day, and

hence it had become an unnoticed adversity. The strategy that I put in place for this, was to not focus on the participant who was not experiencing drought, but to listen to their everyday engagements and draw information from their stories and responses to the probing questions. I knew that a comparison of the data, as well as data saturation would be done at a later stage.

3.4.2 Participants

As explained in Chapter 1, my study formed part of the larger GRCF project, and I had no direct influence on the recruitment of the research participants. They were recruited by the community partner (Khulisa Social Solutions) of the greater GRCF research. Khulisa used purposive sampling, in which participants are selected within a certain population (for the GRCF project this was Leandra, Mpumalanga), and those participants who have the most information about the phenomenon being researched, are typically recruited (Guarte & Barrios, 2006). Selecting participants according to certain criteria makes the participants relevant to the research question of the study (Maree & Pieterson, 2007).

The participants were recruited according to three criteria: Firstly age, as participants had to be between the ages of 15 to 18. The second criterion was language, as participants had to have a working knowledge of English and be comfortable communicating and writing in English. The third criterion was locality; participants had to live in the Leandra area. The project excluded young people with impaired decision-making capacity (e.g. severe mental illness or substance abuse problems). As directed by Emmelǿs (2015) conclusions on the advantages of purposive sampling, participants who fitted the above criteria improved the chances of the researcher to gain rich information relevant to the research.

Usually in qualitative research, participants are recruited until data saturation has been reached (i.e. when adequate data has been obtained or when the inclusion of additional participants does not lead to new findings) (Morse, 2015). The lead researchers (the academics) in the GRCF project estimated that data saturation would be reached at 10 to 15 participants (Morse, 2015). However, to be safe, 43 young people aged between 15 and 24 were recruited. Data saturation is important when content validity is required, as it strengthens the research and makes it a trusted source for further research (Francis et al., 2010).

My study was specifically aimed at exploring the resilience of those participants who were adolescents. The participants recruited by Khulisa (using flyers, see Addendum A and word-of-mouth recruitment) included 25 adolescents. This sub-sample included 16 girls and 9 boys. Based on an average of the ages as disclosed by participants, the average age of these

adolescents was 15 years and 6 months. The participants reported that their home language was Sepedi. They were all school-attending at the time of the study. As explained earlier, participants were invited to be part of eight groups. The adolescents were mostly in adolescent-specific groups except for one group that was mixed (See table 3.1). This was because of the ratio of participants to facilitators/co-researchers and the intention to have mixed (boys and girls) groups. All the groups engaged in the same data-generation activities.

Groups	Composition
1	All adolescents
2	Adolescents and young adults
3	All adolescents
6	All adolescents
7	All adolescents

Table 3.1 Summary of adolescent groups

3.4.3   Data generation

Two arts-based methods, namely body mapping and ÷sand-trayø work facilitated data that was relevant to the focus of my study.

3.4.3.1 Body mapping

According to De Jager et al. (2016), body mapping may be used as a tool to share, reflect and gain a deeper understanding of the person through his/her body. Body mapping is seen as creating a safe space for participants to draw supportive resources and then discuss related personal, emotional, cultural and political areas of their lives (Maina, Sutankayo, Chorney, & Caine, 2014). Body mapping was used in my study to enable participants to enhance their understanding or consciousness of their resilience related to drought (Ebersöhn, Ferreira & Mnguni, 2008).

Body mapping was used to assist the groups in understanding how drought had affected their health and well-being with reference to their body, mind and heart. In other words, areas of physical, mental and psychological health were focused on. The participants related to this activity very well. As the activity was quite concrete in terms of thinking and application, it assisted the participants in voicing their experiences and understanding of the phenomenon of resilience in the context of drought. The groups were able to use body mapping to reflect how they were experiencing drought in a health-specific and well-being way.

A disadvantage of the body mapping was that an individual could not trace his/her own body. Thus, the participants had to pair themselves so that they were able to assist each other in tracing their bodies. In my study the next challenge was that there was an unequal number of boys and girls and the participants understandably wanted to be paired with someone from the same sex. When I suggested that they work in groups of three to accommodate this, the solution was successful.

The co-researchers and I used the following prompts to guide participants to make a body map:

a.   How does drought affect the health of young people in this community?

b.   When there is a drought, what helps you stay healthy (i) in your body, (ii) in your mind and (iii) in your heart?

The body-mapping activity worked as follows. The participants observed a demonstration of how the activity would play out. Each participant was given a large piece of paper that would fit their body size and a coloured pen. They were then asked to form pairs to assist one another with outlining the body (See figure 3.3). The participants were instructed to trace the outline of their partner's body while the participant lay on the paper. Each participant then made his/her own tracing look more like themselves and more relatable. Body features were added such as eyes and lips, and the girls added what earrings or clothes they were wearing. Once this was completed, the participants then had to write what potentially made them healthy in their body, mind and heart when there was a drought. The notes were jotted down in different areas of the bodies. For example, what made them healthy in the heart was written or drawn in the part of their body where the heart would be found (See figure 3.4). The participants subsequently explained what they had drawn on their body map and this was recorded with a voice recorder.

I proceeded to probe with questions if I wanted to find more information on a particular drawing they had not explained.

Figure 3.3: Participants engaging in body-mapping activity

Figure 3.4 Figure showing heart details

3.4.3.2 'Sand-tray' work

Sand-tray work is formally defined as a tool that allows adolescents to create a three-dimensional picture in sand with toy miniatures (Adlem, 2017). Sand trays were not used clinically as prescribed in literature dealing with ₌sand tray literatureø (Adlem, 2017; Carmichael, Echols, & Warren, 2016; Eberts & Homeyer, 2015). Since the greater project simply used sand and figurines to encourage visual reflection and conceptualisation of what or who enables resilience in the context of drought, I refer to it as ₌sand-trayø work. ₌Sand trayø activities were beneficial to the researchers as they portrayed a context-rich description of participantsø experiences (Draper, Ritter & Willingham, 2003). The activities made use of symbolism as the materials (sand and figurines) were multidimensional and allowed for several ways in which the story could unfold (James & Martin, 2002). The ₌sand-trayø work also created concepts that were symbolic to the group within the context of drought. It was

beneficial for groups with language difficulties as a sand-tray works on a pre-verbal and unconscious level (Richards, Pillay & Fritz, 2012). This was especially helpful in my research project as English was not the mother tongue of the groups

The co-researchers and I used the following prompts to guide participants during the ‑sand-trayø activity:

a.   What does it mean for a young person to be OK when there is drought?

b.   What/who makes it possible for young people to be OK when there is drought?

The sand-tray activity worked as follows: Each group chose a space outside in which to work. This was a challenge, as many of the spaces were in the sun and my group was reluctant to come outside. Fortunately, I found a shady place for this activity to be done. As there were not

enough trays for eight groups, the sand was poured onto the ground in a concentrated area. Each group was given a bag of figurines including figures of basic animals (e.g. a chicken, a cow), trees, houses and human figures (see Figure 3.4). They then built a collective ‑picture in the sandø, while discussing the best way to combine their ideas as a group and answering the question posed to them. They subsequently selected a spokesperson to explain what the group had collectively built. This explanation was recorded and again I probed with questions if I did not fully understand what had been built or said.

Figure 3.4: Sand-tray activity

3.4.4 Data analysis

My proposed method of data analysis was inductive content analysis, which can be seen as a bottom-up approach and implies that codes and themes emerge from the data (Nieuwenhuis, 2007). One form of inductive content analysis is thematic analysis. Thematic analysis is a method for pattern recognition to identify, analyse and report on themes within data (Fereday & Muir-Cochrane, 2016). My research was influenced by the social constructivist paradigm where knowledge was seen as socially constructed. It was therefore important not to have preconceived ideas of what the data would show, but to approach the analysis flexibly. Thematic analysis allows for flexibility; hence it is not fixed within the boundaries of a theory or preconceived ideas (Braun & Clarke, 2006). Thematic analysis was suitable in my research as relevant information was coded to answer my research question. The guiding questions that I asked was:

1) What are the intrapersonal resources that support the health and well-being of adolescents in the drought-challenged context of Leandra, Mpumalanga?

2) What are the interpersonal resources that support the health and well-being of adolescents in the drought-challenged context of Leandra, Mpumalanga?

The inductive thematic analysis proved to be time consuming and labour intensive, as the data that was collected needed to be transcribed. This challenge was alleviated when the data was divided among the group of co-researchers. Each member transcribed their own group and this process was checked by the project manager, which heightened credibility. In order to do the thematic analysis correctly, the six phases of Braun and Clarke (see below) had to be implemented properly and thus it took time to read, re-read and critically analyse the data. There was a plan in place and deadlines were set by the group, which assisted me to stay on track with all the phases that needed to be applied. On a personal level I made use of a calendar and personal deadlines to ensure that I created or provided sufficient time for each phase.

Another challenge involved the credibility of answers. It was difficult to solve this challenge but specific actions were put in place to reduce the likelihood of false answers. Firstly, good rapport was built with the participants so that they were prepared to share genuine and honest answers even though these were not always socially acceptable. Secondly, as the researcher I noted when answers were not saturated or endorsed when I did member checking, and then I excluded them from the themes reported.

Assumptions can easily be present when one analyses data and such assumptions had to be bracketed in my research so that their influence could be nullified. Researcher bias on the themes can become evident when thematic analysis is applied to the content of the data. The solution to this was peer debriefing, which took the form of discussion and comparison meetings, as well as group collaboration where assumptions were constantly monitored.

To identify the themes, I followed Braun and Clarkesø(2006) six phases of thematic analysis:

Phase 1: Familiarising oneself with the data

I immersed myself in the data by reading the transcribed data repeatedly until I was familiar with its content. Repeated reading was done in an active way and I made notes of initial ideas of interest that had first come to mind. For example, as I was reading I was actively aware of the differing support systems that the participants relied on during a drought, as well as their differing understandings and definitions of drought. I wrote down these ideas on a separate piece of paper (not with the transcripts).

Phase 2: Generating initial codes

Codes were written to identify information that was relevant for answering my research questions. I had to constantly look at the research questions that were written on a separate page to ensure that the information I wanted to code remained relevant. These codes were then noted in a systematic way and each paraphrased set of data that answered the research question was given equal attention. For example, on a landscape A4-paper with the transcripts typed out, I highlighted what was relevant to the questions and then wrote down open codes (i.e., key words/phrases that related to what the participant had said/drawn in reply to my research questions). These were written on the page parallel to the typed transcripts (see Addendum E).

Phase 3: Searching for themes

In this phase the open codes were sorted under specific candidate themes. It was helpful to mark similar codes in certain colours to sort the codes under a particular theme. While I was searching for themes, main themes as well as sub-themes started to emerge. (See Addendum E.)

Phase 4: Reviewing themes

This phase was conducted on two levels. Firstly, I reported on the candidate themes that emerged at the level of the coded data. The codes and potential themes were written down and

discussed with my peers to see if a pattern emerged. The academic and student researchers discussed the themes and suggested alternatives by searching for contrasting evidence.

On level two I considered the emerging themes in relation to the data set that was obtained from the body-mapping and ‑sand-trayø activities. I then re-read the entire data set to ascertain whether the themes related to my research questions. Then I re-coded any information that might have been missed initially. By the end of this phase, I had an overall idea of what the saturated themes were and the initial ‑storyø the data was creating.

Phase 5: Defining and naming themes

We invited participants to comment on the emerging themes. On the 24th of June 2017 we took a summary of the themes (See Addendum D) to the participants. I was particularly interested in the comments of the adolescents. I used this member-checking (see 3.5) to finalise the themes I report in Chapter 4. I refined the themes by identifying the core of the themes and giving each a key name. I invited my student co-researchers to comment critically. We discussed the overarching themes and sub-themes that had become more prevalent. Clear names and definitions for each theme were then listed in a consensus table. The names of these themes were concise and gave a clear vision of what the themes entailed. For example, the consensus table included the name of the theme, the inclusion and exclusion criteria, as well as a quote from the participants that best suited this theme. (See Addendum F.)

Phase 6: Producing the report

The final report to be written needed to be a concise, non-repetitive and logical publication of the account of the data. This report took the form of my mini-dissertation and had to contain sufficient evidence of the themes to confirm validity of the analysis. The report needed to go beyond a narrative description as it had to provide an argument that was relevant to my research question.

3.5   TRUSTWORTHINESS AS QUALITY CRITERION

Trustworthiness can be divided into five sections: Credibility, dependability, transferability, confirmability and authenticity.

Credibility refers to the truth of the data collected and how correctly the views and experiences of the participants have been documented and interpreted (Cope, 2014). The credibility in this study was upheld by making use of voice recorders to ensure that all that was voiced by the participants was documented. That information was then transcribed word for word and as the

researcher I did not use my own interpretation of the data. The transcripts where subsequently checked by the project manager.

Member checking is a strategy that also improved trustworthiness of the project: I reflected on the themes and the participants counterchecked whether these themes were a true reflection of what they wanted to portray (Birt, Scott, Cavers, Campbell, & Walter, 2016). Time needed to be spent with the groups so that trust and rapport could be established, and this contributed to the richness of the answers given and collected. I engaged with the participants on a small-group level through an introductory activity (making use of rocks and rhythmic sequences) to introduce information about themselves. I eventually spent two days interacting with the participants to build rapport on an interactive level. I reflected an open body language to make it easier for the participants to give true and honest answers.

Dependability refers to the consistency of a project. A good way to test this is, if the research is ever repeated with similar participants, in a similar setting, would the findings be similar? (Cope, 2014). Rolfe (2006) argues that dependability is not essential in qualitative research. Striving for similar findings introduces a sense of reproduction that reduces the significance of the data specific to a research project. Dependability was nevertheless heightened by the fact that my coding was verified by my audit trail (see Addendum E) as well as by consensus discussions with my fellow student researchers and the academic researchers.

