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THE UTILITY OF A DüSS FABLE FOR CROSS-CULTURAL MEASUREMENT OF RESILIENCE IN YOUNG CHILDREN

By

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This dissertation is dedicated to my father,

Late Willem Adriaan van Nieuwenhuizen for his example of hard work and dedication has motivated me throughout my years of study

to my mother, husband, son and sisters...

for without your love , support, patience and understanding this might never have been written

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ABSTRACT

THE UTILITY OF A DüSS FABLE FOR CROSS-CULTURAL MEASUREMENT OF RESILIENCE IN YOUNG CHILDREN

By

A. GROBLER

Supervisor	**:**	Prof. Liesel Ebersöhn
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Degree	**:**	Magister Educationis (Educational Psychology)

There is limited research on the utility of specific assessment measures for cross-cultural psychological and research measurement within the South-African context. In addition limited knowledge exists on cross-cultural measurement of resilience in young children. This study analyses purposefully selected (existing) data from the Kgolo Mmogo project (which investigated psychological resilience in South African mothers and children affected by HIV/AIDS) with the aim of exploring the utility of a Düss fable as projective story-telling technique to measure resilience in young children. The primary research question that guided this study was: '*What is the utility of a Düss fable as cross-cultural measure of resilience in young children?*' Using the ecological and social cross-cultural model as theoretical framework, the concurrent mixed method study compares inductively derived themes from the Düss fables (qualitative: content analysis) with quantitative scores obtained from secondary analysis of Child Behavior Checklist scores.

Subsequent to the data analysis themes of resilience and non-resilience emerged from the Düss fables as well as from the CBCL. The themes of both resilience (protective resources) and non-resilience (risk factors) emerged and where significantly situated within the children's environments. The core themes of resilience as expressed by the child-participants related to their coping strategies, their sense of belonging, the availability of material resources and their ability to navigate towards positive institutions. The most prominent themes of non-resilience that emerged from the participants' Düss fables related

to their coping strategies (maladaptive coping), their awareness of chronic risk, adversity and death. The CBCL was included in the study to provide insight into the perspective of the participants' mothers with regards to their children's functioning. Predominantly the mothers mostly perceived their children as well adjusted. The risk-related behaviours mostly reported by the mothers were externalising problems that manifested as rule-breaking and aggressive behaviour.

The Düss fables provided meaningful insights into the life experiences of the children. There were instances where the participants' responses were rich and detailed. The majority of the participants' stories were age-appropriate and informative, while in some instances the participants gave limited responses. Nonetheless, the Düss fable provided valuable insights into the child-participants' thoughts, emotions and life-experiences

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KEY CONCEPTS

- **Resilience**

- **HIV/AIDS in the South African context**

- **Young children**

- **Cross-cultural psychology**

- **Indigenization**

- **Cross-cultural assessment and measures**

- **Düss fable**

- **Child Behavior Checklist**

In a tree next to a forest is a bird's nest. Two birds and their chicks live there. The chicks are able to fly. It is night time and they are all fast asleep. Suddenly a tremendous storm comes up and shakes the tree so bad that the nest with the birds falls down, onto the ground. The birds wake up. The mother bird immediately flies back into their tree and the daddy bird flies into another tree close by.

Question: What do the chicks do?

The little birds were sitting on the ground, waiting to fly back to the tree. No they could not do it because their wings were not yet well developed. They kept on trying over and over again but fell back on the ground again. They were eventually stolen by people, killed and eaten up. The mom and father to the little birds could not rescue them and take them back to the tree because they don't have hands like human beings to pick the little birds up. The little birds were crying for help, calling their parents by blowing whistles but it did not help. So after they were eaten up, the mother and father-bird decided to change (turn) themselves into human beings and confronted the people that stole their little birds about the stealing. Those people confessed that they ate the little birds. The adult birds, who were now human beings got angry, picked up beer bottles, broke them and stabbed those people and they died. After that they changed themselves back to being birds again. It ends there. There is nothing more I know or I can say.

Participant 602

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CHAPTER 1

ORIENTATION, PROBLEM STATEMENT, CONCEPTUALISATION AND METHODOLOGICAL OVERVIEW

1.1 INTRODUCTION AND RATIONALE

Globally, cross-cultural and cross-linguistic encounters have always existed. However, the concepts of counselling, psychotherapy and psychological practices as a whole are mostly based on certain Western philosophical assumptions and values, whereas non-Western worldviews have been marginalised (Louw 2004; Sue & Sue, 2008). Historically, psychology as a discipline developed in the European-American culture - hence the predominance of one indigenous psychology commonly accepted by other societies (Allwood & Berry, 2006). In recent years, populations across the globe have increased rapidly with regard to racial-ethnic, religious and other forms of multiculturalism largely due to globalisation and migration. The changes and their implications are observable worldwide, but are especially prominent in South Africa. As a consequence, interest in cultural diversity within the field of psychology across the globe is increasing rapidly (Byrne, Leong, Hambleton, Oakland, van de Vijver & Cheung, 2009; Van de Vijver & Rothmann, 2004).

South Africa is characterised by its linguistic and cultural diversity that consists of a variety of racial groups and eleven official languages (Louw, 2004). Iglesias and Quinn (in Louw, 2004, p. 259) point out that these diversities pose challenges for healthcare and education professionals. A specific challenge is to determine how to deliver services that are embedded in sound scientific knowledge and at the same time demonstrate respect for the cultures of clients. The occurrence of cross-cultural psychological research and assessment is mainly motivated by a growing societal need. It is a response to an apparent need to deal with a multitude of cultures in psychological assessment without the sole designation of a single culture (Afrikaans- and English-speaking groups) as the model for other cultures (African-language speakers) (Van de Vijver & Rothmann, 2004).

The Kgolo Mmogo project, of which this study forms part, was a collaborative five-year longitudinal study at a local hospital in Tshwane. The project focused on psychological resilience in South African mothers and children who are affected by HIV/AIDS (Eloff, 2008). During the sourcing of assessment instruments, researchers faced challenges as the participants were mostly individuals from cultures for whom existing measures were not

validated (Ebersöhn, Eloff, Van Dullemen, Finestone, Sikkema & Forsyth, 2009). The researchers chose projective techniques, checklists and questionnaires which were adapted and translated into different languages (isiZulu, Sepedi, Setswana, Setsotho) for use on this project. One of the Düss Fables served as an assessment measure chosen for use with young children[1]. Therefore, the aim of this study is to investigate the utility of this Düss fable as projective storytelling technique to measure resilience in young children. This exploration includes triangulating the Child Behavior Checklist (CBCL) scores (Merrel, 2008) with resilience- related Düss themes.

A preliminary literature study (Cameron, Ungar & Liebenberg, 2007; Kim-Cohen, Moffitt, Caspi & Taylor, 2004; Ebersöhn, 2007; Ebersöhn & Eloff, 2002; Ebersöhn & Maree, 2006; Eloff, & Ebersöhn, 2002; Luthar, Chichetti & Becker, 2000; Murphy & Marelich, 2008; Theron & Theron, 2010) indicated that research in the field of resilience is a rapidly growing entity. Globally, much research (Bauman, Camacho, Silver, Hudis & Draimin, 2002; Cluver, Fincham & Seedat, 2009; Cluver & Operario, 2008; Croce *et al.*, 2007; De Vane Fair, 2006; Hebling & Hardy, 2007; Stein, Rotheram-Borus & Lester, 2007) has been conducted with regard to the HIV/AIDS landscape and the challenges that people living in such contexts face. However, little research has been done locally with regard to resilience in children within an HIV/AIDS context (Murphy & Marelich, 2008) and consequently, with regard to measuring resilience.

Literature (Achenbach, Becker, D pfner, Heiervang, Roessner, Steinhausen & Rothenberger, 2008; Byrne *et al.*, 2009; Foxcroft, 2004; Boivan *et al.*, in Jansen & Greenop, 2008, p. 355; Van De Vijver & Rothmann, 2004; Van Widenfelt, Treffers, De Beurs, Siebelink & Koudijs, 2005) indicate that only a small number of culturally relevant measures have been developed for use with the diverse cultural and language groups in South Africa. The majority of measures used in South Africa were developed from a monocultural perspective and adapted for use in the South African context. When considering South Africa's historical and current context, there is evidently a need for culturally relevant measures embedded in sound theoretical frameworks that are sensitive to the contextual factors that influence children's development.

Within this study, an effort was made to contribute to different areas of knowledge. Given the limited research on the utility of specific assessment measures for cross-cultural assessment within the South African context (Boivan *et al.,* in Jansen & Greenop, 2008, p. 355; Foxcroft,

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[1] Six-year-old HIV-negative children living with their HIV-infected mothers who originate from different cultural groupings. Most of the children were in Grade 0 (pre-school), Grade 1 or Grade 2, while 3.4% of the children did not attend school (Ebersöhn *et al.*, 2009).

2004), the results of this study may contribute knowledge on cross-cultural psychological assessment. As previously mentioned, little research has been conducted locally on resilience in children in the context of HIV/AIDS (Ebersöhn & Eloff, 2002; Ebersöhn & Maree, 2006; Murphy & Marelich, 2008) and this study could contribute to this area of knowledge. The findings from this study could add value to the practice of educational psychology within a cross-cultural setting with regard to young children and in particular when measuring resilience.

Young children, especially the six-year-old child, often find it difficult to verbally express their feelings and emotions (King, 1995) as they are still in the process of developing more complex and differentiated cognitive and language skills (Eloff, 2001; Green, 2001). The Düss storytelling technique serves as an aid for younger children to express their emotions in an informal, relaxed and developmentally appropriate manner (Catterall & Ibbotson, 2000). It offers the opportunity to gain insight into the children's conscious and unconscious needs, feelings, thoughts and life experiences (Kaplan & Saccuzzo, 2001; Sundberg in Lilienfeld, Wood & Garb, 2000, p. 9). Conversely, the CBCL (Achenbach & Rescorla, 2001) provides insight into children's adaptive functioning from the mothers' perspectives.

1.2   PURPOSE AND PROBLEM STATEMENT

I formulated the following primary research question:

What is the utility of a Düss fable as cross-cultural measure of resilience in young children?

To be able to address the primary research question, the following secondary research questions were addressed:

- What are the themes of resilience that emerge from children's responses to a Düss fable?
- What are the levels of resilience of children as reported by their mothers according to the CBCL?
- How do resilience results compare in terms of the Düss story and the CBCL?

1.3   CLARIFICATION OF KEY CONCEPTS

In this section I provide a brief summary of the definitions and discussions of the key concepts relating to this study as a more in-depth discussion is provided in Chapter 2 of this dissertation.

1.3.1 Resilience

Resilience can be viewed as a broad conceptual umbrella which covers various concepts (Masten & Obradović, 2006) related to patterns of positive adjustment or adaptation in the context of significant adversity or risk associated with negative outcomes. Initially, resilience was viewed solely as intrinsic protective factors such as personality traits, dispositional characteristics and biological factors. However, resilience is currently understood as a dynamic context-bound process which gives emphasis to cultural and context-specific mechanisms that advance resilience (Theron & Theron, 2010). Therefore, resilience is a combination of an individual's characteristics, the structures surrounding them, the services they receive and the manner in which health knowledge is generated that allows individuals to surmount adversity and navigate pathways to resilience (Ungar, 2005). Resilience is essentially inferential and to judge resilience in a child one must ascertain whether there has been a significant threat to the child's adjustment and whether the child meets the expectations of positive adjustment to the threat (Masten & Obradović, 2006).