Transferability is when one is able to transfer the findings to a similar context (Morse, 2015). I provided sufficient information of the context of the research by stating the specifics of the participants (see 3.4.2), the specifics of the area (see 1.8) as well as the phenomenon (drought), to allow for the findings to be transferred to another group of similar participants in a similar context (Cope, 2014).

Confirmability shows to which degree the findings are consistent and free from biased views (Connelly, 2016). Confirmability can be achieved by ensuring that we as the researchers make it clear how the data was collected as well as how the findings were interpreted (Cope, 2014). Peer defriending and member checking (we took the findings back to the participants on 24 June 2017 and asked them to verify or revise what we had concluded) were strategies employed to ensure that trustworthiness was achieved. It was easy for fellow researchers to pick up on any biased opinions by reading my transcripts and final report. The fact that we did a class presentation on our research methodologies put another measure in place to ensure that no bias had infiltrated the research (Spillett, 2003).

Authenticity refers to the ability of the researcher to express the participantsø experiences (emotions and feelings) in a faithful manner (Cope, 2014). The reader should understand the core of the participantøs experience through what the researcher wrote, in order to grasp the deep meaning of the phenomenon (Lincoln, 2016). The strategy during my research to ensure authenticity was that I used the exact words of the participants where possible and made sure to record and transcribe everything that the participants shared. I also tried to give a clear idea of the contexts of resilience and drought in my literature review (Chapter 2) to ensure that the reader has a solid knowledge of the phenomenon before reading the findings in Chapter 4.

3.6   ETHICAL CONSIDERATIONS

The greater projectøs ethical clearance from the University of Pretoria (reference number UP 16/11/02) also applied to my study as it fell within the greater project. As explained in Chapter 1 (see 1.1), I was not involved in the initial informed consent process. The greater project adhered to the ethical principles of informed consent by the participants and of parental/caregiver co-consent if participants were minors. The voluntary participants received a voucher for each activity completed. Permission to make audio- and video-recordings of each group activity was obtained before the start of the activities.

Activities took place in groups, which meant that there was limited anonymity and confidentiality. This problem was addressed by allowing the participants to make use of a pseudonym if they desired. When I reported on the data I was sure to use the name that the participant preferred (i.e. the pseudonym that the participant had chosen for the greater project or his/her real name). This ensured my loyalty to and respect for the groups and the experiences that they shared.

Ethical considerations played an important role in interaction with the research groups, as well as in my interpretation and reporting of the data. To ensure that I worked ethically and carried out ethical research, I maintained a sense of professionalism throughout the project. I approached the participants with the utmost respect as I was a guest in their community. During my engagement with the groups I made safety a priority and I endeavoured to minimise the potential risks (such as exhaustion and emotional turmoil) that could occur. I was respectful of the culture that I experienced by engaging in local greetings and being open to learning from cultural interactions. I also took great care to ensure that rapport was built and maintained at all times.

3.7 CONCLUSION

In this chapter I detailed the research methods used and motivated my choice of them. The methods proved to be suitable to the greater research project as well as in my personal research, as they facilitated meaningful findings. These findings will be reported on in the next chapter.

FINDINGS AND RECOMMENDATIONS

4.1   INTRODUCTION

Chapter 4 is organised according to two sections that will discuss the findings that answered the two sub-questions set in my research. The first sub-question was ‑What are the intrapersonal resources that support health and well- being in adolescents, in a context of drought?ǿ and the second sub-question was ‑What are the interpersonal resources that support health and well-being in adolescents in a context of drought?ǿ

Figure 4.1 gives a visual summary of the sections and related themes discussed in this chapter. This visual representation builds on Figure 2.1 in Chapter 2.
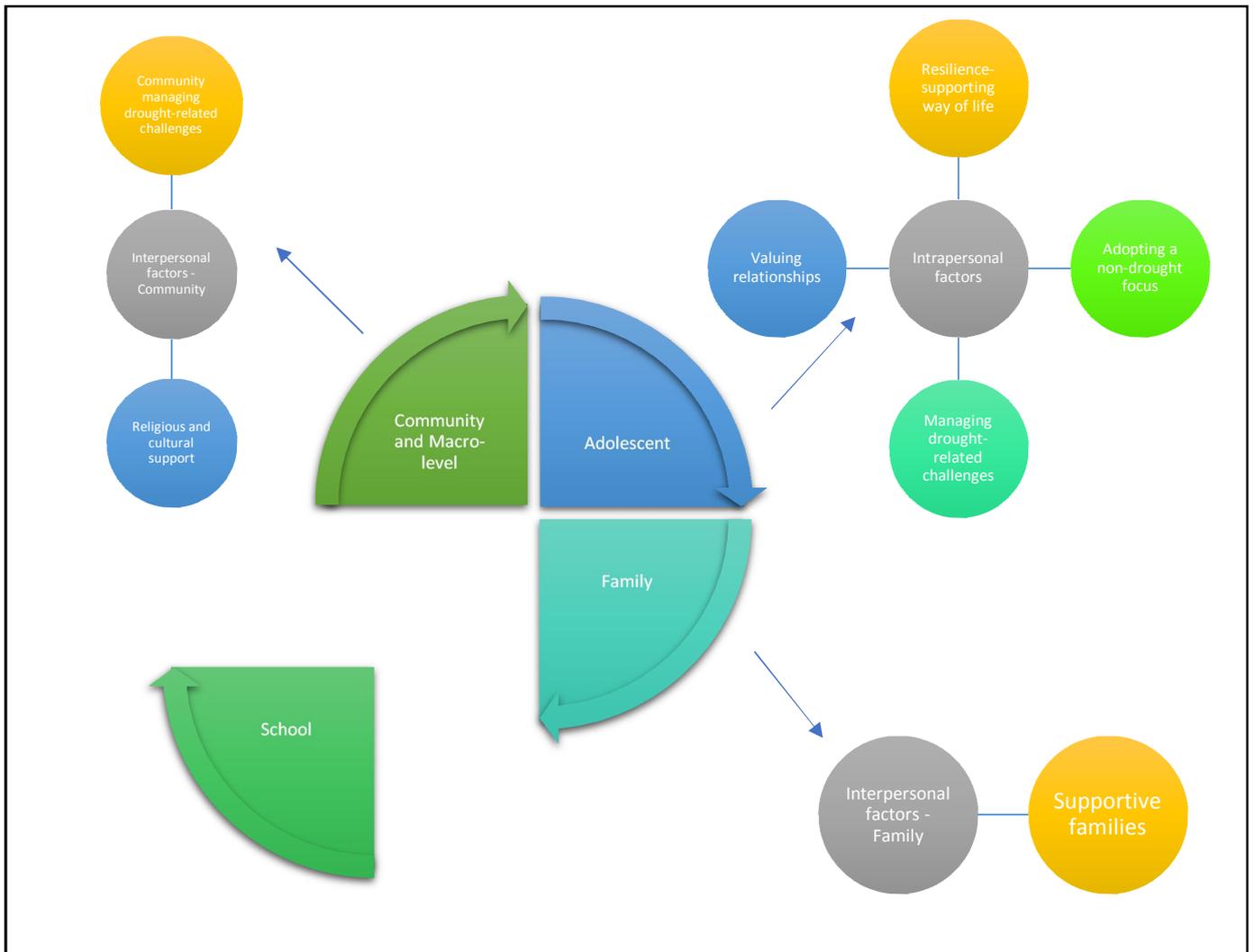
4.2   INTRAPERSONAL FACTORS

As shown in figure 4.1, I will report four themes that relate to intrapersonal factors which support adolescentsøhealth and well-being in the face of drought.

4.2.1 Theme 1: Resilience-supporting way of life

This theme includes the adolescent dimensions of having a positive outlook or mind set towards adversity, and of enacting altruism, resilience-supporting lifestyle choices or strategies that maintain an adolescentøs positivity. Theme 1 also includes being ÷future-orientatedø and looking towards enhancing the future of the adolescent.

4.2.1.1 Sub-theme 1: Constructive lifestyle choices

This sub-theme refers to any positive strategies or actions that adolescents implement and that help them overcome or cope well with drought. Almost all the adolescents (i.e. 22 out of the 25, including boys and girls) reported an issue that could be classified under the theme of lifestyle choices.

Many participants referred to exercising and eating healthy food. For example, Sithembiso (girl, Group 2) said: *÷I exercise and I practise my diet, I eat healthy food each and every day, because I want to keep my body healthy and strong. By eating healthy…and exercising during drought, I want to make sure that I don't faint even at school when the temperature is so high and there is no water.'* Similarly, Boka (boy, Group 3) drew a banana, apple and a pear (see Figure 4.2) and explained that the positive action of eating fruit was a way of keeping his body healthy: *÷I eat fruit every day, just, just to keep myself healthy'*.

Humour or comedy was also reported as a constructive lifestyle choice. For example, Immaculate (girl, Group 7) said: *÷Yes to keep my, my heart healthy umm…I, always uh sometimes I watch comedy to, just to laugh a little bit…just laugh because that comedy is all about. Laughter and all that smile.'*
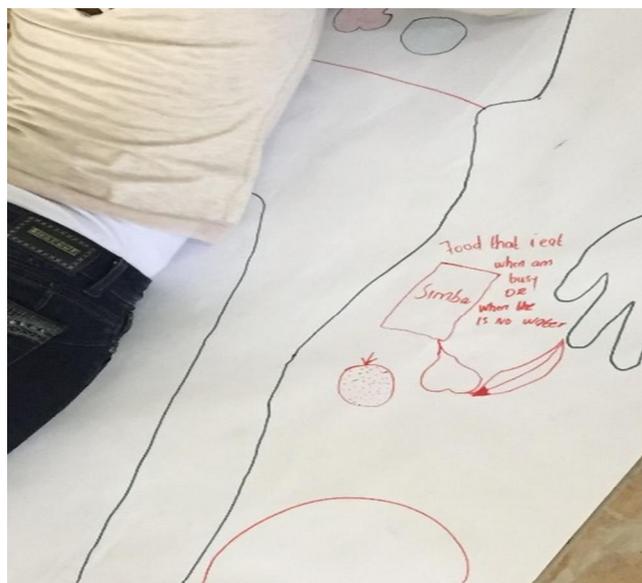
Figure 4.2: Boka's drawing of fruit

Other constructive lifestyle choices included religious acts of reading the Bible and praying to support their resilience. For example, Fission, an adolescent boy from Group 3 reported: *'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'*. Similarly, Junior (boy, Group 6) 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… and usually he does.'* Angel (girl, Group 7) drew a heart on her body map and said that to keep her mind healthy she reads her Bible because she is a Jehovah's Witness (see Figure 4.3).
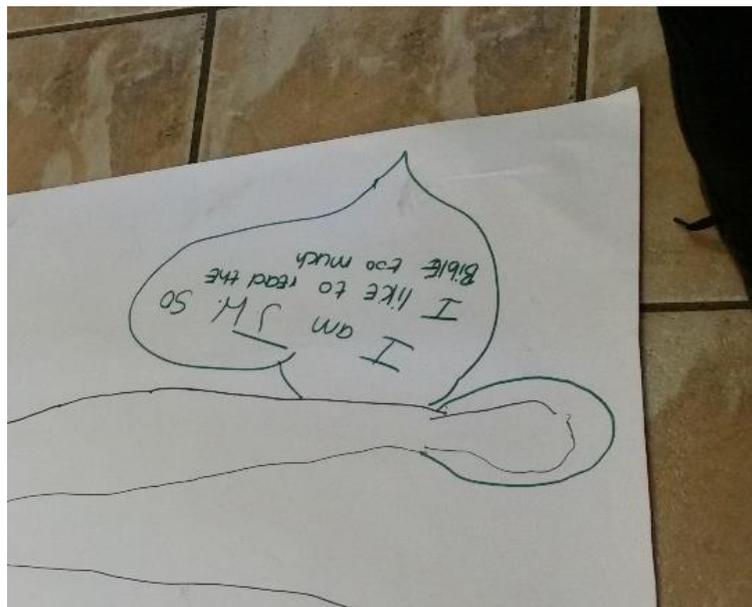
Figure 4.3: Angel's drawing of a heart with her explanation

What was evident from the South African literature, is the fact that resilience-supporting life choices of adolescents, such as humour and spirituality, were repeatedly reported (e.g. Kruger et al., 2016; Malindi & Theron, 2010; Pienaar et al., 2012; Theron & Hall, 2016). Likewise, in the international drought-specific literature, Dean and Stain (2007) noted that resilience-supporting lifestyle choices of humour and spirituality supported the resilience of families affected by drought in Australia. Although the current literature focused mainly on humour and spirituality, my study also noted healthy activities such as exercise or maintaining a healthy diet, and added these to what enables resilience.

4.2.1.2 Sub-theme 2: A positive outlook

'A positive outlook' refers to adolescents being generally positive in their thinking about their day-to-day lives, as well as maintaining a positive mind-set and making meaning of the adversity of drought. Most of the adolescents (i.e. 16 out of 25; boys and girls) reported a

positive outlook. This positive outlook mostly supported resilience because it helped the adolescents not to worry about drought. It also gave them a sense of staying power through the drought.

In many instances, the participants referred to activities that promoted a positive mindset. For example, Zar (boy, Group 2) explained that his resilience related to staying informed about the drought, which helped him to maintain a positive mindset. He said: *'I stay literate and more informed on how to handle the situation as a sign of staying positive, so I believe it is important to stay positive for us that we must not worry about the situation, because every situation is a passing obviously.'* Similarly, Njabulo (boy, Group 1) drew an arm with the words *'Stay positive' (see Figure 4.4) and he explained that 'Eh, what I'm drawn here and what I've write here is that you must stay positive, be true to yourself, staying negative is never a solution cause staying positive helps you to get through whatever situation you are facing.'*

Figure 4.4: Njabulo's writing about staying positive on his arm

This sub-theme agrees with the South African resilience literature that encapsulates the positivity of adolescents who show resilience in adversity (Collishaw et al., 2013; Ebersöhn, 2013; Mohangi et al., 2014). In accordance with my study, some of these earlier South African resilience studies included black adolescents living in rural areas (e.g. Mohangi et al., 2014). However, none of the previous studies were conducted in a context of drought, and therefore my study can be expected to make a contribution to resilience literature as it confirms that these well-known resilience enablers are useful in the face of drought too.

4.2.1.3 Sub-theme 3: Being helpful to others

The theme of ÷being helpful to othersø may be described as helping others and, in doing so, provides evidence of a positive lifestyle. In terms of this sub-theme, 11 out of the 25 adolescents (including boys and girls) reported on being helpful to others.

The aspect of being helpful to others was reported by participants mainly as helping others in terms of sharing food and water sources. The was also an awareness among the participants that the act of being helpful to others did not have to be a hugely profound action, but it could occur in more menial tasks. An example of this was given by a participant named Xolani (boy, Group 2) who stated, ÷*This is actually one of the ideas for helping out, by helping people have food since it's tough times and there is no food, plants are dying out. So, you can do something very small and very little as buying someone a meal to help them get through the day'*. Similarly, Thembi (girl, Group 6), drew a bubble on her body map, near her head (mind) (see Figure 4.5) and explained that to keep her mind positive she helps others during a drought. This also helps her to forget about the drought.
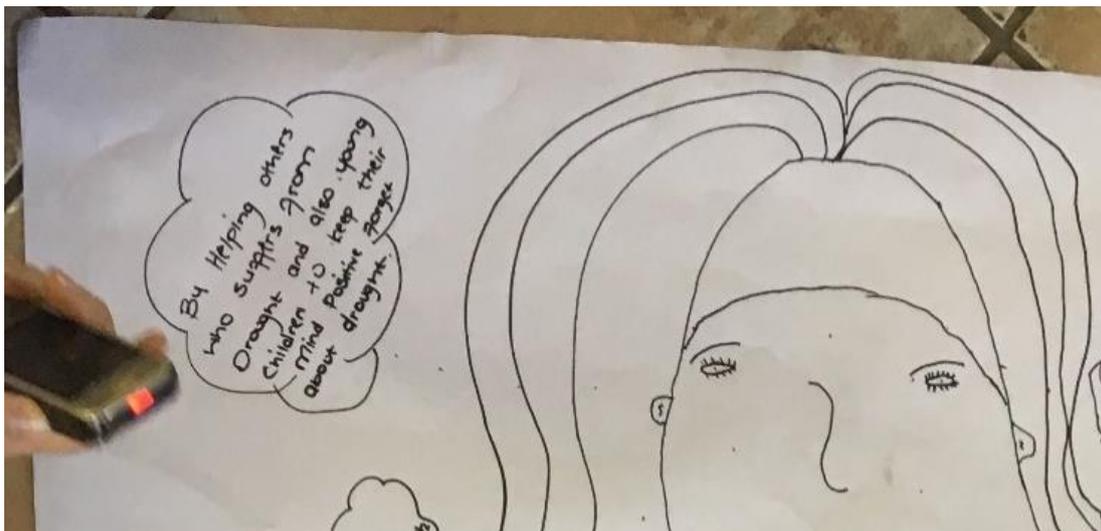
Figure 4.5: Thembi's speech bubble of her example of helping others

This theme aligns well with current resilience South African literature. The importance of being helpful or performing altruistic acts has been reported in the resilience literature, both locally and internationally (Mosavel et al., 2015; Ogina, 2012; Theron, 2017). However, none of these South African studies focused on the resilience of adolescents in the context of drought. I wonder though, how easy it would be for adolescents to be helpful to others if drought is prolonged and severe.

4.2.1.4 Sub-theme 4: Being positively future orientated

'Being positively future orientated' is defined as expressing future orientations; having dreams or plans for the future; planning self-development to facilitate future aims. For this theme, 9 participants out of 25 (including boys and girls) referred to being positively future orientated.

Many participants revealed that having a positive future orientation was a resource to draw on. They were self-determined and defined their own goals and dreams, as well as engaged in agency as they acknowledged that there is a future. This can be seen in an extract from a participant named Thato (girl, Group 6) who said, *'you must find uhh… your own desires in life and, and your own goals… Yes, that keeps me going actually in life uhh… to fulfil my dreams and so forth!'*

Gwanele (girl, Group 7) explained that she sings to God as a way of gaining help to acknowledge that she has a future and she has to make that a future of value: *'I sing to God that one day he will help me to realise that I have a future and I have what it take to make my future to count and I have what it take to get through difficult issues and difficult health in South Africa.'* Khanyisile (girl, Group 6) also drew the word 'hope' on her hand (see Figure 4.6) and explained that she has hope that everything in the future is going to be ok.

Figure 4.6: Khanyisile's drawing of the word 'hope'

Previous South African resilience literature reported on positivity towards a future orientation, as well has having aspirations (goals) for the future (Ebersöhn et al., 2015; Collishaw et al., 2013; Lethale & Pillay, 2013; Malindi & Machenjedze, 2012); therefore, this relates well with

the evidence gained in my study. This theme makes a contribution to the body of knowledge on resilience as none of the above literature focused on resilience in the context of drought.

4.2.2 THEME 2: ADOPTING A NON-DROUGHT FOCUS

This theme includes distracting the self by deliberately having a non-drought focus. This theme was reported by 13 of the 25 participants (both adolescent boys and girls). This theme differs from the previous theme (Theme 1) in that engagement in the activities (which were generally constructive and healthy) supported adolescents resilience because adolescents thought less about drought whilst engaged in the activities.

Figure 4.7: Thato's drawing of a cell phone

Thato (girl, Group 6) explained that using a cell phone to socialise through social media (see Figure 4.7) was a good way to meet people and this served as a distraction from the adversity (drought). Most of the participants reported that they socialised and/or engaged in exercise such as jogging and playing sports to forget about the drought. Precious (girl, Group1) explained that doing exercises as well as spending time with friends were ways through which she kept her mind off the worries of drought. She said: ‗*Well, jogging… uh some push-ups, sit-ups, you know keeping myself busy then I won't think about drought, worry much. And then friends, staying with friends, hanging out with friends, talking about different things other than drought, I can keep my mind off worries.'* Kido‗Eazy, (boy, Group 3) explained that sports and music kept his mind off adversity. He said: ‗*Playing a lot of sport, just, uhm, take my mind off a lot of things and listening to music helps. I think it would make it better.'* Angel (girl, Group 7) drew a speech bubble (see Figure 4.8) and explained that the act of cooking enabled her to have a non-drought focus ó especially when she was heartbroken about the drought ó as cooking distracted her and kept her mind healthy.
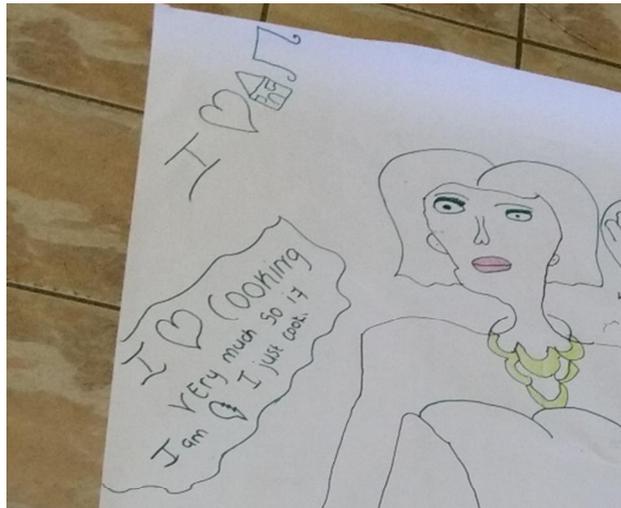
Figure 4.8: Drawing of Angel's speech bubble about cooking

Recreational activities have been noted as an important resource for resilience in the South African literature (Malindi, 2014; Malindi & Theron, 2011). The recreational activities in the mentioned literature were linked to a sense of well-being and happiness, rather than as a source of distraction ó as was seen in my study. Another difference between the cited South African literature and the evidence from my study is that the former does not refer to the adversity of drought, but rather to the adversity of youth living on the street.

4.2.3   THEME 3: MANAGING DROUGHT-RELATED CHALLENGES

This theme includes solution-focused initiatives such as self-regulation, including ways to use water sparingly during a drought. Managing drought-related challenges also includes new ways or initiatives that the adolescent may come up with to handle the adversity of drought.

4.2.3.1 Sub-theme 1: Self-regulation

Self-regulation includes change in personal water usage habits by the adolescents, as well as regulating their day-to-day actions during the adversity of drought. Fourteen out of 25 participants (adolescent boys and girls) reported on this theme.

A strong drive for self-regulation was reported by the participants. The change in personal water habits focused on using less water when performing hygiene maintenance, ensuring that the tap is closed after use and making use of cans and/or bottles to collect water for future use. An example of this change in personal water habits was explained by Precious (girl, Group 1), who said: *'...save water, uh when bathing use less water and when brushing your teeth, you open the tap then you close it, you don't keep it running, ja. And then research, you do more*

research about drought to know, to have more information what drought is so that you can have idea ja and…'. Similarly, Gwanele (girl, Group 7) said that people (including adolescents) have to regulate their day-to-day activity of collecting water to become more efficient and not to waste. She said: *'This thing represents the tank that they use that when there's now drought to tell people that they have to save water, maybe you have to take the bucket then fill it here. Everyone has to take the bucket and fill in there because, so that when there is a drought there's the water.'*

Njabulo (boy, Group 1) drew his body map and wrote the words *'save water'* on his leg (see Figure 4.9). He stated: *'So save water, saving water it means, it means that you'll be able, when a drought take place, you'll be able to have some water, cause you've saved water… don't waste water. Like… like bathing with uh five litres.'*
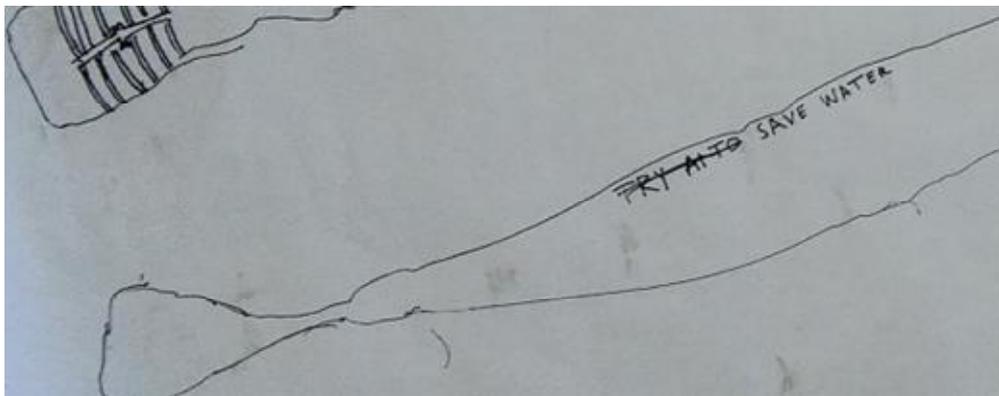
Figure 4.9: Njabulo's writing of 'Save Water'

This theme reported self-regulation in terms of self-control with the use of water. In the South African literature there is mention of self-regulation (e.g. Bhana et al., 2016; Hills et al., 2016; Malindi & Theron 2010; Mampane, 2014). However, none of the South African literature cited above related self-regulation to resilience in a drought-specific context.

4.2.3.2 Sub-theme 2: New ways to solve drought-related challenges
'New ways to solve drought-related challenges' includes solution-focused initiatives and the agency of the adolescents. Adolescents access knowledge to find new ways of solving drought-related problems. Adolescents are also willing to share this knowledge with others. This theme was reported by 12 of the 25 adolescent boys and girls.

Fission (boy, Group 3) reported on how they implemented new ways to solve drought-related challenges and how they (adolescents) wanted to share this: *'Yeah, and another thing we could do, is start programmes that teach people how to prevent, or how to cope with drought, and*

yeah. We could also, like, start programmes and teach people in our communities about drought and how to cope when there is a drought.' Similarly, Zodwa (girl, Group 1) explained that she will be able to cope with drought in a positive way, if she is realistic and finds more information or research on new solutions to drought. When the facilitator asked, ‑Where will you find solutions? Where do we find access to these solutions and research?ø, Zodwa replied: *'I can go to the internet, yes, there's sometimes mention of the new solutions the things that you can do when there is drought'.*

In many instances, the participants reported practically implemented solutions such as using various instruments (e.g. wheelbarrows) to collect and save water. An example of this is explained by Hakeem (boy, Group 7), who said: ‑*When I come back from school, I ... go to this place [to fetch water], like it was far, and I must study at that time, so I decided to take a wheelbarrow and put water so that we can feed our family with that water.'*

New ways of solving drought-related issues relate well to the current international resilience literature concerning drought (Logan & Ranzijn, n.d.; Hart et al., 2011). The study by Vetter (2009) also confirmed that adolescents were able to positively adapt within the context of drought. The South African literature in Chapter 2 reports on agency and positive adaptation, but not in the context of drought (Ebersöhn, 2013; Lethale & Pillay, 2013; Malindi & Theron, 2010). In other words, I believe it is important to keep asking adolescents about what supports their resilience.

4.2.4   THEME 4: VALUING PEER RELATIONSHIPS

This theme includes the maintenance and/or building of ‑relationships with peersø. Almost all the adolescent boys and girls (i.e. 23 out of 25) reported on this theme.