In Chapter 2 I provide a more detailed discussion on resilience and the various risk factors and protective resources related to the adjustment of young children that are relevant to my study (Figure 1.1). I also discuss factors relating to the cross-cultural measurement of resilience.
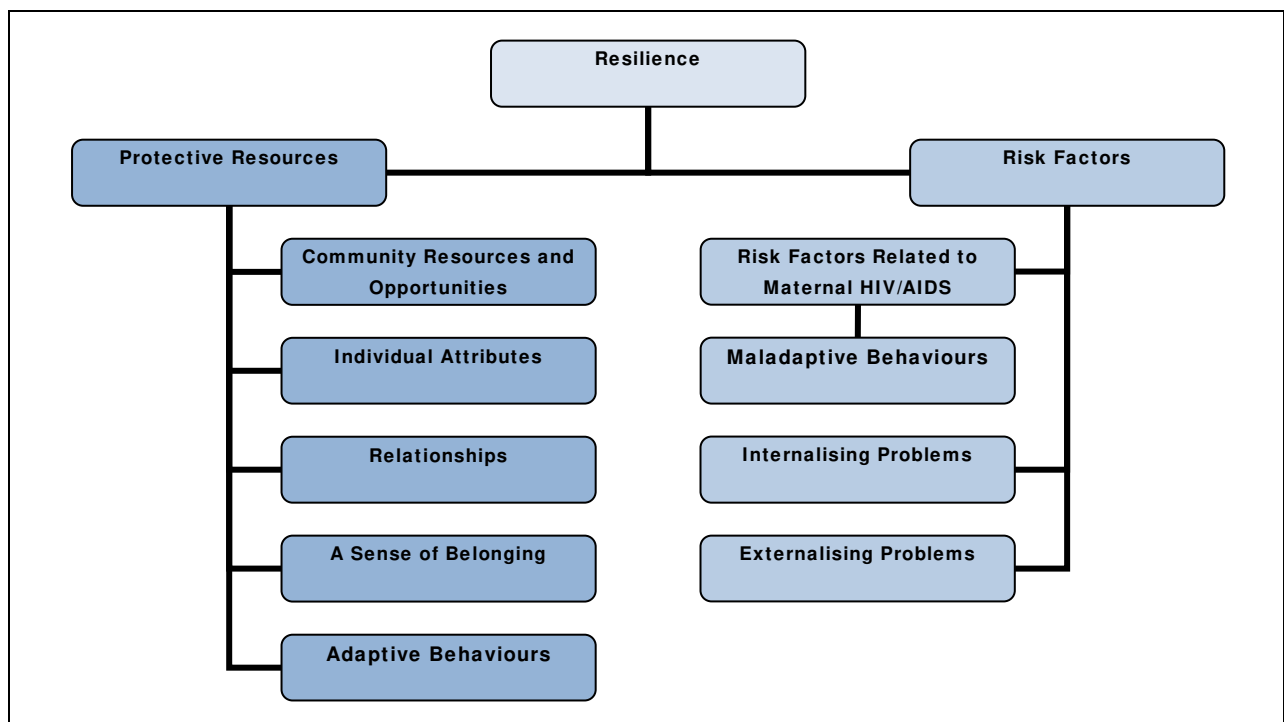
Figure 1.1   Protective resources and risk factors associated with resilience

1.3.2 HIV/AIDS in the South African context

South Africa is the country with the highest prevalence of HIV/AIDS in the world, with an estimated 5.4 million people with HIV/AIDS (Abdool Karim, 2011). Research (UNAIDS global report, 2010) also shows that since 2004 there has been an increase in people receiving antiretroviral therapy, and in South Africa this has resulted in decreased HIV mother-to-child transmission. There has also been an increase in the desire of HIV-infected women to have children. Consequently, there are more healthy children being born to mothers living with HIV/AIDS (N stlinger, Jonckheer, de Belder, van Wijngaerden, Wylock, Pelgrom & Colebunders, 2004). Communities with a high prevalence of HIV/AIDS are also frequently poverty-stricken and resource-scarce. There are multiple cumulative risk factors such as unemployment, orphanhood, anxiety, malnutrition and other psychosocial challenges that are associated with HIV/AIDS and that impact on the children and families affected by HIV/AIDS (Cluver, 2011; Ebersöhn & Maree, 2006; Ebersöhn, 2007). Recent research also shows that with regard to children in particular, HIV/AIDS in a family has major long-term effects on their development and psychological health (Cluver, 2011). Research regarding resilience in children affected by HIV/AIDS is therefore necessary.

1.3.3 Young children

In this study 'young children' denotes six-year-old children in the Kgolo Mmogo project. According to Louw and Louw (2007), the age of six years is the start of the middle childhood years. It is a relatively placid phase with regard to the physical development of the child. Conversely, it is an important phase of the child's cognitive, self-concept, social and emotional development. The school and social relationships start to play an important role in the child's development; however, the importance of the parents in this phase of the child's life is still crucial (Green, 2001; Thomas, 2005; Wenar & Kerig, 2005). In Table 1.1 I present a summary of the developmental areas relevant to the six-year-old child.

Table 1.1   Summary of development areas of six-year-old children

Developmental Tasks (Louw *et al.,* 1998)	Cognitive and Language Development (Eloff, 2001; Thomas, 2005)	Personal and Social Development (Eloff, 2001; Louw & Louw, 2007)	Emotional Development (Louw & Louw, 2007)
Refined motor-development	Pre-operational thought period	Industry vs inferiority	Develop an increased capability to judge the social appropriateness of emotional expressions
Establishment of gender-role identity	Learn to use language for social and communicative purposes	Development of identity	Improved ability to suppress negative emotional reactions
Development of several cognitive abilities	Develop the ability to make deductions and solve problems	Develop a sense of industry	More proficient at recognising and talking about their own and others' emotions
Expansion of knowledge	Develop the ability to distinguish between the appearance of objects and the way they really are	Construct and develop their own differentiated, complex stories of the self.	Increased ability to understand complex emotions
Expansion of social skills	Thought, language and reasoning processes are formed through mediated social interaction		Growing awareness with regard to controlling and managing emotions to meet social standards
Development of improved self-knowledge			
Continuous development of moral judgment and behaviour			

The aforementioned illuminates the importance of this phase of development for children and their adjustment through life's challenges. It necessitates the assessment and development of resilience in children exposed to risk factors such as maternal HIV/AIDS.

1.3.4 Cross-cultural psychology

Cross-cultural psychology concerns human diversity (Berry, 1997), more specifically the methodical study of the influence of cultural context on the variance in human behaviour (Berry, Poortinga, Segall & Dasen, 2002). Therefore, culture takes prominence in cross-cultural psychology and subsequently, human behaviour (Kim, Park & Park, 2000; Segall, Lonner & Berry, 1998).

1.3.5 Indigenisation

Indigenisation serves as a vehicle for achieving the goals of cross-cultural psychology – understanding cultures from their own contexts by integrating knowledge gained from cross-cultural testing with indigenous knowledge (Kim *et al.,* 2000). A major aspect of indigenisation involves the development of new assessment measures or the adaptation of existing assessment measures for use with local populations (Sinha in Stead & Watson, 2006, p. 187). Indigenisation is a way of contextualising psychology to make the profession more culture-specific and responsive to the social realities of different individuals (Ebersöhn *et al.*, 2009; Sinha, 1998).

1.3.6 Cross-cultural assessment and measures

Globalisation and migration have resulted in populations across the globe becoming more multicultural (Van De Vijver & Rothmann, 2004). Consequently, there has been an increase in the globalisation of psychology which necessitates reliable and valid measures that can be used in various languages and cultures (Van Widenfelt *et al.,* 2005). Psychologists have a responsibility to enhance social justice and to become culturally competent[2]. To do that, they must understand the essence of culture, race and gender together with the emotions that accompany these issues (Sue & Sue, 2008). Byrne *et al.*, (2009) state that advancement in both cross-cultural research and assessment is important for future psychologists to be

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[2] With culturally competent the author refers to 'The ability to think, feel and act in ways which acknowledge, respect, and build upon ethnic, cultural and linguistic diversity' (Lynch, 1998 in Louw, 2004, p. 259).

sufficiently prepared and knowledgeable with regard to the challenges of cross-cultural work (credible and unbiased assessment). They (Byrne *et al.,* 2009) also draw attention to the structural and measurement equivalence issues that constitute a common methodological concern in cross-cultural research. From an educational psychology stance, Shonkoff and Meisels (in Lubbe, 2004, p. 319) regard the process of assessment as acquiring and understanding information to facilitate the child's development and functional abilities within the family and the community. Psychological measures (assessment instruments) are used in practice to gather information with regard to an individual's (child's) functioning and adaptation to facilitate their development. As these measures are used with children from various cultures for whom existing measures have not been validated (Ebersöhn *et al.,* 2009), the importance of valid measures for cross-cultural assessment becomes evident.

1.3.7   Düss fable

The Düss (Despert) fables comprise a projective storytelling technique which was developed for the purpose of eliciting information on emotional conflicts of children (Peixotto, 1957; Peixotto, 1960). Projective techniques are popular methods used to assess children's social and emotional functioning (Lilienfeld *et al.*, 2000; Merrel, 2008). The Düss fable can be used to gather information on young children's 'inner processes' (thoughts and feelings) (Merrel, 2008; Peixotto 1957) as well as on their interpersonal relationships (Symonds & Hessel, 1950).

For the purpose of this study, I analysed existing data relating to six-year-old children's resilience at the time of baseline assessment by researchers from the Kgolo Mmogo project. A Düss fable was used to explore this fable's utility for the measurement of resilience in young children cross-culturally. The Düss fable was administered by research assistants from the Kgolo Mmogo project. The qualitative analysis of the children's Düss fables enabled me to identify specific themes of resilience (protective resources) and non-resilience (risk factors) related to the children themselves as well as to their environments.

1.3.8   Child Behavior Checklist

The CBCL[3] formed part of the baseline assessment done by the research assistants from the Kgolo Mmogo project. The CBCL is an instrument where the parents or other significant individuals who know the child well, rate the child's social, emotional and behavioural problems,

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[3] An in-depth discussion on the CBCL is provided in Chapter 3 of this dissertation.

adaptive functioning and competencies (Achenbach & Rescorla, 2001; Merrel, 2008). It is a quantitative assessment instrument which provides scores on specific syndrome scales (anxious/depressed, withdrawn/ depressed, somatic complaints, attention problems, and social problems, rule-breaking and aggressive behaviour) to identify specific social, emotional and behaviour problems as well as adaptive functioning. Several of these syndrome scales are grouped into internalising and externalising problems (Achenbach & Rescorla, 2001; Wenar & Kerig, 2005); thereby providing both general and specific information on the nature and extent of a child's functioning (Merrel, 2008).

For the purpose of this study, I compared the CBCL results in order to understand the children's adaptive functioning from the mothers' perspective. From the interpretation of the CBCL scores I identified themes of resilience (protective resources) and non-resilience (risk factors) and triangulated the themes identified from the Düss fables with that of the CBCL.

1.4 THEORETICAL FRAMEWORK

The ecological and social cross-cultural model (Georgas, 1988, 1993) - understanding child development in context

According to Finestone (2004), behaviour does not occur independently but rather in relation to the surrounding environment. The environment interacts and shapes behaviour and vice versa. Human behaviour is also fashioned by the cultural context in which it develops, and therefore culture is seen as an emergent property of individuals interacting with their natural and human environment (Kim *et al.*, 2000).

The ecological and social cross-cultural model (Georgas, 1988, 1993 in Dasen, 2003, p. 137) accentuates the fact that behaviour develops in certain contexts and to understand behaviour one also has to understand the contexts in which it takes place (Shiraev & Levy, 2004). In this model, the family and community, functioning within a larger cultural context, are emphasised with the child placed at the centre (Dasen, 2003). Therefore, this framework for understanding child development takes into account all the complex interrelationships between a child and all other systems interacting with the child within the larger cultural context. In other words, this framework serves as a model for understanding the complex nature of resilience, the interrelated risk factors and protective resources, and their effects on the child's developmental outcomes.