Valuing relationships was a strong theme as participants shared their perspectives. Good relationships with peers supported resilience by providing an environment where peers could communicate freely about various topics and this alleviated stress about the drought. Often, peer relationships were valued because they offered distraction and took adolescentsøattention off the drought (see 4.3). For example, Charlotte (girl, Group 3) said: *'Like we (Friends) just have some groups and chill out around talk about other things, good memories, like don't just focus on how this drought is affecting us a lot so I like that is how we support each other'.* Charlotteøs explanation was prompted by a question asked by the facilitator, namely: ‑What is the support that you get from your friends? What are the type of things that you will do?øIn addition to this Immaculate (girl, Group 7) said: ‑*We [Friends]talk about how we can be ok*

when there is a drought and how to be safe when there, when there is a drought. Usually it's about things like that'. Vusi (boy, Group 6) also explained that spending time with his friends
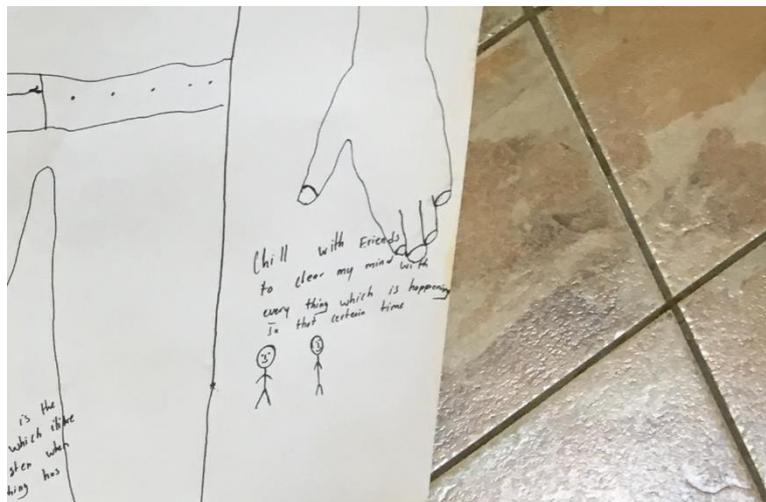
(peers) (*'Chilling'*) is what gave him support emotionally (õ*made his heart healthy*ö). This can be seen in his drawing of people and its explanation written on his body map (see Figure 4.10).

Figure 4.10: Vusi's drawing of peer support

Angel (girl, group 7) explained that to keep her heart healthy she has the support from her friends which alleviated the stress of drought: ÷*Yes to keep my, my heart healthy umm, I usually get support from my , friends and family'.* (See figure 4.11)
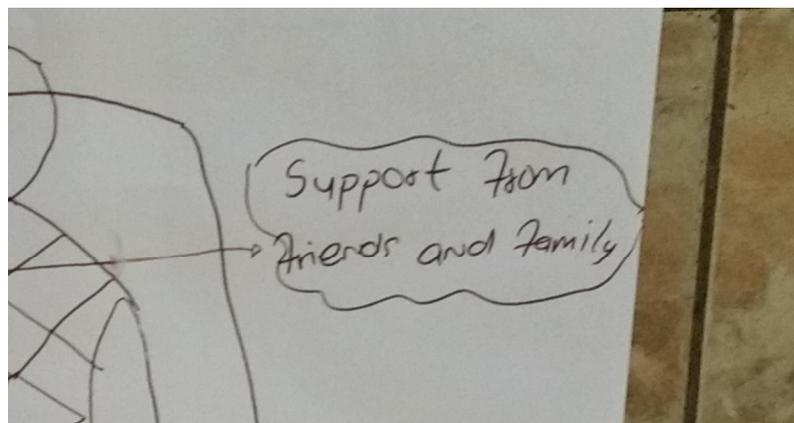
Figure 4.11: Angels drawing of a speech bubble stating her support from friends

In South African literature on resilience, Lethale and Pillay (2013), Ebersöhn and Bouwer (2013), Pienaar et al. (2012), Hills et al. (2016), and Ebersöhn et al. (2017) all report on the resilience-enabling value of the constructive relationships that adolescents have with peers. In a drought-specific context, international literature also noted the valuing of relationships as a

resource (Alston & Kent, 2004). I agree with the what the previous resilience researchers have said as I could see it in my data.

4.3   INTERPERSONAL FACTORS

As shown in Figure 4.1, I will report three themes that relate to interpersonal factors which support adolescentsøhealth and well-being in the face of drought. One of these is associated with family, one with community and one with the macro level (Spirituality).

4.3.1   Family

4.3.1.1 Theme 1: Supportive families

This theme includes emotionally supportive parenting, encouragement and support from family members (parents and other family members), as well as family members passing on values such as optimism and knowledge of right and wrong that they have used in times of adversity. Present members teach them about the beliefs that the family upholds. This theme was reported by 19 of the 25 adolescent boys and girls.

Participants referred to family members as being supportive role models in terms of understanding adversity and supporting adolescents to know the difference between right and wrong and respecting the difference. For example, Simpiwe (girl, Group 1) explained that her dad was the family member who taught her the difference between right and wrong. She said: *'Well actually, my dad is my role model. Actually, he helps me with a lot of stuff, tells me what's wrong, what's right. So, which that is a good thing.'* Similarly, Thato (girl, Group 6) wrote the words ÷family support' on her body map with a drawing of a heart (see Figure 4.11) and explained that she relied on family support mainly from her mother, during the adversity of drought.

Figure 4.12: Thato's drawing of a heart with the words 'family support'

Furthermore, it was seen that support did not only come from parents but also from extended family. Gwanele (girl, Group 7), referred to the benefit of her grandparents passing on resilience-enabling beliefs when she said: *'I have two parents but the people that influence me the most is my grandparents. They help me to understand that we have to believe, you have to have faith in life no matter what difficulties and struggles in your heart you face, you have to believe that God and all the people that surround you and all the people that support you, you going to get through this'.* In addition, Fission (boy, Group 3) stated that his family was very supportive during the stress of drought. He said: *My family is very supportive, like, even though this are never going to get better, like, they give you that hope. They give you that hope. They make you believe that something is gonna come up. Something is going to happen and yeah. They believe in making us as their children stronger than they are, during that time.*

Supportive family relationships are a consistent resource that facilitates resilience, as stated in the South African literature, therefore this theme of supportive families aligns well with existing knowledge (e.g. Bhana et al., 2016; Ebersöhn et al., 2017). Similarly, adolescents in previously published studies specifically noted their valuing of relationships with role models including family role models (Mampane, 2014). One international study by Alston and Kent (2004) reported that family support eliminated feelings of isolation in the context of drought. The difference between earlier South African literature and my study was yet again how family support was a resource ó but not within the context of drought. Therefore, my study has tentatively contributed to the South African resilience literature by confirming that family support ó which is commonly reported in the context of other risks (such as chronic illness or disadvantage) ó is also a resilience enabler in a drought-specific context.

4.4.1 Community and macro-level systems

4.4.1.1 Theme 1: Spiritual support

Similar to what Brittian et al. (2013) reported, in my study spiritual support became evident from references to Christianity, African religion, as well as ancestral beliefs and includes faith-based activities that facilitate ideals such as strength and hope or act as a support enabler. This theme was reported by 15 out of the 25 adolescent boys and girls.

This type of support related to how adolescents maintained relationships with religious figures as well as ancestors to support them in the adversity of drought. In many instances, the participants referred to Christianity and going to church as the main religious act that provided support against adversity. For example, Gwanele (girl, Group 5) explained that their own

resilience and the resilience of others related to going to church and discussing their emotions as well as their positioning during the adversity of drought. She said, *‟People when they are suffering or they are hurt they eventually go to church, praying for the thing or telling God*
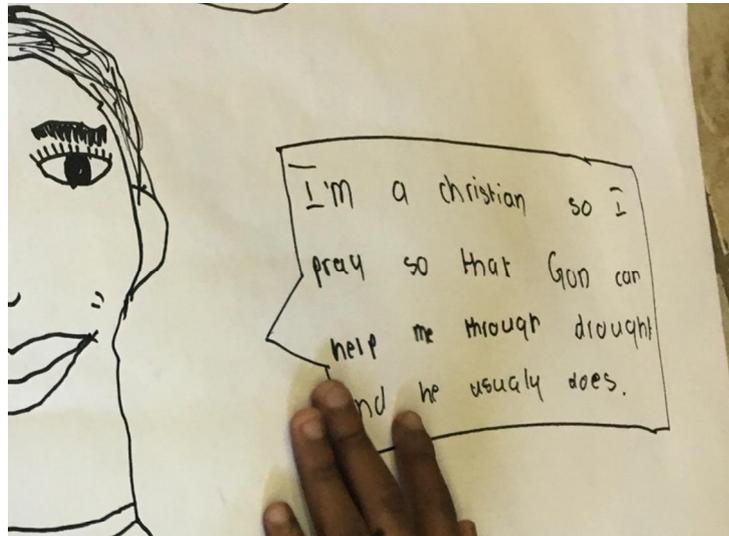
about how they are feeling or how the feeling affects them'. Similarly, Junior (boy, Group 6) drew a speech bubble on his body map (see Figure 4.12) and explained that praying to God and being a Christian helps him through drought.

Figure 4.13: Juniors's writing of being a Christian on his body map

Ancestors were also noted as a resilience enabler for the adolescents in my study. These ancestors provided the adolescents with hope and strength to get through adversity. An example of this was mentioned by Fission (boy, Group 3) who said: *‟Our ancestors will always look after us, so that, somehow, gives us strength and gives us hope and all those things.ø*

Spirituality has been noted as an important resource for resilience in the South African literature (e.g. Collishaw et al., 2013; Hills et al., 2016; Mohangi et al., 2011; Oppong Asante, 2015; Theron et al., 2011; Theron & Malindi, 2010), and this supports the findings of this theme and its evidence. As in my study, adolescents in the study by Hills et al. (2016) also referred to religious and cultural support as a resilience-enabling source during adversity. The literature by Rukema and Simelane (2013), as well as my own study, makes particular reference to ancestors as being a positive resilience resource. However, none of the studies mentioned above were conducted in a context of drought.

4.4.1.2 Theme 2: Community management of drought-related challenges

This theme comprises any communal activity that facilitates access to water, which might solve or alleviate many of the challenges facing the adolescent, brought on by drought. It also involves collectively seeking solutions, which includes engaging the community and sharing the information and responsibilities communally. This theme was reported by four out of the five groups[1] that had adolescents in them.

This included activities in which the community came together to learn how to manage drought. The particular activities that were reported involved informing less knowledgeable adolescents in the community about drought, as well as people coming together and helping on another by bringing water for their use. Immaculate, the spokesperson in Group 7 explained that the figurines in the sand-tray activity supported adolescents (see Figure 4.13), because they got to participate in their community and they received help from community members with the collection of water. She said: *'These things around here* (figurines depicted in Figure 4.13) *they help us a lot because they all help us as, as young people a lot because we get to participate in some of this thing, in some of these activities and we get helped by, from waters that some other people fetch for us to drink.'*
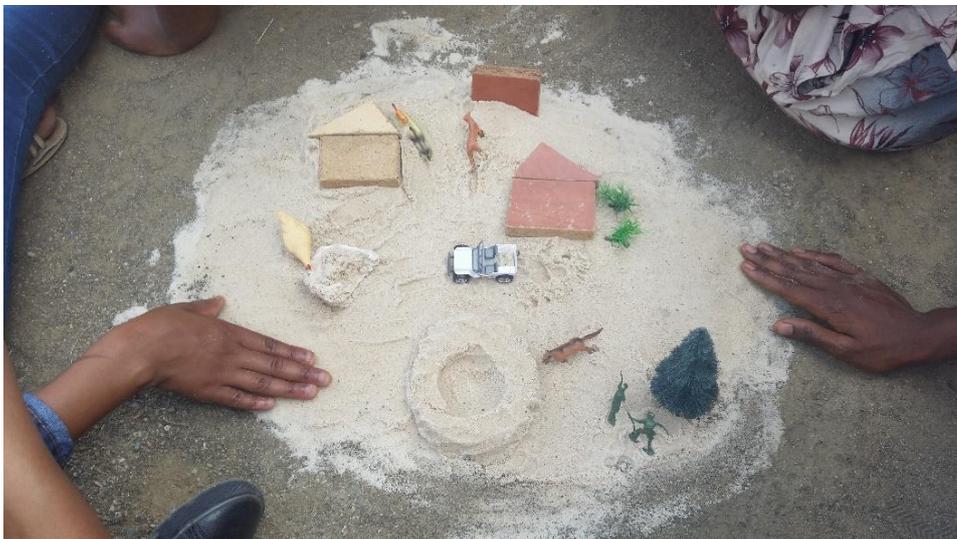
Figure 4.14: Group 7 sand-tray activity

Collectively seeking solutions also related to how community members came together and embraced a sense of connectedness to address adversity. In many instances, this connectedness mainly included sharing knowledge about drought, staying united to form more collective

---

[1] As explained in Chapter 3 –sand-trayø activities were explained by a spoke person and so I will no longer refer to participants in this theme, but to groupøs spokesperson in the evidence, and to the number of groups for data saturation.

solutions and facing the drought together. An example of the above is reported by Xolani, the spokesperson of Group 2, who said: *'We move together as a community because we know now what we are facing and in moving together we are protecting and preserving what we already have. We make sure that this does not affect or hinder what we are trying to build or have.'* The spokesperson for Group 1, Tshiamo, said: *'Be useful, be useful in your community you see when you have a plan or solution to help eh…overcome a drought tell everyone so that they can use it and work together. We work together to find solution or work together to get something useful to overcome drought.'*

The evidence in my study was similar to that in South African and international resilience literature, which identified community togetherness as well as the concept of ‑flocking‑ø as a resilience enabler (Carnie et al., 2011; Ebersöhn, 2012; 2014; Hart et al., 2011; Meyiwa et al., 2014; Mosavel et al., 2015). Furthermore, the international literature referred to above reported community cohesion in the context of the adversity of drought specifically. Adolescents worked together in their communities to find solutions for dealing with drought (Carnie et al., 2011; Hart et al., 2011; Meyiwa et al., 2014).

4.5   CONCLUSION

The Social Ecology of Resilience Theory (Ungar, 2011) states that individuals may rely on resources from the environment more so than from intrapersonal enabling resources. It is interesting therefore that my study shows that, in comparing themes, individuals drew on intrapersonal resources more than on interpersonal resources. I am drawing this conclusion based on the number of intrapersonal-focused themes, versus the interpersonal themes. A reason for this may be the method of data collection that was used (Theron, 2016). The one (of two methods) that produced the most data was body mapping, which reflected a focus on the individual more so than on the environment.

Another interesting issue related to the silence around school-based enablers of resilience. Within the South African literature, a major resource for ensuring resilience among children and adolescents is school-based support (e.g., Mampane, 2014; Ebersöhn & Ferreira, 2011; Theron, 2016). However, this theme did not emerge from the evidence on the activities in my study. Participants made reference to education as being important, but it was not definitive whether education, schools or teachers were seen as an interpersonal resilience-enabling resource. Possible reasons for this could be that the questions asked were not school-focused enough. Furthermore, schools and teachers were maybe not seen as an accessible resource, due

to poor peer-teacher relationships or a lack of accessibility where teachers did not mirror constant support ó which has been noted as a resilience resource.

I also found it interesting that adolescents did not report on political macro-level resources, such as grants or drought-relief policies (see 2.5.2). It is possible that this is because the macro-system is not as obvious to adolescents as everyday support in their microsystem (van Breda & Theron, 2018). I believe that what my data adds points to the importance of not assuming that existing resilience studies can fully explain adolescent resilience. In the next chapter, I reflect on the usefulness of the findings I reported here in chapter 4 for educational psychologists.

5.1   INTRODUCTION

In this chapter I will summarise how the investigation into adolescentsø resilience during the phenomenon of drought and related themes (see Chapter 4) provided answers to the main research question. Chapter 5 also discusses the limitations the methodology may have created. Recommendations will be explored to enhance further and future research, especially in terms of the contribution that my findings make for educational psychologists.

5.2   RESEARCH QUESTIONS REVISITED

As discussed in 1.4.1, the primary research question was: ÷What resources do adolescents in a drought-challenged context identify as important to their health and well-being?ø

1.4.2   Sub-questions

1) What are the intrapersonal resources that support the health and well-being of adolescents in the drought-challenged context of Leandra, Mpumalanga?

2) What are the interpersonal resources that support the health and well-being of adolescents in the drought-challenged context of Leandra, Mpumalanga?

3) How might the answers to sub-questions 1 and 2 inform educational psychologistsø understanding of resilience in a drought-challenged context?

Figure 5.1 provides a visual summary of the answers to the sub-questions 1 and 2. Intrapersonal resources that supported the health and well-being of adolescents living in a drought-challenged context included a resilience-supporting way of life that encapsulates constructive lifestyle choices, a positive outlook, being helpful to others, and being positively future orientated. The intrapersonal resources that supported the health and well-being of adolescents in the drought-challenged context also included adopting a non-drought focus and managing drought-related challenges. The latter comprised self-regulation, as well as new ways to solve drought-related challenges. Lastly, valuing peer relationships was also an intrapersonal resource that supported the health and well-being of adolescents living in a drought-challenged context. The interpersonal resources that supported the health and well-being of these adolescents included family members who provide supportive interactions. In addition, at the community and macro-level, spiritual support as well as community management of drought-

related challenges supported the health and well-being of adolescents living in a drought-challenged context. Taken together, these intrapersonal and interpersonal resources which the adolescents in my study reported , give educational psychologists insight into what can potentially support the health and well-being of adolescents challenged by drought.

Insights into the resilience of adolescents who are challenged by drought

Sub-question 1: What are the intrapersonal resources that support the health and well-being of adolescents in the drought-challenged context of Leandra, Mpumalanga?

- **Resilience-supporting way of life**
- Constructive lifestyle choices
- A positive outlook
- Being helpful to others
- Being positively future orientated
- **Adopting a non-drought focus**
- **Managing drought-related challenges**
- Self-regulation
- New ways to solve drought-related challenges
- **Valuing peer relationships**

Sub-question 2: What are the interpersonal resources that support the health and well-being of adolescents in the drought-challenged context of Leandra, Mpumalanga?'

- FAMILY
- **Supportive families**
- COMMUNITY AND MACRO-LEVEL
- **Religious and cultural support**
- **Community management of drought-related challenges**

Community and Macro-level

Adolescent

Family

Figure 5.1: Visual summary of themes of my study as they relate to the sub-questions 1 and 2

Toland and Carrigan (2011) suggest that resilience theory should inform the main functions of an educational psychologist. In addition, Theron and Donald (2013) call for a consideration of specific contexts and ask whether the processes of resilience draw on identical, similar, or different protective resources across specific contexts. As discussed in Chapter 1, drought is a

specific risk context and an ever-increasing phenomenon in South Africa. It is therefore important to understand what could support adolescent resilience in drought-challenged contexts. An educational psychologist can draw on the intrapersonal and interpersonal resources found in my study (see Figure 5.1) to tentatively create context-specific insights to facilitate, understand and promote resilience in adolescents.

My results suggest that educational psychologists should consider resources at the level of the adolescent, family and community. Taking this as a starting point should help educational psychologists to explore the resources that support adolescents and those that do not. By better understanding the resources that are important, the educational psychologist gets the opportunity to be supportive. A positive, supportive relationship between the educational psychologist and vulnerable adolescents is considered a vital resource in the protection of adolescents against the negative effects of adversity (Noltemeyer & Bush, 2013). Importantly, insight into the intrapersonal and interpersonal resources summarised in Figure 5.1 has the potential to support educational psychologists to understand that the resources that adolescents deem as important to their health and well-being are complex (they are not either intra- or interpersonal, but both). This fits in with the Social Ecology of Resilience Theory which suggests that adolescent resilience is complex because it draws on both environment and person (Ungar, 2015; 2016).

As explained by other resilience researchers (Hlatshwayo & Vally, 2014; Kumpulainen et al., 2016), the ecosystemic themes summarised in Figure 5.1 inform an educational psychologist that the use of context-specific insights is vital in developing an individual's capacity for resilience. For example, schools did not emerge as a saturated theme in my findings. Participants made reference to education as being important, but it was not definitive whether education, schools or teachers were seen as an interpersonal resilience-enabling resource. The South African resilience literature usually forefronts the role of schools and teachers (Ebersöhn & Ferreira, 2011; Jefferis & Theron, 2017; Lethale & Pillay, 2013; Malindi & Machenjedze, 2012; Mampane, 2014; Mosavel et al., 2015; Theron, 2016). Educational psychologists can learn from this absence of reference to schools in my study that if they want to enable resilience, they need to learn from adolescents, their families as well as the community (including schools) they intend to serve. They should not make assumptions based on the literature studied (Kumpulainen et al., 2016). Additionally, educational psychologists could learn about the schooling system, as well as about the areas of growth and strengths of the schooling system to explore why there may be an absence of reference to schools in my study. In other words,

insight into what was absent from the intrapersonal and interpersonal resources summarised in Figure 5.1 has the potential to support educational psychologists to further understand the complexity of adolescentsøresilience. Part of this complexity of adolescentsøresilience is how a specific context shapes what supports resilience, thereby amplifying Ungarøs (2011; 2015) argument, namely that resilience is context specific.

Seeing that educational psychologists are scarce in a resource-constrained community such as Leandra, Mpumalanga, our role as educational psychologists is to promote resilience in families, schools and community systems in an effort to increase accessible and protective community-based resources (Pillay, 2012; Theron & Donald, 2013). My findings showed that adolescents relied more on intrapersonal resources than on interpersonal resources, and they therefore emphasise the role of the educational psychologist to balance out this unequal ratio. The adolescentsø tendency to turn to intrapersonal rather than interpersonal resources (as summarised in Figure 5.1) suggests that educational psychologists should not assume that there will be sufficient ecosystemic support for adolescents to use as resources in a specific (negative) context. This insight has the potential to help educational psychologists understand that supporting adolescent resilience in the context of drought involves not only the empowerment of supportive systems, but also the adaptation of and/or augmentations of systemic support to comply with the changed needs of the community (Hart et al., 2011).

In conclusion, the insights summarised in Figure 5.1, support the educational psychologist to respect the context-specific and complex nature of adolescent resilience to drought. These insights should also encourage the educational psychologist to champion adolescent resilience, by learning from adolescents about what already enables/sustains their health and well-being. As well as being sensitive to what is absent from adolescent explanations of resilience and acting to address such absences.

5.3 LIMITATIONS OF THIS STUDY

One limitation that I experienced was that I had no control over how many adolescents would participate in the research process as I was a part of the greater project and therefore did not have a direct say in the recruitment of participants. Therefore, it was of great concern to me that I might not be able to reach an adequate number of adolescents to gather sufficient data. I later discovered when reading through the data that this was not a real problem and I had sufficient data to code. For me, an additional limitation involved the fact that each facilitator engaged with his/her own group, and I therefore had no control over the quality of data

generated in the other groups. I also had no control over how the facilitators probed for a deeper understanding or whether they probed at all.

A further limitation was that I had no say in the selection of the methods that would be used to collect data, as those of the greater project had already been established. Also, one of the two visual methods that generated data to be included in my research ó body mapping ó spoke to a more individual focus (Theron, 2016). Hence, method could possibly explain the unequal ratio between interpersonal and intrapersonal evidence that emerged in Chapter 4.

The fact that I worked alongside but separate from the greater project resulted in a disconnection between me and the gatekeeper to the community (Creswell, 2014; Theron, 2016). My ÷disconnectedø arrival in Leandra and proceeding with the research, made me feel as if I was being slightly disrespectful to the community.

Although the participants were living in a community that had officially been declared a disaster zone due to drought (Evans, 2015), some participants reported that they had not personally experienced drought. Therefore, the information they shared was more based on hearsay than personal experience, whilst qualitative research based on a phenomenological paradigm is supposed to use mainly personal experience (Creswell, 2014; Lin, 2013; Shi, 2011). It is beyond the scope of my study to theorise why young people believed they had not personally experienced drought. Their responses were possibly related to the fact that the project did not ask young people to define drought. Thus, they may have understood drought to be when there is NO water, rather than when there is limited water. A further limitation that I experienced during my study was that the adolescents often wanted to explore what ÷should be done about droughtø rather than ÷what measures are taken during droughtø At the time, I realised that the adolescents may have wanted to explore that avenue more, but it was not part of the research focus or questioning. I felt that this constrained my positive role as an educational psychologist and my rapport with the adolescents (Noltemeyer & Bush, 2013), as they may have felt that their answers were not correct because there was continued probing for what was done during drought.

A personal limitation was that I had to separate my personal life from the study in terms of feeling the guilt of privilege. For example, I tended to feel guilty because I had running water, I was not experiencing drought, I was not from a resource-constrained area and I had never experienced living with constrained resources. I was fully aware of the challenge of personal interference as this could have limited my listening skills.

5.4   REFLEXIVITY

Reflexivity is defined as the continuous process of self-reflection by me as researcher to improve transparency in relation to others. This self-reflection generates a transparency and awareness about my actions, feelings and perceptions during the research process as well as my analysis of the data. Sensitivity to reflexivity increases the credibility of the findings (Darawsheh & Stanley, 2014; Elliott, 2018).

I gained experience on and mastered a research method that involved interacting with participants and not doing a secondary data analysis as was experienced in my honours year. A personal reflection is that my research extended and exposed me to a situation I may not have had an opportunity to be exposed to before. It broadened my view on adolescents living in a resource-constrained community, experiencing drought and making use of different resources to support their resilience. This personal exposure inspired in me a deeper empathy for adolescents living in this situation. Working in a community with which I had not been familiar highlighted the importance of showing respect when working with a different race and culture, especially because I am a white, privileged female South African. As an educational psychologist in training, I was able to experience first-hand how important it is to understand a person's context. Each participant lived in a different context that affected his/her unique story, and my encounter with them afforded me the opportunity to acknowledge the uniqueness of each individual.

The findings of my study became really meaningful because they represented the voices of a marginalised group of adolescents whose evidence came to life. The evidence that I uncovered brought to life the literature read on resilience, as many of my findings reflected and agreed with what other studies have stated. The findings caused some concern, as they were not an exact reflection of the abundance of resilience literature I had encountered and that suggested that individuals draw mostly on the environment (Ungar, 2011; 2015). Furthermore, the importance of social ecology when it comes to resilience was understated by the adolescents and instead, they emphasised intrapersonal resources. The findings on which I reported as an educational psychologist in training gave me a sense of hope for adolescents who indicated that they experienced resilience in times of adversity. This sense of hope resulted from the fact that adolescents were mainly relying on themselves for positive adaption.

If I were to repeat my study, I would keep the methodology the same. As a research group we were supported by educational psychologists with many years of experience. This created a

safety net around us and ensured that no harm was done to the participants. I would keep working in a group of researchers, as this gave me the benefit of shared reflection on the guilt of privilege and on whether I was the only one experiencing the anxieties of being a research facilitator (it was my first time working with participants in their natural setting) (Lin, 2013). Working in a group also gave me the opportunity to be accountable to colleagues, thus limiting any biased opinions during the research process. The only aspect I would change, would be to increase the level of my exposure to the ethical clearance process, and to connect with the community more intimately, for example, by meeting the gatekeeper. I do realise though that I was part of a large group of researchers and that organising logistics to be more involved, created its own limitations.

I spent time reflecting on the assumptions that I held at the beginning of my study. In some instances (see Table 5.1), my assumptions were no longer credible or valid.