1.5   PARADIGMATIC PERSPECTIVE

During my study I followed a mixed method methodological paradigm anchored in pragmatism as metatheoretical paradigm (Creswell & Plano Clark, 2007). Using pragmatism as paradigm enabled me to choose the methods, techniques and procedures that best met the needs and purposes of my study (Creswell, 2009). From a pragmatic stance, epistemological issues are seen as a continuum between objectivity and subjectivity rather than in opposition with one another. Therefore, quantitative and qualitative methods are viewed as compatible (Teddlie & Tashakkori, 2009). According to pragmatists, reality exists in one's mind as well as external to the individual (Ivankova, Creswell & Plano Clark, 2007; Teddlie & Tashakkori, 2009). The process of theme identification was facilitated through the acknowledgement of the participants' external realities as well as their individual subjective realities.

1.6.   OVERVIEW OF RESEARCH DESIGN AND METHODOLOGY

In this section I provide a concise summary of the context of my study, the research design, data collection strategies and analysis. A comprehensive discussion is provided in Chapter 3.

1.6.1   Research context

As previously mentioned, this study forms part of the Kgolo Mmogo project. This project is a collaborative five-year longitudinal study situated at a local hospital in Tshwane (Eloff, 2008) which focused on developing resilience in HIV-positive mothers and their children (Eloff *et al.,* 2011). All the participants participating in this study came from resource-scarce communities in the nearby area. In addition to dealing with the effects of HIV/AIDS, many of the participants were also faced with stressors such as poverty, discrimination, neglect and malnutrition (Forsyth in Van Dullemen, 2009, p.38).

1.6.2   Research design

Since the purpose of my study is to explore and describe themes of resilience that emerge from responses by six-year-old children to a Düss fable as a way to determine the utility of a Düss fable for the cross-cultural measurement of resilience in young children, I used a concurrent mixed method research design (Creswell & Plano Clark, 2007). Both quantitative and qualitative data sets were collected and analysed simultaneously, yet separately. The results from the data analysis of the two different data sets were then compared in order to determine

the convergence of the data (Creswell & Plano Clark, 2007; Creswell, 2009). In Figure 1.2 I present the type of mixed method design that was followed during the process of documents selection, analysis and interpretation.
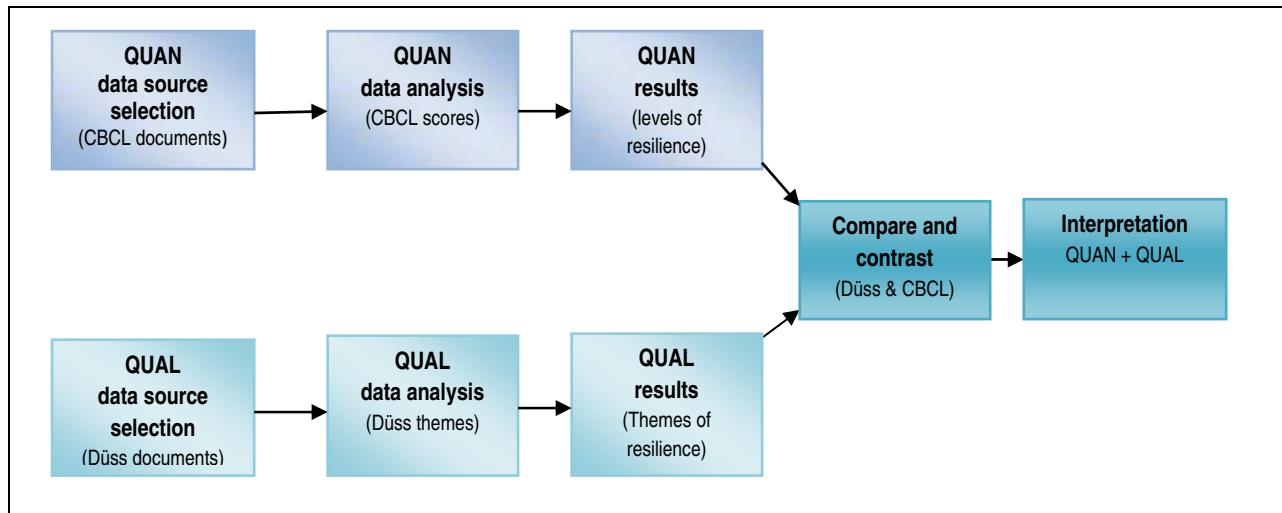
Figure 1.2   Triangulation design: Convergence Model

(Adapted from Creswell & Plano Clark, 2007)

1.6.3   Selection of documents

I purposefully selected (Maree & Pietersen, 2007; Teddlie & Tashakkori, 2009) existing qualitative and quantitative data (documents) from a sample of participants in the Kgolo Mmogo project. The data was collected by a team of research assistants trained in the field of HIV/AIDS. I selected the documents on the basis that both the quantitative (CBCL) and the qualitative (Düss fable) assessment measures should be completed for each participant. The participants who completed these documents had to be between the ages of five years six months and six years eleven months. In order to triangulate the data, the results from the CBCL were compared to the themes from the Düss fables. In Chapter 3 I provide a detailed explanation of the specific assessment measures used.

1.6.4   Data analysis and interpretation

As stated, the first step in this one-phase design entailed the concurrent yet separate analysis of the CBCL (quantitative data) and the Düss fable (qualitative data). The qualitative data analysis consisted of identifying themes that emerged from the participants' Düss fables. The quantitative data analysis consisted of assessing the participants' levels of adaptive functioning

according to their scores on the CBCL. From the analysis of the different data sources, various themes of resilience and non-resilience emerged.

The second step entailed merging, comparing and contrasting the results gained from both data sources to triangulate the data. The last step involved the interpretation of the various results from both data sources to end up with valid well-substantiated conclusions (Creswell & Plano Clark, 2007) with regard to the utility of a Düss fable for the measurement of resilience in young children from various cultures.

1.6.5 Quality criteria and trustworthiness

Quality criteria are vital to any research study and refer to the strategies which are implemented during the research process to ensure the validity of the research study (Maree & Van der Westhuizen, 2009; Whittemore, Chase & Mandle, 2001). Throughout the research process I made every effort to address issues of credibility, transferability, confirmability, dependability and authenticity (Lincoln & Guba in De Vos, 2005, p.346; Seale, 1999).

During the process of data analysis and interpretation I adhered to the strategies (Seale, 1999) described in Chapter 3, to enhance the trustworthiness of qualitative data.

To enhance rigour, I used reflexivity and triangulation (Mays & Pope, 2000; Tobin & Begley, 2004). I guarded against my own predetermined ideas and misperceptions and I did not use data selectively, thus enhancing the validity of the study (Maree & Van der Westhuizen, 2009).

1.7. ETHICAL CONSIDERATIONS

Mouton (2001) states that the 'ethics of science concerns what is wrong and what is right in the conduct of research' (p. 238). During the research process, I considered certain ethical issues as they related to my study. These include informed consent, confidentiality, anonymity, examination of secondary data and ethical clearance. A detailed explanation of each individual issue is provided in Chapter 3 of this dissertation.

1.8. CHAPTER OUTLINE

Chapter 1: Introduction, orientation, problem and purpose statement, conceptualisation and methodological overview.

Chapter 1 is the introductory chapter that provides a clear description of the background of the study and the key concepts relating to the study. In this chapter, the purpose of the study is explained and the research questions are stated. Furthermore, the chapter provides an overview of the methodological paradigms used.

Chapter 2: Literature study

Chapter 2 contains a detailed, in-depth discussion of the literature relevant to my study. In this chapter I provide a more detailed exploration of the key concepts resilience, six-year-old children, HIV/AIDS in the South African context, cross-cultural psychology, indigenisation, and cross-cultural assessment and measures, as well as the Düss fable and CBCL. The chapter also provides a theoretical framework for understanding children as situated within context.

Chapter 3: Research design and methodology

Chapter 3 provides a more comprehensive discussion of the research process, design and methodological perspective. The chapter continues with a discussion on the trustworthiness of the data as well as the ethical considerations specific to this study.

Chapter 4: Research results

I present the results of the different data sources in Chapter 4 in terms of the themes of resilience and non-resilience identified from the Düss fable as well as the scores on the CBCL. This chapter concludes with the comparison of the two data sources and subsequent results.

Chapter 5: Findings, conclusion and recommendations

In Chapter 5 I present the findings of the research, possible contributions of the study and recommendations for future research.

1.9   SUMMARY

Chapter 1 provided an outline of the study. I discussed the problem statement and aim of the study. I provided a description of the background and nature of the study. In Chapter 2 I present a detailed discussion of the key concepts relating to this study. For the purpose of elucidation, I present and discuss a theoretical framework and its related concepts.

CHAPTER 2

LITERATURE STUDY

2.1   INTRODUCTION

This study focuses on the utility of a Düss[4] fable as projective assessment technique for cross-cultural measurement of resilience in young children within the South African context. In this Chapter I will discuss the main concepts relating to my study. I explore the concept of resilience and briefly describe the context as it relates to the participants in the study. I describe cross-cultural assessment and indigenisation grounded in cross-cultural psychology, as well as the utility of a Düss fable as projective assessment technique for use with children.[5]

2.2   RESILIENCE

2.2.1   The conceptualisation of resilience

The idea of resilience has been around for a long time as can be seen in historic events, stories, fairy tales and myths depicting heroic individuals overcoming adverse circumstances (Campbell in Masten & Reed, 2002, p. 74; Garmezy, 1996). In the 1970s the concept of resilience was first introduced (Masten & Obradović, 2006; Vanderbilt-Adriance & Shaw, 2008) by scientists researching children who seemed to be well adjusted even though they were at risk of developing problems and psychopathology (Bonanno & Mancini, 2008; Luthar, Cicchetti & Becker, 2000; Masten in Masten & Reed, 2002, p. 74; Ungar, 2005; Ungar, 2008). The construct resilience was firstly conceptualised as stable internal personal characteristics such as optimism, flexibility, an easy temperament and intelligence (Feder, Nestler & Charney, 2009; Theron & Theron, 2010; Vanderbilt-Adriance & Shaw, 2008). Children that displayed these characteristics in adverse circumstances were referred to as 'invulnerable', 'stress-resistant' or 'resilient' (Garmezy, Masten & Tellegen in Theron & Theron, 2010, p1; Luthar, Cicchetti & Becker, 2000; Masten & Reed, 2002; Pine in Vanderbilt-Adriance & Shaw, 2008, p. 30; Ungar, Brown, Liebenberg, Cheung & Levine, 2008) and resilient became the most prominent term (Luthar *et al.*, 2000; Masten & Reed, 2002).

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[4] The Düss fables are also known as the Despert fables and for the purposes of this dissertation the terms will be used interchangeably

[5] For the purposes of this study young children refers to the six-year-old child, unless otherwise stated.

Within the field of resilience research, the focus then shifted from studying internal individual characteristics to studying the factors contributing to resilience. Researchers developed an enhanced understanding of resilience as a process that relied on protective factors found within families and communities (Luthar *et al.*, 2000; Theron & Theron, 2010) that serve as a barrier to the effects of risk (Ungar, *et al.*, 2008) as well as protective factors within the individual. Thus, resilience was understood as a combination of protective factors and not only as a personal quality (Theron & Theron, 2010; Ungar, Brown, Liebenberg, Othman, Kwong, Armstrong & Gigun, 2007). Resilience researchers then began to conceptualise resilience as a transactional process (Sameroff, 2009; Ungar, 2004) which consists of transactions between systems (Theron & Theron, 2010; Ungar, 2004). This ecological view of the construct of resilience lays the foundation for the majority of research that have been done on resilience. However, Ungar (2004) argues for the construct of resilience to be viewed from a constructionist approach which reflects a postmodern interpretation thereof. According to this approach, resilience is viewed as the 'outcomes from negotiations between individuals and their environments for the resources to define themselves as healthy amidst conditions collectively viewed as adverse' (Ungar, in press as cited in Ungar, 2004, p. 342). Therefore, the construct of resilience is increasingly being viewed as influenced by culture and context (Theron & Theron, 2010).

2.2.2 Defining resilience

Over the past few decades, the term resilience has been defined in numerous ways (Miller, 2003). These varied definitions of the term resilience have led to criticism of the inconsistency in definitions and terminology (Davidson, 2008; Luthar *et al.*, 2000; Ungar & Teram, 2005), ambiguity and the broadness of the construct resilience (Lightsey, 2006).

Consider the following definitions: Garmezy (1991) for example defined resilience as 'the maintenance of competent functioning despite an interfering emotionality' (as cited in Emery & Forehand, 1996, p. 64). Masten and Reed (2002) defined resilience as 'patterns of positive adaptation in the context of significant adversity or risk' (p. 75). Rolfe (2002) defined resilience as 'a mechanism or process that helps to protect individuals from the negative psychological effects of adverse experiences and other risk factors' (p. 1). Steinhardt and Dolbier (2007) defined resilience as 'the ability to recover quickly from disruptions in functioning that result from stress appraisals and to return to the previous level of functioning' (p. 445).

After considering the various definitions of resilience, it is evident that resilience can be understood as either developmental outcomes, demonstrations of competence under stress or

positive functioning after trauma (Luthar *et al.,* 2000; Ungar, 2008). Nevertheless, after decades of research on resilience and numerous definitions of the construct, resilience is most commonly defined as a pattern of positive adjustment (outcomes) in the context of significant adversity or risk factors that is known to be associated with negative outcomes (Masten & Reed, 2002; O'Dougherty Wright & Masten, 2006; Vanderbilt-Adriance & Shaw, 2008). However, Ungar (2011) states that 'people do not overcome challenges in isolation from the people and supports that surround them' (p. 14). The author (Ungar, 2011) goes on to comment that to describe an individual's ability to bounce back from the exposure to chronic stressors (child abuse, poverty) as the measure of the individual's resilience can be too narrowly focused, arguing (Ungar, 2011) for a broader definition of resilience, and concluding:

> *In the context of exposure to significant adversity (whether psychological, environmental or both), resilience is both the capacity of the individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being and their capacity individually and collectively to negotiate for these resources to be provided and experienced in culturally meaningful ways. (p.14)*

Understood this way, resilience can be viewed as a two-part process of navigation and negotiation. Navigation refers to the personal agency of the child (the child's capacity to seek help) as well as the availability of the help that the child is seeking, as one can only navigate towards that which is readily available and easily accessible (Ungar, 2008). Similarly, Ebersöhn (2007) explains that the coping actions (inferred resilience) that a child displays is determined by their personal qualities, their knowledge of coping options as well as their own subjective conviction with regard to the usefulness of these coping options.

Negotiation refers to the provision of health resources[6] in ways that are meaningful to the individual child (Ungar, 2008). Resilience is thus a description of the quality of an individual (characteristics) (Ebersöhn, 2007), developmental outcomes (Ungar, 2008) as well as a condition of the individual's social and physical ecologies and the process (Ebersöhn, 2007; Ungar, 2008) of their dynamic (Luthar *et al.*, 2000; Ungar *et al.*, 2008) interaction. It is the process of navigation towards what one needs to maintain well-being; and the process of negotiation for what one needs to ensure that resources that maintain well-being are provided in meaningful ways (Ungar, 2011). Scholars (Ebersöhn, 2007; Luthar *et al.*, 2000; Ungar, 2008) assert that however flexible and resilient a child may be, the child's environmental variables

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[6] Resources include individual strengths and environmental assets (Ebersöhn & Maree, 2006).

demonstrate resilience in order to negotiate with the child and to provide that which the child needs for coping. Thus, resilience is understood as individual characteristics as well as a quality of the environment which provide the essential resources needed for positive development, regardless of adverse circumstances (Ungar *et al.,* 2007).

For the purposes of this dissertation the term 'resilience' will refer to the definition of Ungar (2011), which views resilience as a process of the individual's navigation and negotiation for the resources needed to maintain well-being.

2.2.3   Measurement of resilience

The importance of the study of resilience is evident as it has implications for understanding child development, and for prevention and intervention efforts to improve outcomes for children at risk (Vanderbilt-Adriance & Shaw, 2008). Theron and Theron (2010) state that because of the growing emphasis in research on strengths, and the lack of resources that many South African communities face, insight into resilience is crucial. According to Ungar *et al.*, (2008) researchers face major challenges in the conceptualisation and development of standardised units of measurement for resilience.

Luthar and Zelazo (2003) state that 'resilience' in itself can never be directly measured. They (Luthar & Zelazo, 2003) go on to explain that 'resilience' is judged (O'Dougherty Wright & Masten, 2006; Ungar *et al.*, 2008) or inferred based on the measurement of the two constructs that make up resilience, namely risk or adversity and positive adaptation. Masten and Reed (2002) likewise state that to identify individuals who are resilient, inferences must be made about their behaviour and their circumstances. Firstly, the individual must be evaluated as functioning 'okay', by displaying acceptable (adaptive) behaviour (Finestone, 2004). Secondly, the individual's circumstances must be identified as posing a significant risk and threat to good outcomes. Various criteria (absence of undesirable behaviour, academic achievement) have been used to judge whether the child or individual shows good adaptation when exposed to risk factors. Subsequently, the question 'How does one identify good adaptation in children?' arises. When viewed from a developmental perspective, good outcomes can be defined as meeting age-related developmental tasks or milestones. These developmental tasks are 'stage-salient issues that must be confronted and mastered' (Wenar & Kerig, 2005, p. 17). These developmental tasks might to a certain extent vary between cultures, but are most probably widely shared across cultures (Masten & Reed, 2002).

2.2.3.1 The cross-cultural measurement of resilience

Theron and Theron (2010) explain that initially, protective factors associated with resilience were confined to the individual, but given the evolution of resilience research, resilience is currently conceptualised as dynamic, context-bound transactions and the focus has shifted from listing protective resources to emphasising the culturally and contextually specific mechanisms that advance resilience. Similarly, Ungar (2005) notes that in order to understand resilience one must keep in mind the cultural, social and structural forces at play. Cooke and Michie (in Ungar, 2005, p. 213) draw attention to the complexities of researching resilience cross-culturally. The authors (Cooke & Michie in Ungar, 2005, p. 213) argue that the relevance, significance and psychological meaning of behaviours may vary across cultures. They further state that cultural factors may possibly influence responses to even the most elementary of questions in questionnaires and instruments. These challenges together with the questionable appropriateness of Western research models, further complicated by problems with regard to the construct of resilience, highlight the complexity of cross-cultural resilience research.

The outcomes associated with resilience (good coping and adaptation) are in the process of being viewed as the result of what specific communities define as healthy and socially acceptable functioning for their children (Minkler & Wallerstein in Ungar *et al.*, 2008, p. 3). Studies show that there is variance across populations with regard to coping strategies, relationships with family and peers and the provision of resources, even when the children were raised in similar contexts (Ungar, 2005; Ungar, 2008; Ungar *et al.*, 2008). Cultural traditions, religious practices and ceremonies as well as community support services serve as protective factors oftentimes embedded in culture (O'Dougherty Wright & Masten, 2006). Ungar (2008) is of the opinion that in order to guard against the hegemonic characterisation of successful development and coping strategies, one should understand the context in which the resilience-fostering resources are found. The author (Ungar, 2008) also points out that it is sensible to rely on communities for their own context-bound definitions of resilience, since a family or community needs to be resilient in order to foster resilient children. Therefore, the definition of resilience may be influenced by cultural and contextual factors (Boyden & Mann, 2005; Rolfe, 2002).

Findings from the International Resilience Project (Ungar *et al.*, 2008, p.6) identified seven universal 'tensions' (see Table 2.1) through which youth must navigate for resolutions in order to portray resilience. The ways in which youth navigated these tensions were found to be unique to each participant in the study. These findings underscore the complex, dynamic

processes and interactions among risk and protective process variables related to resilience (Ungar *et al.*, 2008). Ungar *et al.*, (2008) suggest that when individuals have the ability to negotiate for resources to be provided in culturally meaningful ways, it result in resilience. In Table 2.1 I present the seven universal tensions identified.

Table 2.1   **Universal tensions for navigation towards resilience**

Tension	Explanation of tension
Access to material resources.	Access to food, clothing and shelter. The availability of financial, educational and medical opportunities.
Access to supportive relationships.	Relationships with significant others. Relationships with peers and adults in one's family and community.
Development of a desirable personal identity.	A desirable sense of one's self – having a personal and collective sense of purpose. The ability of self-appraisal, of strengths and weaknesses, objectives, beliefs and values. Spiritual and religious identity.
Experience of personal power and control.	Experiences of caring for others and oneself. The experience of the ability to influence one's social and physical contexts to access health resources.
Adherence to cultural traditions.	Having knowledge of one's cultural practices, values and beliefs. Adherence to these practices, values and beliefs.
Experience of social justice.	Experiences related to finding a meaningful role in one's community – relating to acceptance and social equality.
Experiences of a sense of cohesion.	Feeling part of something larger than oneself socially and spiritually. Balancing one's personal interests with a sense of responsibility to the greater good.

(Adapted from Ungar *et al.*, 2008, p. 6.)

2.2.4 Risk factors as an intrinsic component of resilience

It is apparent that despite the sometimes muddled conceptualisations of resilience all the definitions take into consideration threats to good adaptation expressed in terms such as *risk, adversity, negative life events,* and *vulnerability* (Masten & Reed, 2002; O'Dougherty Wright & Masten, 2006). All these definitions of resilience have a common denominator – resilience occurs in the presence of adversity (Luthar *et al.*, 2000; Masten & Reed, 2002; Ungar, 2008). Ungar (2005) put it this way, 'without risk, there is no resilience, only health of a different order' (p. xvi).

Risk can be defined as the increased possibility that an unwanted or negative outcome may occur (Masten & Reed, 2002; O'Dougherty Wright & Masten, 2006). Research has shown that risk factors are by nature cumulative and seldom occur in isolation (O'Dougherty Wright & Masten, 2006; Rolfe, 2002). Cumulative risk can then be defined as the total combined effects of risk factors (Ebersöhn & Maree, 2006; Masten & Reed, 2002). Children exposed to multiple adversities or cumulative risk (HIV/AIDS, poverty, crime, neglect, being orphaned) (Ebersöhn & Eloff, 2006) over time are placed at higher risk for the development of maladaptive behaviours. The probability of negative outcomes increases as the risk factors cumulate and in essence, resilience becomes less prevalent (O'Dougherty Wright & Masten, 2006; Rolfe, 2002; Winslow, Sandler & Wolchik, 2006).

Universally, children have the same basic needs for loving stable relationships, a sense of belonging, safety (Hagerty, Williams & Oe, 2002), food, positive role models, as well as social and cultural pathways which facilitate their progress through the various developmental stages (Myers in Cook & Du Toit, 2005, p. 248). As previously mentioned, important to this process whereby children develop a sense of control, self-efficacy, coherence, and belonging is the need to interact with their environments and have access to diverse opportunities (Cook & Du Toit, 2005). The HIV/AIDS context (as is the case with the participants of the Kgolo Mmogo project) is characterised by chronic and cumulative adversity embedded in poverty, uncertainty and discrimination (Mohangi, 2008). These HIV/AIDS-related stressors are especially challenging for children (Ebersöhn & Maree, 2006). Ebersöhn (2007) also identified several of the cumulative stress factors that children affected by HIV/AIDS experience. They include learning support challenges, lack of access to material resources, social stigma, sadness with regard to the possible loss of loved ones, and discrimination. As young children are extremely dependent on their caregivers, maternal HIV/AIDS would probably be a strong risk factor, especially when they have no constructive relationships with other adults in their lives (Murphy

& Marelich, 2008). Thus, the most perilous aspect of living in an HIV/AIDS context could be the severed social ties and human bonds that children need to survive and flourish (Cook & Du Toit, 2005).