Table 5.1: Comparing the credibility of my assumptions

Initial assumption	Reflection at the end of my study
I assumed that although adolescents experience hardship, they were still able to be resilient. However, in an area with limited resources there may have been limited health-specific resources to enable resilience.	My findings showed that adolescents were able to engage with resilience, even despite adversity. This assumption did not change, as my findings revealed that adolescents engaged with resilience despite hardship. However, I realised that participants made limited references to health-specific resources in the data that enabled resilience and they rather referred to intrapersonal well-being resources. In future, I would be less likely to assume that young people in a resource-constrained community have access to health resources.
Adolescents living in Leandra, Mpumalanga, may draw on multiple resources to enable resilience, be they extrinsic or intrinsic.	This assumption did not change as it agreed with my findings in Chapter 4.

Resilient individuals in Leandra, Mpumalanga might be better at positively adapting to adversity, as they are able to use the resources within their community and cultural context to improve their response to hardship.	Adolescents were definitely able to use resources to positively adapt; yet there was a stronger presence of intrapersonal resources than of community and cultural resources. This changed my assumption, as individuals (adolescents) were better at positively adapting when they drew on intrapersonal resources to improve their response to hardship. This might be because Leandra is a resource-poor community.
In the area around Leandra, Mpumalanga, a deep cultural influence may run like a thread throughout the resilience process.	This assumption did not change, as spiritual support was seen as a contributing theme and reported on. Cultural influences contributed positively to participantsø response to drought. As an educational psychologist, I need to be cognisant of the importance of culture when championing resilience in adolescents.

5.5 RECOMMENDATIONS

5.5.1 Recommendations relating to future research

The evidence in my study revealed many resources that enable resilience. I would recommend follow-up studies in the following areas:

- A follow-up study could be organised to focus only on adolescents and to ensure that there is an adequate number of them to gain sufficient data. I would recommend a follow-up study where researchers who know that older adolescents may be dominant in sharing their views will encourage the younger participants to express their experiences more freely. A more individualised activity could be introduced to give the adolescents an opportunity to have their voices heard without being dominated or interrupted.

- Another follow-up study could be done where researchers reflect about and are sensitive to the methods that are used to generate data (Theron, 2016). The methods of data collection should elicit responses regarding intrapersonal as well as interpersonal

resources. This means that researchers should ask the same resilience-focused questions, but to different groups of adolescents experiencing similar risks and with similar demographics. A variety of methods could be asked to see which method elicits which resources.

- I would recommend a future study that focuses on both õwhat should be done in times of drought?ö and õwhat occurs in drought times?ö. This would constitute an interesting study and gather data for family, community, service providers, educational psychologists as well as schools to use in their support of adolescents who experience drought.

5.5.2 Recommendations for Educational Psychologists

Seeing that drought is an increasingly common and threatening phenomenon in many parts of South Africa, local educational psychologists will benefit from this study (Araujo et al., 2016). Relevant literature states that educational psychologists play a crucial role in the positive adjustment of individuals whose development/outcomes are threatened by risk (Theron & Donald, 2013). Therefore, the findings of this study should be incorporated in the support programmes that educational psychologists create for adolescents threatened by risk, specifically drought. Awareness of the interpersonal and intrapersonal resources on which adolescents draw in times of drought will assist educational psychologist in their assessment, therapy and therapeutic alliance with adolescents.

Responsive and contextually relevant interventions and support by educational psychologists could develop an individualøs capacity for resilience (Hlatshwayo & Vally, 2014). However, if educational psychologists work with adolescents in a drought-challenged context that is very different from Leandra (e.g., an urban, affluent space like Cape Town), then they need to be careful not to assume that my findings apply to their client. In this regard, educational psychologists could explore various methods for use in practice to gain from adolescents the relevant information (themes) about their resilience to drought. These methods would be important in understanding the process of resilience in the context of drought.

5.6 CONCLUSION

My study gave me a deeper insight into adolescent resilience in times of drought and allowed me to make inferences about the role that an educational psychologist could play in assisting the adolescent client who is challenged by drought. The responses of the participants represented not only significant information, but also suggested that educational psychologists

can prompt new understandings when working with adolescents. An adolescent boy summed up the educational psychologist's role when asked how we as researchers played a role in engaging with their experiences of drought: *'For like example, today's lesson [session] was more useful to me, because I did understand what drought is and why it is happening and how it's take time and do those things, and now I think, when drought come, I will just simply know how to do things better than I used to do before'.* Enabling adolescents to 'do things better than before' is a pathway of resilience.

Bernard Williams a prominent philosopher said, 'Man never made any material as resilient as the human spirit' Transformation and change are often required from us as educational psychologists to simultaneously reflect on adversity and on the tenacity of the human spirit. Our role as educational psychologists is to instil a deeper understanding not only of ourselves but to facilitate life skills and knowledge that will ultimately support adolescents through adversity. By being involved in the above transformative progress, individuals become aware and reflect on the intrapersonal and interpersonal resources that they are able to draw on, and this enables them to engage with resilience and *'just simply [to] know how to do things better than …[they] used to do before'.*

6. REFERENCE LIST

Adlem, A. (2017). The psycho-social impact of sexual abuse on adolescents: Findings from a narrative sand play process. *Child Abuse Research in South Africa, 18*(2), 1-20.

Afifi, T. O., & MacMillan, H. L. (2011). Resilience following child maltreatment: A review of protective factors. *The Canadian Journal of Psychiatry*, *56*(5), 266-272.

Alston, M., & Kent, J. (2004). *Social Impacts of Drought: A report to NSW Agriculture*. Wagga Wagga, Australia: Centre for Rural Social Research.

Aranguren, M. (2017). Reconstructing the social constructionist view of emotions: From language to culture, including nonhuman culture. *Journal for the Theory of Social Behaviour, 47*(2), 244-260.

Araujo, J., Abiodun, B., & Crespo, O. (2016). Impacts of drought on grape yields in western Cape, South Africa. *Theoretical and Applied Climatology, 123*(1-2), 117-130. doi:10.1007/s00704-014-1336-3

Babugura, A. (2010). *Gender and climate change: A South African case study*. Cape Town: Heinrich Böll Foundation, Southern Africa.

Barnes, H. (2015). Ancestors, rain spirits and reconciliation: Evoking healing through ritual and culture. *South African Theatre Journal, 28*(1), 29-42.

Bhana, A., Mellins, C. A., Small, L., Nestadt, D. F., Leu, C. S., Petersen, I., & McKay, M. (2016). Resilience in perinatal HIV+ adolescents in South Africa. *Aids Care, 28*(2), 49-59.

Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking: A tool to enhance trustworthiness or merely a nod to validation? *Qualitative Health Research, 26*(13), 1802-1811. doi:10.1177/1049732316654870

Bloomberg, L. D., & Volpe, M. (2012). *Completing your qualitative dissertation: A road map from beginning to end*. SAGE.

Brooks-Gunn, J., & Duncan, G. J. (1997). The effects of poverty on children. *The Future of Children*, *7*(2), 55-71. doi: 10.2307/1602387

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.

Brittian, A. S., Lewin, N., & Norris, S. A. (2013). õYou must know where you come from:ö South African youthsø perception of religion in time of social change. *Journal of Adolescents Research, 28*(6), 642-663. doi: 10.1177/0743558413480834

Buthelezi, T., Alexander, D., & Seabi, J. (2009). Adolescentsø perceived career challenges and needs in a disadvantaged context in South Africa from a social cognitive career theoretical perspective. *South African Journal of Higher Education, 23*(3), 505-520.

Carmichael, K., Echols, K., & Warren, G. (2016). Using sandplay in couples counseling. *The Family Journal, 5*(1), 32-36. doi:10.1177/1066480797051004

Carnie, T.-L., Berry, H. L., Blinkhorn, S. A., & Hart, C. R. (2011). In their own words: Young people's mental health in drought-affected rural and remote NSW. *The Australian Journal of Rural Health*, *19*, 244-248. doi: 10.1111/j.1440-1584.2011. 01224.x

Carver, C. S., Weintraub, J. K., & Scheier, M. F. (1989). Assessing coping strategies: A theoretical based approach. *Journal of Personality and Social Psychology, 56*(2), 267-283.

Chambers, R. (2012). Sharing and co-generating knowledges: Reflections on experiences with PRA and CLTS. *IDS Bulletin*, *43*(3), 71-87.

Choe, D. E., Zimmerman, M. A., & Devnarain, B. (2012). Youth violence in South Africa: Exposure, attitudes, and resilience in Zulu adolescents. *Violence and Victims, 27*(2), 166-181. doi:10.1891/0886-6708.27.2.166

Collishaw, S., Gardner, F., Aber, J. L., & Cluver, L. (2015). Predictors of mental health resilience in children who have been parentally bereaved by Aids in urban South Africa. *Journal of Abnormal Child Psychology,44*(4), 1-12. doi:10.1007/s10802-015-0068-x

Cook, P., & White, W. (2008). Risk, recovery and resilience. *Journal of Intergenerational Relationships, 4*(1), 65-77.

Cope, D. G. (2014). Methods and meaning: Credibility and trustworthiness of qualitative research. *Oncology of Nursing Forum*, *41*(1), 89-91.

Connelly, L. M. (2106). Trustworthiness in qualitative research. *Understanding research*, *25*(6), 435-436.

Creswell, J. (2014). *Research design: Qualitative, quantitative and mixed methods approaches* (4th ed.). California: SAGE.

Darawsheh, W., & Stanley, M. (2014). Reflexivity in research: Promoting rigour, reliability and validity in qualitative research. *International Journal of Therapy and Rehabilitation, 21*(12), 560-568. doi:10.12968/ijtr.2014.21.12.560

Dean, J., & Stain, H. J. (2007). The impact of drought on the emotional well-being of children and adolescents in rural and remote New South Wales. The Journal of Rural Health: Official. *Journal of the American Rural Health Association and the National Rural Health Care Association, 23*(4), 356-64.

Department of Basic Education. (2013). *Education Statistics in South Africa for 2011.* Published by the Department of Basic Education, March 2013. Pretoria: Department of Basic Education.

De Jager, A., Tewson, A., Ludlow, B., & Boydell, K. (2016). Embodied ways of storying the self: A systematic review of body-mapping. *Forum: Qualitative Social Research*, *17*(2). Retrieved from: http://www.qualitativeresearch.net/index.php/fqs/article/view/2526

Draper, K., Ritter, K. B., & Willingham, E. U. (2003). Sand tray group counseling with adolescents. *Journal for Specialists in Group Work*, *28*(3), 244-260.

Ebersöhn, L. (2012). Adding ‑Flock‑ to ‑Fight and flight‑ A honeycomb of resilience where supply of relationships meets demand for support. *Journal of Psychology in Africa, 22*(1), 29-42.

Ebersöhn, L. (2013). Building generative theory from case work: The relationship-resourced resilience model. *In well-being research in South Africa* (pp. 97-121). Springer: Netherlands.

Ebersöhn, L. (2014). Teacher resilience: Theorizing resilience and poverty. *Teachers and Teaching: Theory and Practice, 20*(5), 568-594.

Ebersohn, S., & Bouwer, C. (2013). An exploratory study on the utilisation of resilience by middle adolescents in reconstituted families following divorce. *South African Journal of Education, 33*(2).

Ebersohn, S., & Bouwer, A. (2015). A bio-Ecological interpretation of the relationship challenges in the context of the reconstituted family. *South African Journal of Education, 35*(2).

Ebersöhn, L., Ferreira, R. (2011). Coping in an HIV/AIDS-dominated context: Teachers promoting resilience in schools. *Health Education Research, 26*(4), 596-613. doi:10.1093/her/cyr016

Ebersöhn, L., Ferreira, R. & Mnguni, M. (2008). Teachers‑use of memory-box-making to provide psychosocial support in their pastoral role. *Journal of Psychology in Africa*, *18*(3), 305-315.

Ebersöhn, L., Eloff, I., Finestone, M., Grobler, A., & Moen, M. (2015). Telling stories and adding scores: Measuring resilience in young children affected by maternal HIV and Aids. *African Journal of Aids Research (Ajar), 14*(3), 219-27. doi:10.2989/16085906.2015.1052822.

Ebersöhn, L., Nel, M., & Loots, T. (2017). Analysing risk and resilience in the first sand tray of youth at a rural school. *Arts in Psychotherapy, 55,* 146-157. doi: 10.1016/j.aip.2017.04.007

Eberts, S., & Homeyer, L. (2015). Processing sand trays from two theoretical perspectives: gestalt and adlerian. *International Journal of Play Therapy, 24*(3), 134-150.

Eggerman, M., & Panter-Brick, C. (2010). Suffering, hope, and entrapment: Resilience and cultural values in Afghanistan. *Social Science & Medicine*, *71*(1), 71-83. doi: dx.doi.org/10.1016/j.socscimed.2010.03.023

Elliott, V. (2018). The research interview: Reflective practice and reflexivity in research processes. *International Journal of Research & Method in Education, 1-2*, 1-2. doi:10.1080/1743727X.2018.1425238

Eloff, I., Forsyth, B, Finestone, M., Ebersöhn, L., Visser, M., Ferreira, R., Boeving, A. & Sikkema, K. (2011). Intervention groups for HIV-infected women: the need for additional services. *South African Journal of Psychology*, *41*(1), 38-51.

Emmel, N. (2015). Themes, variables, and the limits to calculating sample size in qualitative research: A response to Fugard and Potts. *International Journal of Social Research Methodology, 18*(6), 685-686.

Erikson, E. H. (1977). *Childhood and society.* New York: Norton.