2.2.4.1 Adaptive and maladaptive behaviour

It is clear that to comprehend resilience and subsequently adversity, one should also understand adaptive (resilience-related) and maladaptive (risk-related) behaviours. These behaviours are complexly interrelated; to understand maladaptive behaviour one should also understand adaptive behaviour, as these concepts overlap (Garmezy, 1996). Maladaptive behaviour could at one time be judged as adaptive and at another time, in a different development stage and in other circumstances, as maladaptive and vice versa (Achenbach in Garmezy, 1996, p. 14; Boyden & Mann, 2005; Masten & Powell, 2003). Ungar *et al.*, (2008) also supports this view by stating that what seems like dysfunction or maladaptive behaviour to an outsider is often a child's only solution in circumstances where resources are scarce. Ungar (2008) is of the opinion that children who demonstrate the ability to use these limited resources should possibly be considered resilient even though their behaviour might be judged otherwise (maladaptive) by individuals who benefit from greater access to health-enhancing resources. Research on resilience emphasises the importance of understanding poor adjustment (maladaptive behaviour) as well as good adjustment (adaptive behaviour), and risk processes as well as protective processes (Masten & Powell, 2003).

Internalising and externalising problems reflect aspects of children's adaptive and maladaptive behaviours. Internalising problems reflect problems within the self, such as anxiety, depression (Suzuki, Alexander, Lin & Duffy, 2006), somatic complaints and withdrawal from social contacts. In contrast, externalising problems reflect conflicts with other people and with their expectations of children's behaviour (Achenbach & Rescorla, 2001). A study conducted by Wong *et al.*, (2006) found that less resilient children were perceived by their parents as having more internalising and externalising problems in adolescence than more resilient children.

2.2.5 Protective processes intrinsic to resilience

Protective factors and processes are those that moderate risk. As previously mentioned, individuals can be more or less resilient at different times during their lives as protective factors vary and accumulate (Howard, Dryden & Johnson, 1999; Murphy & Marelich, 2008; Rolfe, 2002). Research shows that there are certain attributes that resilient people portray; these

include positivity, hopefulness, self-respect, self-worth, commitment, a purpose in life and the ability to seek support. Ebersöhn and Maree (2006) include emotional intelligence in the equation, postulating that the portrayal of resilience can be viewed as a form of emotional giftedness.

However, children are not born resilient but rather with certain characteristics (temperament) that help them approach the world in a positive way. Resilience predominantly develops through close relationships (Boyden & Mann, 2005; Murphy & Marelich, 2008; Wong *et al.*, 2006) and experiences with supportive adults which promote self-efficacy, optimism, coping[7] skills and feelings of security and a sense of belonging (Rolfe, 2002). Thus, supportive and consistent developmental environments, especially the family (Ebersöhn & Maree, 2006; Howard *et al.*, 1999) stimulate the early development of competence[8] in children, which in turn plays an imperative role in adaptation later in life (Luthar *et al.*, 2000; Rolfe, 2002; Yates, Egeland & Sroufe, 2003). The demonstration of competence in one developmental period provides the child with a foundation that facilitates successful encounters with succeeding stage-salient issues. Thus, the longer an individual is on a developmental pathway (either adaptive or maladaptive), the more pronounced the developmental patterns that are formed and the more difficult it will be for the individual to deviate from these patterns (Yates *et al.*, 2003).

In order for children to benefit from the protective resources or efforts provided by adults, they must have the ability to effectively engage their psychosocial environments (Cook & Du Toit, 2005; Yates *et al.*, 2003). In Table 2.2 I present examples of the attributes of individuals and elements of their contexts that are often associated with resilience.

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[7] Coping concerns the way in which an individual manages and adapts to risk (Ebersöhn & Maree, 2006).
[8] Competence is the flexible use of both internal and external resources in order to successfully negotiate developmental or stage-salient issues in life (Cichetti & Schneider-Rosen, 1986; Waters & Sroufe, 1983 in Yates *et al.*, 2003, p. 247).

Table 2.2   Protective factors and processes related to resilience

Individual attributes	Relationships	Community resources and opportunities
Cognitive abilities and problem solving skills • High intellect • Attention skills • Executive functions **Self-perceptions of competence** • Self-worth • Confidence • Self-efficacy • Self-esteem • Sense of coherence **Temperament and personality** • Adaptability • Sociability • Self-regulation skills • Impulse control • Regulation of affect • Arousal regulation **Positive outlook on life** • Hopefulness • Faith • Llife has meaning	**Quality of parenting** • Stable and supportive home environment • Parental warmth • Sense of cohesion (belonging) • Structure • Monitoring • Expectations **Close relationships with competent adults** • Parents • Other relatives • Mentors **Connections to pro-social and rule-abiding behaviours** • Among other children	**Good schools** • Well-trained teachers • School recreation (art, music, sport) **Connections to pro-social organizations** • Clubs • Religious groups **Neighbourhood quality** • Public safety • Collective supervision • Libraries • Recreation centres **Quality of social services and health care** • Access to medical, police and fire services

[Adapted from Masten and Powell (2003, p. 13) and O'Dougherty Wright & Masten, (2006, p. 24)]

2.2.5.1   A sense of belonging and resilience

It has been theorised that a sense of belonging is one of the basic human needs and a lack of a sense of belonging has been linked to social and emotional problems (Hagerty, Williams & Oe, 2002), especially internalising problems such as depression (Choenarom, Williams & Hagerty, 2005). An enhanced sense of belonging promotes better functioning (adaptive behaviour) (Choenarom *et al.*, 2005) and also influences an individual's sense of identity (Ebersöhn & Maree, 2006). A sense of belonging can be defined as experiences of personal participation in relationships, systems or environments in such a way that the individuals perceive themselves as integrated within an interpersonal system (Choenarom *et al.*, 2005). It is a subjective emotional reaction to a place and/or people (Fail, Thompson & Walker, 2004).

2.3   YOUNG CHILDREN AFFECTED BY HIV/AIDS IN THE SOUTH AFRICAN CONTEXT

The discussion on the measurement of resilience in young children has made it clear that it is also imperative to understand the contexts in which children live as well as the developmental stages through which they progress. As it pertains to this study, I will explore and discuss the development of six-year-old children within the South African HIV/AIDS context.

2.3.1   HIV/AIDS in the South African context

The majority of South African children face serious threats to their survival, health, development and participation since more than fifty percent of these children live in poverty-stricken communities taxed by HIV/AIDS (Carhall, 2007). Moreover, South Africa is globally the country with the highest number of persons living with HIV/AIDS in the entire world (Cook & Du Toit, 2005; UNAIDS global report, 2010). A South African study of 3,988 children in 2004 indicated that 2.2 percent of the children had lost both their parents, 3.3 percent had lost a mother and 10.1 percent a father (Sherr, 2005). These findings highlight the fact that the HIV/AIDS pandemic represents a chronic stressor in the lives of many South African children (Ebersöhn & Eloff, 2002). The emergence of HIV/AIDS is particularly prominent in the context of poverty, illness and need (Ebersöhn & Eloff, 2002; Ebersöhn & Maree, 2006; Richter, 2004; Sherr, 2005). HIV/AIDS is especially visible in South African communities already disadvantaged by poverty, poor infrastructure and limited access to basic services (Foster & Williamson, 2000) These problems are compounded by illiteracy, unemployment, orphanhood and discrimination which render children vulnerable. These cumulative risk factors contribute to the dilemma of undernourished children struggling to function optimally on mental, physical and psychosocial

levels (Ebersöhn & Maree, 2006; Foster & Willamson, 2000; Richter, 2004; Sherr, 2005). In essence, cumulative risks over time (especially poverty in the context of HIV/AIDS) are detrimental to children's development and functioning and undermine their overall well-being (Dawes, Van der Merwe & Brandt, 2007; Noble, Wright & Cluver, 2007).

HIV/AIDS has its most immediate effect on children's home environments and leaves young children especially vulnerable (Brandt in Dawes *et al.*, 2007, p. 362). Noble *et al.* (2007) emphasise the importance of caregivers and the quality of care children receive in promoting child well-being at all ages. The psychological effects of HIV/AIDS in a child's family or community may shape their childhood experiences, especially with regard to the quality of parenting (Fair, 2006), as maternal well-being (depression and anxiety) affects the mother-child relationship (Richter, Stein, Cluver & Kadt, 2009). The decline in the physical and psychological resources of HIV-infected mothers in conjunction with poverty, influences the quality of the mother-child relationship (Fair, 2006). Thus, HIV/AIDS affects children's experiences of being loved, their levels of attachment and the occurrence of separation from their parents (Richter, 2004; Sherr, 2005). HIV/AIDS has an effect on children's education, stimulation and opportunities to play, as school attendance often decline in the face of financial difficulty (Noble, Wright & Cluver, 2007; Sherr, 2005) and stigmatisation. In the context of HIV/AIDS, children are at risk of being exposed prematurely to grief and bereavement. The illness of family members (especially parents), the associated stigma of HIV/AIDS (Ebersöhn & Eloff, 2002; Murphy, Roberts & Hoffman, 2006; Sherr, 2005) and social circumstances may trigger emotional trauma in children.

The loss of parental care negatively affects children's resiliency efforts. As previously mentioned HIV/AIDS can cause stigmatisation and discrimination against the children and families affected by the disease. As a consequence, children feel unworthy and struggle to attain a unique sense of their own identity. Children experience a loss of control and direction in their lives in the absence of loving and available caregivers (Ebersöhn & Maree, 2006). HIV/AIDS and its related factors directly or indirectly affect children's learning, role modelling, self-esteem, schooling, relationships and families - in essence, all levels of development (Ebersöhn & Eloff, 2002; Sherr, 2005). Children affected by HIV/AIDS have a greater probability of experiencing educational shortfalls and psychosocial distress, in particular internalising problems (Cluver & Operario, 2008). Thus, children of HIV-infected mothers are placed at higher risk for developing behavioural and developmental problems (Fair, 2006). In Figure 2.1 I present an overview of the problems and their complex interrelationship, that children and families affected by HIV/AIDS generally encounter.
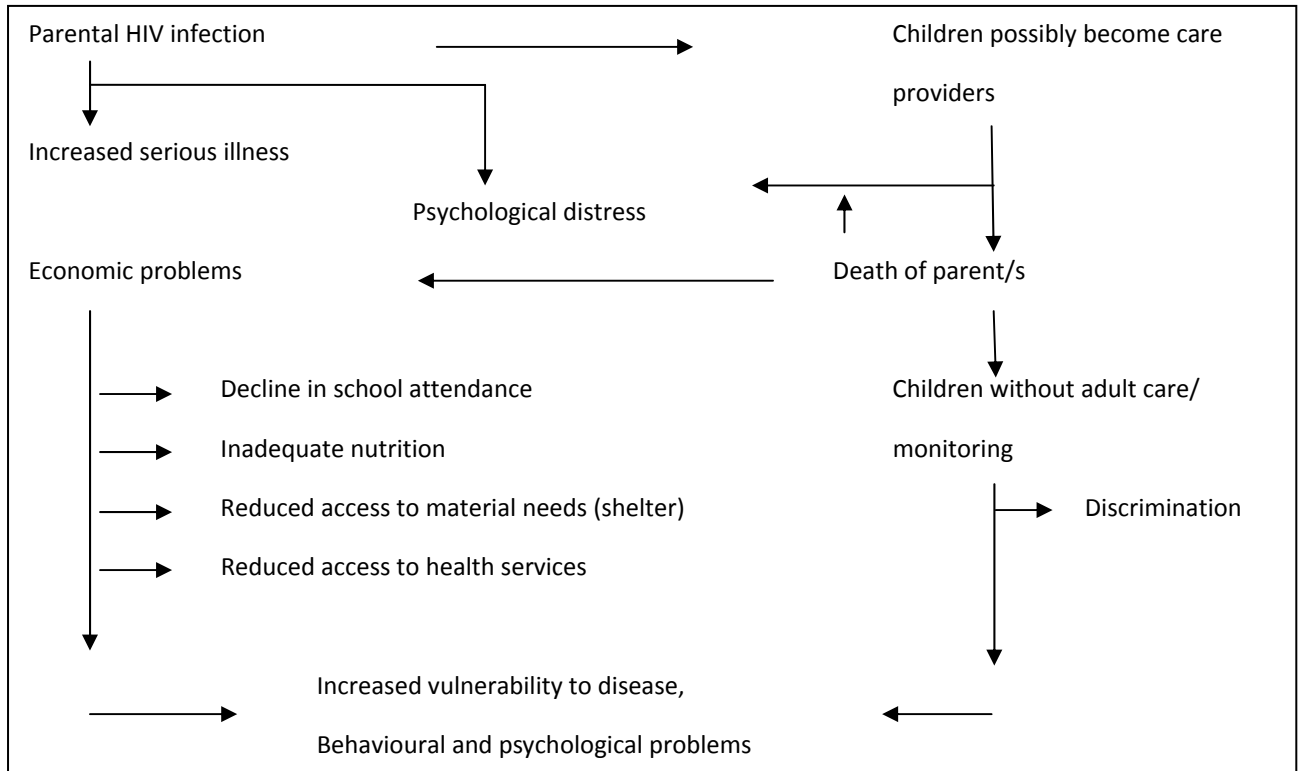
Figure 2.1   Problems associated with children and families living in and HIV/AIDS context (Adapted from Foster & Willamson, 2000, p. s278)

2.3.2   The developmental stages of six year old children

The period from approximately six to twelve years old is known as the middle childhood years. It is a period in children's lives that is characterised as relatively calm and stable in relation to the preschool and adolescent years. However, it is still a vital period in terms of children's emotional, cognitive and self-concept development. Development in these areas enables children to attain an enhanced understanding of their world. The school environment and especially peers start to play an important role in the contribution towards children's development. Nonetheless, the family and especially the parents still play a significant role in the child's life (Green, 2001). Balanced and stable development during these years provides a concrete foundation for development later in life (Louw & Louw, 2007), as children acquire a more differentiated sense of identity and learn to regard themselves either positively or negatively (Green, 2001).

Children should master certain developmental tasks during the middle childhood years. These include refined motor development, the determination of gender-role identity, various cognitive

skills, expansion of knowledge, greater social participation, increasing self-knowledge and the further development of moral judgement and behaviour (Louw *et al.*, 1998). Children acquire attitudes, skills and behaviours in accordance with what is valued by their context and culture. The quality of mediation available to children enables them to use these behaviours, attitudes and skills and to reproduce them in a unique personal manner. Thus, they consolidate, expand and refine knowledge and skills gained earlier (Green, 2001). I will briefly explore the most prominent aspects of children's development from various theoretical viewpoints to achieve a deeper understanding of six-year-old children and their abilities as they relate to this study.

2.3.2.1 Cognitive and language development

According to Piaget, cognitive development progresses through a series of stages and the child must first proceed through the lower stages of cognition before any higher type of thinking can evolve. The timeframe in which children proceed through these stages may vary from child to child but the order can never vary (Wenar & Kerig, 2005). According to this point of view, children systemise and plan their activities of learning according to cognitive structures. They gather information through experiences. They have schemas that are constantly developing and becoming more complex (Maree, 2004). These schemas serve as blueprints or building blocks that enable the child to understand, predict and adapt to the environment (Maree, 2004; Thomas, 2005; Wenar & Kerig, 2005). According to Piaget's theory, development is driven by the child's efforts to adapt to the environment and this takes place through the psychological processes of assimilation and accommodation (Wenar & Kerig, 2005). Assimilation refers to the integration of new information into the child's existing schema (Thomas, 2005). Through the process of accommodation certain changes are made to the existing schema in order to take into account the new information (Wenar & Kerig, 2005). Equilibrium is achieved when the processes of assimilation and accommodation are in a state of balance (Maree, 2004; Thomas, 2005).

The cognitive development stage relevant to my study is the pre-operational stage or pre-operational thought period (Thomas, 2005), which spans from the ages of two to seven years (Wenar & Kerig, 2005). This period can be divided into two stages; pre-conceptual thinking (2 to 4 years) and intuitive thinking (4 to 7 years) (Donald *et al.*, in Van Dullemen, 2009, p. 20; Maree, 2004). The pre-conceptual thinking stage is characterised by egocentric use of language and is heavily dependent on perception in problem solving (Thomas, 2005). Here children make use of symbolic or conceptual thinking (Maree, 2004). The intuiting thinking stage is characterised by more social or communicative speech with a greater dependence on

intuitive thinking than on perception (Thomas, 2005). Here, children start to make use of symbolic functions such as language which develops rapidly during this stage (Maree, 2004; Wenar & Kerig, 2005). Thus, in the pre-operational stage, thinking becomes more complex and children begin to develop the ability to make deductions and solve problems (Eloff, 2001). However, Wenar and Kerig (2005) explain that pre-school children tend to literally believe what they see; if something visually looks different, they believe it to be different. Wenar and Kerig (2005) also explain that pre-operational children are known for their magical thinking; and because of their limited understanding of causality, they are inclined to view themselves as the reason for situations happening around them (Wenar & Kerig, 2005).

Eloff (2001) draws our attention to important attributes to consider for a better understanding of pre-operational children:

- Ego-centrism; children's thinking during this stage takes place from one viewpoint – their own. They find it difficult to understand other individuals' viewpoints, because at this stage they have difficulty in transcending their own perspective.
- Animism; this is the tendency to bestow life-like qualities on inanimate objects.
- Centration; they tend to focus on a single aspect of a given problem at a time. This is evident when pre-operational children will judge the same quantity of water in a tall glass to be different from that in a long glass.
- Transductive reasoning; pre-operational children have difficulty in understanding how and why events relate to each other as their reasoning moves from one detail to another without considering the principles that link them together.
- Irreversibility; they cannot yet understand that mental and physical changes can be made and then reversed without changing the fundamental qualities of a situation. Therefore, they have difficulty in reversing their thinking.

Eloff (2001) explains that during this stage, important development growth takes place. There is a gradual movement towards representational intelligence, which refers to the ability to try out different solutions to problems by making use of representations in the mind. Children start to realise that the basic nature of something does not change when its appearance changes. They also start to develop the ability to distinguish between the way objects appear and the way they really are.

Vygotsky emphasised the cultural, contextual and social (Maree, 2004) influences on cognitive development. This socio-cultural approach refers to thought, reasoning processes and language as formed in and through mediated social interaction (Eloff, 2001). Vygotsky believed

that cognitive structures emerge and develop through cultural interaction. The language environment (culture) in which a child is raised, is viewed as vital in determining the direction and extent of the individual's intellectual growth. Thus, children's cognitive abilities are shaped by the combination of the child's personal experiences within his or her culture and the history of that specific culture (Thomas, 2005).

2.3.2.2 Personal and social development

Social development is the process whereby children learn socially appropriate behaviours by means of social interactions with other individuals (Meyer, 1998). Children continue to discover the social world, the way it works and how to relate within it (Green, 2001). Personal development refers to the growing emotional maturity and the emergence of distinctive behaviour patterns, also known as personality (Green, 2001). Eloff (2001) states that the processes of personal and social development are fundamentally interactive.

Erikson viewed personality development as situated in the environment in which it unfolds. He believed that all individuals have the same ultimate goal throughout life – the quest for identity (Eloff, 2001). Identity is an awareness of the self as separate, autonomous and unique. It is an individual's sense of personal characteristics and a sense of the social categories to which one belongs (Green, 2001). Erikson divided the human life cycle into eight stages, each characterised by a different crisis. Each crisis is brought about by the interactions between the individual and the environment (Meyer & Van Ede, 1998). The manner in which a crisis is resolved is also influenced by the social environment (Eloff, 2001). In the middle childhood years, children face the crisis of industry versus inferiority. At this point, children have basically mastered certain skills and they learn to gain recognition by producing things. They develop a sense of industry by learning to handle the tools of their specific culture. Society provides opportunities (schooling, observation and participation in cultural activities) for children to learn and cooperate (Meyer & Viljoen, 2003) and to experience a sense of adequacy. The successful resolution of this crisis results in feelings of competence with regard to specific skills and tasks of the child's culture. The unsuccessful resolution of this crisis leads to feelings of inferiority and inadequacy (Louw & Louw, 2007).

Ricoeur (in Green, 2001, p. 87) asserts that a sense of self as unique is conferred and strengthened by an understanding of one's personal trajectory though time. Individuals construct and reconstruct their personal narratives throughout life and organise experiences into meaningful patterns, thereby creating the self. He views this sense of meaningfulness as

vital for psychological well-being. During this period of middle childhood, children construct their own differentiated and complex stories of the self. These stories are created through the meanings they assign to their individual experiences within their environments.

2.3.2.3 Emotional development

According to Wenar and Kerig (2005), emotions play a vital role in the understanding of children's development. They explain that emotions have important adaptive functions and might have maladaptive consequences if not integrated into other systems of development. Emotions generally emerge through real or anticipated interactions with other people and form part of the social environment (Salovey, 2004). Carlson and Hatfield (in Salovey, 2004, p. 32) define emotions as an inherited and acquired motivational predisposition to respond experientially, physiologically and behaviourally to internal and external stimuli. According to Mayer and Salovey (in Salovey, 2004, p. 33), emotional intelligence is an individual's capacity to reason about emotions as well as to employ emotions to assist reasoning. Thus, emotional intelligence includes children's ability to accurately identify, understand and regulate emotions in themselves and others, to understand emotional language, and to use emotions to facilitate cognitive activities and motivate adaptive behaviour (Meijer, 2006; Mayer & Salovey in Salovey, 2004, p. 33).

Evident from the definition of emotional intelligence, various processes contribute towards a child's emotional development (emotional intelligence) such as emotional expression. During middle childhood, children develop an increased capability to judge the social appropriateness of emotional expressions (Wenar & Kerig, 2005) and they can better suppress negative emotional reactions (Louw & Louw, 2007).

Emotional recognition plays a vital part in the healthy development of relationships and is a prerequisite for developing empathy and pro-social behaviour. Small children observe adults' facial expressions in order to attach meanings to certain situations (Wenar & Kerig, 2005). Thus, during the middle childhood period children have already become more accomplished at recognising and talking about their own and other people's emotions (Louw & Louw, 2007). Emotional understanding emphasises the interaction between cognitive and emotional development. The ability to identify, understand and reason about emotions in oneself and others is an important part of development and is fundamental to interpersonal, moral and self-concept development (Wenar & Kerig, 2005).

During the middle childhood years children grow in their ability to understand complex emotions. They also start to realise that one can experience more than one emotion in one particular situation. These complex emotions become more internalised and integrated with the child's sense of responsibility (Louw & Louw, 2007). Emotional regulation requires the ability to identify, understand and appropriately moderate one's feelings (Wenar & Kerig, 2005). During the middle childhood years, children show a growing awareness with regard to controlling and managing emotions to meet social standards (Louw & Louw, 2007). Salovey (2004) explains that by sharpening their emotional skills, children can more efficiently adapt to their environments and improve their interpersonal and intrapersonal problem solving skills and thereby optimise their intelligence.