Evans, J. (2015, November 11). Mpumalanga to be declared a disaster zone. *News24*. Retrieved from http://www.news24.com/SouthAfrica/News/mpumalanga-to-be-declared-drought-disaster-zone-20151111

Fereday, J., & Muir-Cochrane, E. (2016). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods, 5*(1), 80-92. doi:10.1177/160940690600500107

Francis, J. J., Johnston, M., Robertson, C., Glidewell, L., Entwistle, V., Eccles, M. P., & Grimshaw, J. M. (2010). What is an adequate sample size? Operationalising data saturation for theory-based interview studies. *Psychology & Health*, *25*(10), 12-29.

Gladding, S. T., & Villalba, J. (2014). Imitation, impersonation and transformation: Using male role models in films to promote maturity. *Journal of Counseling & Development*, 92(1), 114-121. doi:10.1002/j.1556-6676.2014. 00137.x

Govender, K., Reardon, C., Quinlan, T., George, G. (2014). Childrenøs psychosocial wellbeing in the context of HIV/Aids and poverty: A comparative investigation of orphaned and non-orphaned children living in South Africa. *Bmc Public Health, 14*, 615-615. doi:10.1186/1471-2458-14-615

Govern Beki Municipality. (2011). Retrieved on February 9, 2017, from Statistics South Africa website, http://www.statssa.gov.za/?page_id=993&id=govan-mbeki-municipality

Greeff, A., & Cloete, M. (2015). Family resilience factors in remarried families in South Africa and Belgium. *The Social Work Practitioner-Researcher, 27*(2), 187-203.

Guarte, J. M., & Barrios, E. B. (2006). Estimation under purposive sampling. *Communications in Statistics – Simulation and Computation, 35*(2), 277-284.

Guillemin, M., & Drew, S. (2010). Questions of process informant-generated visual methodologies. *Visual Studies*, *25*(2), 175-188. doi:10.1080/08870440903194015

Haimes, Y. Y. (2009). On the complex definition of risk: A systems-based approach. *Risk Analysis*, *29*(12), 1647-1654. doi:10.1111/j.1539-6924.2009. 01310.x

Hart, C. R., Berry, H. L., & Tonna, A. M. (2011). Improving the mental health of rural New South Wales communities facing drought and other adversities. *The Australian Journal of Rural Health*, *19,* 231-238. doi: 10.1111/j.1440-1584.2011. 01225.x

Hay, I., & Ashman, A. (2010). The development of adolescentsøemotional stability and general self-concept: The interplay of parents, peers, and gender. *International Journal of Disability, Development and Education, 50*(1), 77-91. doi:10.1080/1034912032000053359

Health Professions Council of South Africa. (2017). Professional conduct & ethics. Retrieved from http://www.hpcsa.co.za/conduct/Ethics

Heunis, C., Pienaar, A., & Van Rensburg, H. (2011). A qualitative exploration of resilience in pre-adolescent AIDS orphans living in a residential care facility: Original article. *Sahara: Journal of Social Aspects of HIV / Aids Research Alliance,8*(3), 128-137.

Hills, F., Meyer-Weitz, A., & Oppong Asante, K. (2016). The lived experiences of street children in Durban, South Africa: Violence, substance use, and resilience. *International Journal of Qualitative Studies on Health and Well-being*, *11,* 1-11. doi:10.3402/qhw. v11.30302

Hlatshwayo, M., & Vally, S. (2014). Violence, resilience and solidarity: The right to education for child migrants in South Africa. *School Psychology International, 35*(3), 266-279.

James, L., & Martin, D. (2002). Sand tray and group therapy: Helping parents cope. *Journal for Specialists in Group Work*, *27*(4), 390.

Jefferis, T., & Theron, L. (2017). Promoting resilience among sesotho-speaking adolescent girls: Lessons for South African teachers. *South African Journal of Education, 37*(3), 1-11. doi:10.15700/saje.v37n3a1391

Kalina, O., Geckova, A., Klein, D., Jarcuska, P., Orosova, O., Van Dijk, J., & Reijneveld, S. (2013). Mother's and father's monitoring is more important than parental social support regarding sexual risk behaviour among 15-year-old adolescents. *The European Journal of Contraception and Reproductive Health Care, 18*(2), 95-103. doi:10.3109/13625187.2012.752450

Kia-Keating, M., Dowdy, E., Morgan, M. L., & Noam, G. G. (2011). Protecting and promoting: An integrative conceptual model for healthy development of adolescents. *The Journal of Adolescent Health: Official Publication of the Society for Adolescent Medicine, 48*(3), 220-8. doi: 10.1016/j.jadohealth.2010.08.006

Keim, M. E. (2008). Building human resilience: The role of public health preparedness and response as an adaptation to climate change. *American Journal of Preventive Medicine, 35*(5), 508-516. doi: 10.1016/j.amepre.2008.08.022

Kruger, L., Beer, C., & Du Plessis, A. (2016). Resilience in gay and lesbian parent families: Perspectives from the chrono-system. *Journal of Comparative Family Studies, 47*(3), 343-356.

Kumpfer, K. L. (1999). Factors and processes contributing to resilience. The resilience framework. *Resilience and development: Positive life adaptations* (pp.179-224). Kluwer Academic/Plenum.

Kumpulainen, K., Theron, L., Kahl, C., Bezuidenhout, C., Mikkola, A., Salmi, S., Uusitalo-Malmivaara, L. (2016). Children's positive adjustment to first grade in risk-filled communities: A case study of the role of school ecologies in South Africa and Finland. *School Psychology International, 37*(2), 121-139.

Leandra. (2017). Retrieved February 9, 2017, from Statistics South Africa website, http://www.statssa.gov.za/?page_id=4286&id=11508

Lethale, P. S., & Pillay, J. (2013). Resilience against all odds: A positive psychology perspective of adolescent-headed families. *Africa Education Review*, 579-594.

Levin, K., Kirby, J., & Currie, C. (2012). Adolescent risk behaviours and mealtime routines: Does family meal frequency alter the association between family structure and risk behaviour? *Health Education Research*, 27(1), 24-35. doi:10.1093/her/cyr084

Li, X., Chi, P., Sherr, L., Cluver, L., & Stanton, B. (2015). Psychological resilience among children affected by parental HIV/Aids: A conceptual framework. *Health Psychology and Behavioral Medicine, 3(*1), 217-235.

Lin, C.-S. (2013). Revealing the ŏessenceŏ of things: Using phenomenology in LIS research. *Qualitative and Quantitative Methods in Libraries (QQML)*, *4*, 469-478.

Lincoln, Y. (2016). The ethics of teaching in qualitative research. *Qualitative Inquiry, 4*(3), 315-327. doi:10.1177/107780049800400301

Logan, C., & Ranzijn, R. (n.d.). The bush is dying: A qualitative study of South Australian farm women living in the midst of prolonged drought. *Journal of Rural Community Psychology*, E12(2), 1-22.

Loots, T., Ebersohn, L., Ferreira, R., & Eloff, I. (2012). Teachers addressing HIV&AIDS-related challenges resourcefully. *Southern African Review of Education with Education with Production,18*(1), 56-84.

Louw, J., Peltzer, K., & Chirinda, W. (2012). Correlates of HIV risk reduction self-efficacy among youth in South Africa. *The Scientific World Journal, 2012*, 817315-817315. doi:10.1100/2012/817315

Louw, D., & Louw, A. (2007). *Child and adolescent development.* Bloemfontein, South Africa: The University of the Free State.

Lloyd-Hughes, B. (2014). The impracticality of a universal drought definition. *Theoretical and applied climatology*, *117*(3-4), 607-611.

Lumby, J. (2015). Leading schools in communities of multiple deprivation: Women principals in South Africa. *Educational Management Administration and Leadership, 43*(3), 400-417. doi:10.1177/1741143214558571

Madhavan, S., & Crowell, J. (2014). Who would you like to be like? Family, village, and national role models among black youth in rural South Africa. *Journal of Adolescent Research, 29*(6), 716-737.

Madhavan, S., Richter, L., Norris, S., & Hosegood, V. (2014). Fathersøfinancial support of children in a low-income community in South Africa. *Journal of Family and Economic Issues, 35*(4), 452-463. doi:10.1007/s10834-013-9385-9

Malindi, M. (2014). Exploring the roots of resilience among female street-involved children in South Africa. *Journal of Psychology, 5*(1), 35-45. doi:10.1080/09764224.2014.11885503

Malindi, M., & Theron, L. (2011). Drawing on strengths. *In Picturing Research* (pp. 105-117). Sense.

Malindi, M. J., & Theron, L. C. (2010). The hidden resilience of street youth. *South African Journal of Psychology, 40*(3), 318-326.

Malindi, M. J., & Machenjedze, N. (2012). The role of school engagement in strengthening resilience among male street children. *South African Journal of Psychology, 42*(1), 71-81.

Maina, G., Sutankayo, L., Chorney, R., & Caine, V. (2014). Living with and teaching about HIV: Engaging nursing students through body mapping. *Nurse Education Today*, *34*(4), 643-647. doi: 10.1016/j.nedt.2013.05.004

Mampane, M. R. (2014). Factors contributing to the resilience of middle-adolescents in a South African township: Insight from a resilience questionnaire. *South African Journal of Education*, *34*(4),1-11.

Masten, A. (2011). Resilience in children threatened by extreme adversity: Frameworks for research, practice, and translational synergy. *Development and Psychopathology*, *23*, 493-506. doi:10.1017/S0954579411000198

Masten, A. (2013). Global perspectives on resilience in children and youth. *Child Development*, *85*(1), 6-20.

Masten, A. S. (2015). *Ordinary magic. Resilience in development. Paperback edition*. New York, NY: Guilford Press.

Masten, A. S. (2018). Resilience theory and research on children and families: Past, present, and promise. *Journal of Family Theory & Review*. Advance online publication, https://doi.org/10.1111/jftr.12255

Masten, A. S., Hubbard, J. J., Gest, S. D., Tellegen, A., Garmezy, N., & Ramirez, M. (1999). Competence in the context of adversity: Pathways to resilience and maladaptation from childhood to late adolescence. *Development and Psychopathology, 11*(01), 143-169.

Maree, K. (2007). *First Steps in Research*. Pretoria: Van Schaik.

Maree, J., & Pieterson, J. (2007). In Maree, K. (Ed.), *First Steps in Research*. Pretoria: Van Schaik.

McMillan, J., & Schumacher, S. (2010). *Research in education: Evidence-based inquiry* (7th ed. ed.). Boston: Pearson.

Meinck, F., Cluver, L., Boyes, M., & Ndhlovu, L. (2015). Risk and protective factors for physical and emotional abuse victimisation amongst vulnerable children in South Africa. *Child Abuse Review, 24*(3), 182-197. doi:10.1002/car.2283

Meyiwa, T., Maseti, T., Ngubane, S., Letsekha, T., & Rozani, C. (2014). Women in selected rural municipalities: Resilience and agency against vulnerabilities to climate change. *Agenda empowering Women for Gender Equity*, *28*(3), 102-114. doi:10.1080/10130950.2014.955686

Mishra, A. K., & Singh, V. P. (2010). A review of drought concepts. *Journal of Hydrology*, *391*(1), 202-216. doi: 10.1016/j.jhydrol.2010.07.012

Mkhize, N. (2006). African traditions and the social, economic and moral dimensions of fatherhood. In L. Richter & R. Morrell (Eds.), *Baba: Men and fatherhood in South Africa.* Cape Town, RSA: HSRC Press.

Mohangi, K., Ebersöhn, L., & Eloff, I. (2011). õI am doing okayö: Intrapersonal coping strategies of children living in an institution. *Journal of Psychology in Africa, 21*(3), 397-404. doi:10.1080/14330237.2011.10820473

Mosavel, M., Ahmed, R., Ports, K. A., & Simon, C. (2015). South African urban youth narratives: Resilience within community. *International Journal of Adolescence and Youth, 20*(2), 245-255.

Morojele, N. K., Brook, J. S., & Kachieng'a, M. A. (2006). Perceptions of sexual risk behaviours and substance abuse among adolescents in South Africa: A qualitative investigation. *Aids Care, 18*(3), 215-9.

Morse, J. M. (2015). Critical analysis of strategies for determining rigor in qualitative inquiry. *Qualitative Health Research, 25*(9), 1212-1222. doi:10.1177/1049732315588501

Nieuwenhuis, J (2007). In Maree, K. (2007). *First Steps in Research*. Pretoria: Van Schaik.

Noltemeyer, A., & Bush, K. (2013). Adversity and resilience: A synthesis of international research. *School Psychology International, 34*(5), 474-487.

Ogina, T. (2012). The use of drawings to facilitate interviews with orphaned children in Mpumalanga province, South Africa. *South African Journal of Education, 32*(4), 428-440.

Onya H., Tessera A., Myers B., & Flisher A. (2012). Community influences on adolescents' use of home-brewed alcohol in rural South Africa. *Bmc Public Health, 12*, 642-642. doi:10.1186/1471-2458-12-642

Oppong Asante, K. (2015). Exploring age and gender differences in health risk behaviours and psychological functioning among homeless children and adolescents. *International Journal of Mental Health Promotion, 17*(5), 278-292. doi:10.1080/14623730.2015.1088739

Panter-Brick, C., & Leckman, J. F. (2013). Editorial commentary: Resilience in child development- interconnected pathways to wellbeing. *The Journal of Child Psychology and Psychiatry, 54*(4), 333-336. doi:10.1111/jcpp.12057

Phasha, T. N. (2010). Educational resilience among African survivors of child sexual abuse in South Africa. *Journal of Black Studies, 40*(6), 1234-1253.

Piaget, J. (1972). Intellectual evolution of adolescents to adulthood. *Human Development, 15*, 1-2.

Picciano, A. G. (2015). Paradigms, methodologies, methods, and the role of theory in online and blended learning research. *Conducting Research in Online and Blended Learning Environments: New Pedagogical Frontiers, 12.*

Pillay, J. (2012). Experiences of learners from child-headed households in a vulnerable school that makes a difference: Lessons for school psychologists. *School Psychology International, 33*(1), 3-21.