2.4   CROSS-CULTURAL PSYCHOLOGY AND ASSESSMENT

2.4.1   Background to cross-cultural psychology and assessment

There has been a rapid increase in cultural diversity across the globe which has contributed to the growth of cross-cultural practices and research within the field of psychology (Byrne *et al*., 2009; Van de Vijver & Rothman, 2004). Cross-cultural psychology involves the scientific study of the influence of cultural context on the variations of human behaviour (Berry, Poortinga, Segall & Dasen, 2002) and in essence concerns human diversity (Berry, 1997). It is about seeing obvious everyday things from a different perspective (Shiraev & Levy, 2004). A central premise of cross-cultural psychology is that culture has a profound influence on human behaviour (Kim *et al*., 2000; Segall, Lonner & Berry, 1998). Another main premise of cross-cultural psychology involves addressing issues and challenges with regard to measurement in general (Byrne, *et al*., 2009; Ebersöhn *et al*., 2009) and more specifically attempting to establish equivalence for measurement instruments across diverse populations (Shweder, 2000).

Psychology, psychological assessment and the use of measures in South Africa developed against the backdrop of racial segregation and unequal distribution of resources. The earliest psychological measures were imported Euro-American measures which were adapted and standardised for withes only (Foxcroft, Roodt & Abrahams, 2005). Byrne *et al*., (2009) draw attention to the tendency in cross-cultural psychology to use assessment[9] measures that first need to be adapted for use in other cultures. In essence, the reason for this tendency is a need

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[9] For the purposes of this study, assessment measure will be the term used to describe tests, measures, instruments and assessment techniques, as it is a broader and more preferred term used in literature to describe tools used to assess human behaviour and functioning (Foxcroft & Roodt, 2005).

for assessment measures to be culturally appropriate (Foxcroft & Roodt, 2005) as very few culturally relevant measures have been developed for use in South Africa (Foxcroft, 2004). Hence, the issue of indigenisation (Ebersöhn *et al.*, 2009) and cross-cultural test adaptation (Foxcroft & Roodt, 2005).

2.4.2   The conceptualisation of cross-cultural psychology

Cross-cultural psychology has three distinct goals; firstly, to test and validate the universality of psychological theories (Berry, 1999; Berry, Poortinga & Pandey, 1997); secondly, to understand cultures within their own contexts; and thirdly, to integrate knowledge gained from the first two goals to arrive at verified universal knowledge (Berry, 1999; Kim *et al.*, 2000).

In order to better understand the field of cross-cultural psychology, one needs to consider the three approaches within this field, namely universalist, contextualist and integrationist (Kim *et al.*, 2000). From the universalist (etic) approach (Berry *et al.*, 1997), the goal of psychology is to discover universal laws of human functioning by adopting the methods and traditions of mainstream psychology (goal 1). Within this universalist approach, two different schools of thought have developed: in the one cultural differences are ignored in order to discover universal laws for human behaviour and functioning; within the second school of thought, cultural differences are recognised as important but are viewed as the representation of various stages of development (Shweder in Kim *et al.*, 2000, p. 64). From a contextualist (emic) approach, the universality of human behaviour is rejected. Scholars from this approach (Berry *et al.*, 1997) call attention to the fact that each culture should be understood from its own ecological, historical and cultural context (goal 2). The integrationist approach involves the integration of knowledge gained from cross-cultural testing of traditional psychological theories (universalist approach) with indigenous knowledge (contextualist approach) to uncover verified universal knowledge (goal 3) (Kim *et al.*, 2000).

For the purposes of this study I will focus on the integrationist approach and more specifically indigenisation as this approach emphasises the integration of knowledge generated by indigenous psychologies and cross-cultural testing of psychological theories.

2.4.3   Indigenisation

Indigenisation entails the contextualisation of psychology by adopting cross-cultural, ethno, indigenous and cultural psychological approaches (Ebersöhn *et al.*, 2009) in order to make psychology more culture-specific and sensitive to the social realities of individuals (Sinha, 1998).   Ebersöhn *et al.*, (2009) put it this way 'indigenisation of psychology denotes 'indigenising' the prevailing Euro-American discipline to be more culturally attuned, socially relevant and aligned with the ethos of individuals using the science' (p. 9).   Thus, it encourages the development of new assessment measures or the transformation of existing assessment measures for use with local populations (Sinha in Stead & Watson, 2006, p. 187).

Enriquez (in Kim *et al.*, 2000, p. 64) identifies two types of indigenisation, namely indigenisation from without and indigenisation from within.   Indigenisation from without entails the transportation and modification of psychological theories, models and concepts to fit the local cultural context.   Berry's (1980) derived etic approach where theories are adapted and modified to fit the local emic knowledge rather than assuming its universality, is an example of indigenisation from without.   Thus, indigenisation from without represents modified existing psychological theories (Kim *et al.*, 2000).   However, according to Enriquez (in Kim *et al.*, 2000, p. 65) indigenisation from without still represents an external imposition as indigenous knowledge is treated as secondary and new perspectives is basically added on to existing theoretical knowledge (Kim in Kim *et al.*, 2000, p. 65).

Indigenisation from within entails the internal development of theories, concepts and methods. Here, indigenous knowledge is the primary source of knowledge (Enriquez in Kim *et al.*, 2000, p. 65).   The indigenous psychologies approach is an example of this approach.   It argues for transformation, a shift in the scientific paradigm by using the bottom-up approach to develop theories, methods and concepts from within a culture (Kim *et al.*, 2000).   Here culture is viewed as a developing property of individuals interacting with their natural and human environments and not as a variable or summation of individual characteristics.   Individuals derive meaning, direction and coherence from their cultures (Kim *et al.*, 2000).   From an indigenous psychologies approach subjective and objective perspectives are viewed as interrelated ways of understanding reality and not two separate realities.   Research is seen as significant in discovering probabilistic understandings of the world rather than objective deterministic knowledge and the emphasis lies on practical validity (Kim *et al.*, 2000).

According to Triandis (2000) the emic approach accentuates the unique culture-specific psychological processes and the etic approach accentuate the divergent manifestations of universal psychological processes. As can be seen in literature (Berry, 1999; Kim *et al.*, 2000; Triandis, 2000), the emic/etic approaches and indigenisation from within/from without approaches is articulated as divergent and in contrast. However, Berry (1999) and Achenbach *et al.*, (2008) views the relationship between the emic and etic (insider/outsider) approaches to be complementary rather than opposing. Ho, Peng, Lai and Chan (2001) supports this view by stating that there is no need to omit the 'outsiders' views and state that it is more important to adopt a comparative framework that recognise that reality is socially constructed to achieve a common understanding between the 'insiders' and 'outsiders' in order to promote effective intercultural communication.

For the purposes of this dissertation, I adopt the stance of Berry (1999) and Ho *et al.*, (2001), in which indigenisation is seen as the complementary use of both emic and etic knowledge to advance the cross-cultural psychological discourse. The aim is to produce culturally sensitive (Adair, 1999; Ebersöhn *et al.*, 2009) research situated in global psychological knowledge in order to inform local knowledge.

2.5 CROSS-CULTURAL ASSESSMENT AND TEST ADAPTATION

2.5.1 The historical development of cross-cultural assessment practices

As previously mentioned, most available assessment measures were developed either in the United States of America or the United Kingdom and were thus standardised for Western English speaking people (Foxcroft *et al.*, 2005). The historical underlying hypothesis with regard to the development of assessment measures was that behaviour is independent of culture and that a cultural veneer is superimposed. The assumption was therefore that behaviour could be understood by means of a 'culture-free' assessment and that the most reliable results were obtained in context-free clinical situations (Pérez-Arce in Carter *et al.*, 2005, p. 386). The awareness that culture infiltrate all aspects of behaviour came to the fore with the later adoption of 'culture-common' or 'culture-fair' assessments (Rosselli & Ardila in Carter *et al.*, 2005, p. 387), where the aim was to remove as much cultural bias as possible from measures by incorporating only behaviour common across all cultures (Foxcroft *et al.*, 2005).

The use of psychological assessment measures in South Africa generally followed international trends where measures were imported and used locally. Apartheid policies and legislation also influenced test development (Foxcroft, 2004) and consequently assessment measures were developed separately for Afrikaans and English-speaking groups (Claassen in Van de Vijver & Rothman, 2004, p. 2), excluding African-language speakers. This led to bias and discrimination against historically disadvantaged groups in terms of psychological assessment practices (Van de Vivjer & Rothman, 2004). Democracy together with the promulgation of the new Employment Equity Act in 1998 drew attention to the cultural appropriateness of psychological measures for use with populations for which they were not standardised (Foxcroft *et al.*, 2005; Van de Vijver & Rothman, 2004) and changed the landscape of psychological assessment practices in South Africa (Van de Vijver & Rothman, 2004).

2.5.2   Cross-cultural adaptation of measures

Van de Vivjer and Rothman (2004) note that one of the goals of assessment practices should be to validate existing measures for cross-cultural use. Similarly, the authors Byrne *et al.*, (2009) and Foxcroft and Roodt (2005) emphasise the importance of selecting and using reliable assessment measures in psychological practices and research, as the uncritical administration and use of these measures can lead to erroneous inferences. The main concern when using assessment measures across diverse cultural groups is construct equivalence (Ebersöhn *et al.*, 2009) - the extent to which item content on an assessment measure is similarly perceived by individuals and whether the underlying constructs being measured are similarly constructed across the groups measured (Foxcroft *et al.*, 2005). Van de Vijver and Rothman (2004) support this view and point out the importance of the establishment of equivalence of existing measures, defining new norms, developing new instruments and studying validity-threatening factors in assessment to enhance the validity of measures for all cultural groups.

Test adaptation refers to the process whereby an existing measure is made more applicable for a specific cultural or language group while retaining the original meaning and using the same language in which the test was developed. The words, contexts and examples are changed to be applicable to a specific cultural group. Test translation also entails retaining the original meaning, but refers to the process whereby a measure is converted from one language to another or multiple languages (Kanjee, 2005). Therefore, existing measures are adapted in order to enhance fairness by ensuring the measures portray cultural relevance, equivalence and is unbiased (Foxcroft, 2004). Test adaptation also has the advantage of saving time and

costs, facilitating comparative studies in cross-cultural psychology and the ability to compare newly developed measures with established measures (Kanjee, 2005).

2.5.3   Culture within the context of cross-cultural assessment

A discussion of cross-cultural assessment requires a clarification of the term culture. Culture is a difficult concept to define, as there is no general agreement about the meaning of culture and numerous definitions exist in different disciplines (Shiraev & Levy, 2004; Smolka *et al.*, 2000; Stead & Watson, 2006). Scholars (Smolka *et al.*, 2000; Stead & Watson, 2006) agree that culture cannot be regarded as univocal or homogeneous.

Herskovits (1948) referred to culture as the human-made part of the environment. More specific definitions view culture as a wide range of settings in which behaviour takes place (Shiraev & Levy, 2004). As defined by McCubbin and McCubbin (2005) 'Culture is the sum of knowledge passed on from generation to generation within a given society' (p. 40). Cramer (2004) conceptualises culture as 'a group of individuals who share common stories to interpret and provide meaning to their lives' (p. 4). Most definitions of culture therefore centre on ideas, values, practices, norms and self-definitions (Shiraev & Levy, 2004).

According to Suzuki *et al.*, (2006) culture is influenced by the political, historical, experiential and socio-economic environment. It creates the foundation through which thoughts and emotions are understood and through which meanings of experiences are inferred. Louw, Van Ede and Louw (1998) are of the opinion that culture influences children's manner of play, their thoughts and their behaviour. McCubbin and McCubbin (2005) explain that cultural meaning systems have both a directive function and an evocative function by guiding individuals in their behaviour and by creating rules for how they feel. Therefore, culture is dynamic (Louw, 2004) and vital to the understanding of human behaviour (Louw, 2004; Segall *et al.*, 1998).