Pinaar, A., Swanepoel, Z., van Rensburg, H., & Heunis, C. (2011). A qualitative exploration of resilience in pre-adolescent Aids orphans living in a residential care facility. *SAHARA-J: Journal of Social Aspects of HIV/Aids: An open access journal, 8*(3), 128-137. doi:10.1080/17290376.2011.9724995

Ponterotto, J. G. (2005). Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science. *Journal of Counseling Psychology, 52*(2), 126-136. doi: 10.1037/0022-0167.52.2.126

Pretorius, T. B., Padmanabhanunni, A., & Campbell, J. (2016). The role of fortitude in relation to exposure to violence among adolescents living in lower socio-economic areas in South Africa. *Journal of Child and Adolescent Mental Health, 28*(2), 153-62. doi: 10.2989/17280583.2016.1200587

Richards, S. D., Pillay, J., & Fritz, E. (2012). The use of sand tray techniques by school counsellors to assist children with emotional and behavioural problems. *The Arts in Psychotherapy, 39*(5), 367-373. doi: 10.1016/j.aip.2012.06.006

Richter, L., Norris, S., & Swart, T. A. (2006). In-migration and living conditions of young adolescents in Greater Johannesburg, South Africa. *Social Dynamics*, *32*(1), 195-216.

Röhrs, S., Berry. L., Lake. L., Shung-King, M. In Delany A, Jehoma S & Lake L (eds) (2016) *South African Child Gauge 2016.* Cape Town: Children's Institute, University of Cape Town.

Rolfe, G. (2006). Validity, trustworthiness and rigour: quality and the idea of qualitative research. *Journal of Advanced Nursing*, 53(3), 304-310.

Rukema, J. R., & Simelane, H. S. (2013). Indigenous knowledge systems, drought and people's resilience and responses: The case of Msinga community in KwaZulu-Natal. *Indilinga – African Journal of Indigenous Knowledge Systems, 12*(1), 108-125.

Rutter, M. (2012). Resilience as a dynamic concept. *Development and Psychopathology, 24*(2), 335-44. doi:10.1017/S0954579412000028

Schoeman, S. (2015). Towards a whole-school approach to the pastoral care module in a postgraduate certificate of education programme: A South African experience. *European Journal of Teacher Education, 38*(1), 119-134.

Shi, Z. (2011). Dilemmas in using phenomenology to investigate elementary school children learning English as a second language. *Creative Commons Attribution-Noncommercial-No Derivative Works, 17*(1), 3-13.

Singh, K. (2007). *Quantitative social research methods*. Los Angeles: Sage Publications.

Selikow, T., Ahmed, N., Flisher, A., Mathews, C., & Mukoma, W. (2009). I am not 'umqwayito': a qualitative study of peer pressure and sexual risk behaviour among young adolescents in Cape Town, South Africa. *Scandinavian Journal of Public Health*, *37*(S2), 107-112. doi:10.1177/1403494809103903

Spillett, M. A. (2003). Peer debriefing: Who, what, when, why, how. *Academic Exchange Quarterly*, *7*(3), 36.

Theron, L., & Theron, A. M. C. (2010). A critical review of studies of South African youth resilience, 1990-2008. *South African Journal of Science, 106*(7/8). doi:10.4102/sajs.v106i7/8.252

Theron, L. C. (2013). Black studentsørecollections of pathways to resilience: Lessons for school psychologists. *School Psychology International, 34*(5), 527ö539. doi:10.1177/0143034312472762

Theron, L. (2016a). Toward a culturally and contextually sensitive understanding of resilience: Privileging the voices of black, South African young people. *Journal of Adolescent Research, 31*(6), 635-670. doi:10.1177/0743558415600072

Theron, L. C. (2016b). Researching resilience: lessons learned from working with rural, Sesotho-speaking South African young people. *Qualitative Research, 16*(6), 720-737. doi: 10.1177/1468794116652451

Theron, L. (2017). Adolescent versus adult explanations of resilience enablers: A South African study. *Youth & Society, (9/2017)*. doi:10.1177/0044118X17731032

Theron, L., & Donald, D. (2013). Educational psychology and resilience in developing contexts: A rejoinder to toland and carrigan (2011). *School Psychology International, 34*(1), 51-66.

Theron, L. C., & Hall, A. M. (2016). Resilience process supporting adolescents with intellectual disability: A multiple case study. *Intellectual and Developmental Disabilities,54*(1), 45-62. doi: 10.1352/1934-9556-54.1.45

Theron, L., & Malindi, M. (2010). Resilient street youth: A qualitative South African study. *Journal of Youth Studies, 13*(6), 717-736.

Theron, L., & Phasha, N. (2015). Cultural pathways to resilience: Opportunities and obstacles as recalled by black South African students. *Cross-Cultural Advancements in Positive Psychology, 11*, 51-65.

Theron, L., Cockcroft, K., & Wood, L. (2017). The resilience-enabling value of African folktales: The read-me-to-resilience intervention. *School Psychology International, 38*(5), 491-506. doi:10.1177/0143034317719941

Thupayagale-Tshweneagae, G., Mgutshini, T., & Moleki, M. (2012). Adolescent girls orphaned by Aids in South Africa: Approaches in transitioning into adulthood. *African Journal for Physical Health Education, Recreation and Dance,18*(3), 574-586.

Teitelman, A. M., Jemmott, J. I., Bellamy, S. L., Icard, L. D., O'Leary, A., Heeren, G. A., & Ratcliffe, S. J. (2016). Partner violence, power, and gender differences in South African

adolescentsø HIV/sexually transmitted infections risk behaviors. *Health Psychology*, *35*(7), 751-760. doi:10.1037/hea0000351

Toland, J., & Carrigan, D. (2011). Educational psychology and resilience: New concept, new opportunities. *School Psychology International*, 32(1), 95-106.

Ungar, M. (2008). Resilience across cultures. *British Journal of Social Work, 38*(2), 218-235.

Ungar, M. (2011). The social ecology of resilience: Addressing contextual and cultural ambiguity of a nascent construct. *American Journal of Orthopsychiatry ,81*(1), 1-17. doi: 10.1111/j.1939-0025.2010. 01067.x

Ungar, M. (2015). Social ecological complexity and resilience processes. *The Behavioral and Brain Sciences, 38*, 124. doi:10.1017/S0140525X14001721

Ungar, M. (2016). Varied patterns of family resilience in challenging contexts. *Journal of Marital and Family Therapy, 42*(1), 19-31. doi:10.1111/jmft.12124

Van Breda, A. D., & Theron, L. (2018, March). An indigenous framework for youth resilience in South Africa. Paper presented at International Social Work Conference, Kigali, Rwanda.

Van Rensburg, A., Theron, L., & Rothmann, S. (2015). A review of quantitative studies of South African youth resilience: Some gaps. *South African Journal of Science, 111*(7-8).

Vélez-Agosto, N. M., Soto-Crespo, J. G., Vizcarrondo-Oppenheimer, M., Vega-Molina, S., & García Coll, C. (2017). Bronfenbrenner's bioecological theory revision: Moving culture from the macro into the micro. Perspectives on Psychological Science: *A Journal of the Association for Psychological Science, 12*(5), 900-910. doi:10.1177/1745691617704397

Vermeulen, T., & Greeff, A. P. (2015). Family resilience resource in coping with child sexual abuse in South Africa. *Journal of Child Sexual Abuse, 24*(5), 555-571. doi:10.1080/10538712.2015.1042183

Vetter, S. (2009). Drought, change and resilience in South Africaøs arid and semi-arid rangelands. *South African Journal of Science, 105*, 29-33.

Visser, M., & Moleko, A. G. (2012). *Community Psychology in South Africa.* Pretoria: Van Schaik.

Wild, L., Flisher, A., & Robertson, B. (2013). Risk and resilience in orphaned adolescents living in a community affected by AIDS. *Youth & Society, 45*(1), 140-162.

7. Addendum

Addendum A Recruitment Advert

ADDENDUM A

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.

Addendum B Invitation and assent for adolescents

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Education

ADDENDUM B

PARTICIPANT INVITATION AND ASSENT FORM
(Adolescents)

We invite you to participate in a project called: *Patterns of resilience among young people in a community affected by drought: Historical and contextual perspectives.*

Who are we?
We are researchers 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). Our contact details are at the end of this letter if you need them.

What are we doing in this project?

We want to learn from you (and about 50 other young people from Govan Mbeki municipality) about what helps young people, whose communities are badly affected by drought, to be resilient. To be resilient is to keep doing OK in life even when life is hard. With your help, we also want to learn what adults in your community know about what has helped your community to keep doing OK in times of drought. Together with you, we want to come up with a plan that will help communities to help young people to be resilient.

The Research Ethics Committee of the Faculty of Education, University of Pretoria has said it is OK for us to do this study (number: ##). They know we will work carefully using South Africa's and international ethical rules (this is actually called the guidelines and principles of the international Declaration of Helsinki and the ethical guidelines of the National Health Research Ethics Council). The committee will maybe want to look at the forms you sign (if you say yes to being in this study) to check that we did everything in the right way.

Why are we asking you to be part of this project?
Because you
    1. Are 15-17 years old, *and*

    2. Are OK speaking English and can read and write in English, *and*.

    3. Live in Secunda area, Mpumalanga.

Addendum C Member Checking of the greater project

WHICH CHARACTERISTICS OF YOUNG PEOPLE MAKE THEM RESILIENT TO DROUGHT-RELATED STRESS?

Being positive about the future

1. Hope that everything is going to be fine.
2. I like what makes me stay healthy and I'm always thinking positively like what am I going to do like what's next, stuff like that.

Distracting yourself and the people around you

Looking at things in a positive way

1. Okay, what I think will help you to be ok when there is a drought: in your heart you have to be calm and in your mind you have to think only positive things
2. You can think of something good that should or could be happening into your life.
3. You know when you wake up there is new hope every day.

CHOOSING A POSITIVE LIFESTYLE

Making good life choices

1. And also I am also a Christian. I pray to the Lord to look after me and also I have faith each and every day
   1. I also pray and and have faith that this shall pass because everything does pass
   2. I talk to Jesus, and if you talk to Jesus you are answered and everything is fine

Thinking bigger than just myself

1. I help old people when they go and collect water in the river or in some other location that is nearby and has water.
2. what can I do or add in order to overcome the drought and what input can I put into the community in order to assist in the community.

Educating other people is important

Addendum D Excerpt illustrating open coding

Addendum E
Excerpt illustrating open coding process

Activity: Body Mapping

Participants: Young adults

Question: What are the intrapersonal resources that support health and well- being of adolescents in the drought challenged context Leandra, Mpumalanga t?

645 P4: Okay, my name is Kutlo and I am a female in terms of gender. In terms of drought, generally I experience I simply need

646 support from family, friends, people that I know, also from church mates. Sometimes I usually go to my church to release the stress I am

647 facing during that time and sometimes I simply look at the fashion shows and everything and the news simply, I simply update me about

648 what is going on in South Africa and I also playing, playing with my father and doing my school work especially maths, I do love maths.

649 And I simply know that water is a basic need of life and without water there is nothing that you can do. In terms of food, I simply like to

650 eat, eh, I simply like fast food, fruit, all the types of food that we have. Especially when we got food at home. My family suffer from

651 drought, because there is no food, there is no water and they simply need money to buy the fast food and the water also. So there is not

652 enough money to buy the food. For example, if we experience a drought all through the year, there would simply be no money, because

653 there will be other expenses like we need money at the house and we simply know there's no money enough for that. It is not good to

654 have water, because sometimes I do like water and I simply know that in order for me to be healthy and to do all these things and have

655 energy, I need water and without water there is nothing that I can do and I just think also that I need water, so I simply lose the immune

656 system, because of water and I like talking to people, because people makes me feel good and I forget about the things that I am thinking

Commented [G1]: Adolescents need support from family, friends and people that they know for their well-being.

Commented [G2]: People at the church create a support system

Commented [G3]: Church attendance alleviates stress for adolescents during drought.

Commented [G4]: Engaging in activities with family members supports a stressful environment

Commented [G5]: Communication (Talking) with people that they know is a supportive resource.

Addendum E Table of inclusion and exclusion criteria

Theme	Resilience-supporting way of life	
Subthemes	**Inclusion**	**Exclusion**
Constructive lifestyle choices	Any positive individual strategies/actions that help young people overcome drought.	Any positive individual strategies/actions that are not related to overcoming drought. Excludes any strategies that may be family orientated. Excludes any strategies that may be community orientated
A positive outlook	Thinking positively; Accepting the reality of drought; Having a positive mind-set and engaging in meaning-making towards the drought situation.	Excludes all meaning-making that does not relate to drought Excludes any negative thinking or meaning making towards drought
Being helpful to others	Any act where it is helping others during the time of drought. Be it pragmatic or supportive	Excludes any action that is not intended to help others
Being positively future orientated	Individual future orientations; Dreams or plans for the future; Self-development to facilitate future aims.	Excludes any future orientation for the family and/or community Excludes any dreams of plans by the family and/or community Excludes any self-development that is not orientated towards the future.
Theme	Adopting a Non-Drought Focus	
	Inclusion	**Exclusion**
	Any action/resource that takes the focus of the young person off the drought: includes social media and sport/recreational activities. Purposely thinking about other things e.g. sport, chatting, music, books, food.	Excludes any example of religious actions Excludes any activity that facilitates emotional support or cognitive development (e.g., reading to develop new skills instead of it being a distraction).
Theme	Managing Drought-Related Challenges	
Subthemes	**Inclusion**	**Exclusion**
Self-regulation	Changing personal water usage habits. Individual regulation of day to day activities related to water or drought.	Excludes self-regulation that does not manage drought-related challenges. Excludes any change in personal habits that do not relate to the