2.6   THE DüSS FABLES AND THE PSYCHOLOGICAL ASSESSMENT OF YOUNG CHILDREN

2.6.1   Background and use of the Düss fables as projective assessment technique

Within literature there is a lot of criticism and controversy about the appropriate use of projective assessment techniques (Garb, Wood, Lilienfeld & Nezworski, 2002; Lilienfeld, Wood & Garb, 2000; Merrel, 2008), even though they remain popular for the assessment of the socio-

emotional functioning of children (Lilienfeld *et al.*, 2000; Merrel, 2008). Projective techniques are characterised by vague, ambiguous stimuli, pictorial or otherwise (De Bruin, 2005). Teglasi (2001) describes the characteristics of projective techniques as sufficiently ambiguous in order to prevent a prepared response and thus requiring interpretation; diversity in approaching tasks and open-ended responses to maximise the imprint of organisation. An assessment using projective assessment techniques presents the respondent with vague stimuli which have to be disambiguated or interpreted. In some cases, the projective technique requires a response (a picture) following an open-ended question. These techniques allow respondents flexibility to responses. Thus, they differ from structured techniques with regard to both the stimulus which is more ambiguous and the responses elicited, which are more varied and flexible (Lilienfeld *et al.*, 2000).

The underlying foundation for most projective techniques is the projective hypothesis. According to this hypothesis, when individuals try to understand these vague stimuli, their interpretation thereof reflects their needs, feelings, experiences, thought processes, prior conditioning (Kaplan & Saccuzzo, 2001) and aspects of their personalities (Lilienfeld *et al.*, 2000). Freud (1911) firstly introduced the concept of projection, which he viewed as defence mechanisms whereby individuals unconsciously attribute their negative personality traits and impulses onto others ('classical projection') (Lilienfeld, *et al.*, 2000). However, Sundberg (in Lilienfeld *et al.*, 2000, p. 29) states that most projective techniques draw on 'generalised' or 'assimilative' projection, which is the somewhat uncontroversial tendency of individuals' personality characteristics, needs, and life experiences to influence the interpretation of ambiguous stimuli. Merrel (2008) states that the central premise of projective techniques is the assumption that responses to ambiguous stimuli represent projections of the child's unconscious psychological processes. However, Merrel (2008) adds that more recently, humanistic approaches have been incorporated and that postmodernism and constructivism also seem to be conceptually aligned with projective assessment techniques. All projective techniques have in common a set task that allows the expression of uniqueness in perceiving the task demand and the organisation of the response (Teglasi, 2001). Projective techniques enable respondents to respond in a manner in which they might otherwise not feel able to respond (Boddy, 2005).

Projective techniques have been categorised into five types (Lilienfeld *et al.*, 2000) with regard to the nature of responses required by the respondents. The categories are association, construction, expression, completion (Donoghue, 2000), and arrangement or selection techniques (Catterall & Ibbotson, 2000; Lilienfeld *et al.*, 2000). The Düss fable falls into the

category of completion techniques, as the child is presented with an incomplete story and an open-ended question (Burns & Lennon in Donoghue, 2000, p. 49).

The Düss fables, also known as the Despert fables are a projective assessment measure that is particularly appropriate for use with children (Peixotto, 1960), mostly between the ages of three and ten years (Peixotto, 1956). However, further research has suggested that this technique is most suitable for use with children under the age of eight (Peixotto, 1957). This assessment measure consists of incomplete stories that end with a question and thus need to be completed by the child (Peixotto, 1956). The original set of incomplete stories was first published by Louisa Düss in Europe (Peixotto, 1957). It was then translated into English by the psychiatrist Louise Despert and later further adapted and lengthened by Fine (Peixotto, 1956). Fine found the Despert fables enormously useful for eliciting information about children's interpersonal relationships (Symonds & Hessel, 1950).

The Düss fables examine mental representations and recollections of events with strong emotional value, whether partially conscious or unconscious, related to significant experiences of the child's development and emotional condition (Vallone, Addona, D'Elia & Vicari, 2009). The stories are suggestive of various affective themes (King, 1995). Peixotto (1956) explains: 'in the fables the child completes a story and thus reflects psychodynamic material and feelings relevant to a situation as the story portrays' (p. 75). Peixotto (1956) is also of the opinion that the story (narrative) technique has certain advantages over general thematic tests which use pictures as stimuli, as the first response of very young children (between ages 3 and 4) to pictorial stimuli is description and not interpretation.

2.6.2 Stories and narratives as assessment techniques with young children

As is evident from the description of the Düss fables, it is a completion projective technique which uses narratives or stories to examine a child's mental representation of conscious and unconscious needs, feelings, thought processes, prior conditioning and experiences (Vallone *et al.*, 2009). Therefore, I will discuss narrative[10] assessment measures and storytelling techniques.

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[10] For the purposes of this dissertation, narrative measures and story-telling techniques are used interchangeably as they signify the same concept, because 'a story is a narrative' (Cramer, 2004, p. 6).

According to Kramer-Moore (2010), there is a close association between narratives and projection. The author (Kramer-Moore, 2010) states that 'the act of narrating is, almost by definition, a potential projective test' (p. 135). Esquivel and Flanagan (2007) explain narrative assessment measures as qualitative methods used for understanding the implicit meaning of individuals' personal accounts, histories, autobiographies and other sources of narrative communication. The theoretical foundation for the use of narratives is derived from various related disciplines, including an interpretive approach, narrative conceptualisations of human knowledge and personal-social constructivist approaches (Gergen and Polkinghorne in Esquivel & Flanagan, 2007, p. 271). Narrative psychological assessment also has a direct connection to a personological paradigm of personality assessment, which is fundamental to the thematic apperception techniques (Wiggins in Esquivel & Flanagan, 2007, p. 273). The use of narratives in psychology is based on the philosophical view that individuals construct their own personal stories about life circumstances based on their interpretation of past experiences in correlation to others' narratives and according to cultural constructs of reality (Esquivel & Flanagan, 2007).

According to McAdams and Bowman (in Esquivel & Flanagan, 2007, p. 271) the storytelling interaction between an individual and the contexts (social and cultural) provides the individual with a sense of identity, a sense of belonging, stability, and meaning to life experiences. Teglasi (2001) states that storytelling makes distinctive contributions to assessment and it is up to practitioners to weave together various approaches that fit their theoretical framework as there are no agreed upon interpretive system. Matthews and Bouwer (2009) supports this view by stating that the value of projective storytelling techniques is widely recognised even though the technique has pitfalls such as various methods of interpretation. Teglasi (2001) and Cramer (2004) is of the opinion that storytelling provides rich, versatile and complex information about children's resources in unfamiliar, complex or stressful situations which would be difficult to obtain otherwise. Cramer (2004) states that each story told are an explanation of the individual's psychological realities and even though individual realities sometimes have common characteristics each story is personally unique.

2.6.3 Cross-cultural use of narrative projective techniques with young children

According to Sunderland (in Matthews & Bouwer, 2009, p. 231) storytelling is a method through which children's perception of their realities find a more complete representation than by direct description. Cramer (2004) is of the opinion that narratives could be considered as a form of communication through which children present their experiences. When telling stories, children project ideas from their own lives onto the characters and themes (Geldard & Geldard, 2002).

Thus, within the themes, details and nuances of the stories the individual child's life schemas are manifests (Cramer, 2004). As previously mentioned, culture shapes behaviour, values and ideals (Grieve, 2005; Shiraev & Levy, 2004) and therefore cultural experiences influence the meaning individuals attach to events and consequently responses to stories and items on assessment measures will vary among cultures (Grieve, 2005). According to Grieve (2005) variance amongst responses are particularly pertinent to projective measures and that different responses should be viewed as a function of the individual's culture rather than deficient. Merrel (2008) suggests that projective assessment techniques can be useful in providing information relating to an individual's own personal perspective or worldview.

According to Dana (2007) the cross-cultural use of projective assessment techniques are appropriate especially when used with individuals from cultures that use storytelling and drawings in everyday life and advance ambiguous forms in rituals. Thus the inference can be made that qualitative approaches and projective assessment techniques such as storytelling can be particularly valuable when used cross-culturally (Barrera in Losardo & Notari-Syverson, 2001, p. 8). According to Phillion (2008) Cross-cultural narrative inquiry is being developed as a means of portraying lives lived and expressed across cultures and languages. It is evolving in response to a need for research to be relevant to social issues (Landson-Billings & Tate in Phillion, 2008, p. 285). Consequently, practitioners commonly use storytelling techniques for assessment and therapy with children and adolescents cross-culturally (Esquivel & Flanagan, 2007).

2.7   THE UTILITY AND VALIDITY OF THE DüSS FABLES AS PROJECTIVE MEASURE

2.7.1   The utility of projective assessment measures

Kaplan and Saccuzzo (2001) explain that one of the main concerns in assessment is the utility or adequacy of the existing measures. The utility of projective measures is a function of both the psychometric properties of the measure as well as the skill and insight of the practitioner responsible for the administration and interpretation (Zeman, Klimes-Dougan, Cassano & Adrian, 2007). Kaplan & Succuzzo (2001) also state that the utility of measures relates to the way in which they are used. Merrel (2008) comments specifically on the utility of projective techniques and states that the problems often criticised are not inherent to the projective techniques but rather in the way they are used. Kaplan & Succuzzo (2001) explain that even though instruments may sometimes be imperfect they can still be useful, providing they supply information that leads to better understanding than can otherwise be obtained. Lilienfeld *et al.*,

(2000) supports this view by stating that projective techniques need to contribute psychological information above and beyond more easily collected data to justify their use. Many clinicians and researchers view projective techniques as significant in the assessment of children and adolescents as it provides a distinctive window into their 'inner life' (Merrel, 2008). Thus, the vital social issue with regard to measures is whether they will serve a functional purpose in society (Kaplan & Succuzzo, 2001).

2.7.2 The validity of projective assessment measures

Neukrug and Fawcett (2010) state that to demonstrate a measure's utility (worthiness) four areas should be analysed namely; validity, reliability, cross-cultural fairness and practicality. Within literature and practice there is a lot of controversy with regard to the reliability, validity and appropriate use of projective techniques (Merrel, 2008). According to Lilienfeld *et al.*, (2000) the validity of projective techniques are complex and cannot be answered straightforwardly. They argue that the construct validity of some projective measures is more supported than others. They conclude by arguing that projective techniques are not valid or invalid per se but rather more or less valid for certain assessment purposes and contexts. This view is reflected by the findings of a study conducted by Peixotto (1960) in which the author concluded that the Düss Fables may reflect psychodynamic content of children's consciousness or unconsciousness but that this measure has little value for differential diagnosis. Thus, it is valid for the examination of conscious and unconscious workings of children but not for diagnosing pathology.

Merrel (2008) indicate that little has been written about the appropriate use of projective assessment techniques. From a school psychology perspective Flanagan (2007) concur and state that within literature limited direction has been given with regard to the use of projective measures, especially with diverse populations, even though these techniques remain amongst the most popular and frequently used in practice (Lilienfeld *et al.*, 2000; Merrel, 2008). Merrel (2008) suggest and describes some appropriate uses and advantages of projective techniques in the social-emotional functioning of children. One use is to establish rapport with the child as children often find these techniques enjoyable and non-threatening. Another appropriate use of these techniques is to use them as a mode of communication with shy, verbally disinclined children as well as young children who are not yet verbally sophisticated respond to direct questioning. Projective assessment techniques can aid practitioners in understanding the child, especially from the child's own perspective (emic knowledge) or worldview.

2.8   THEORETICAL FRAMEWORK

2.8.1   The ecological and social cross-cultural model (Georgas, 1988, 1993)

Georgas (1988, 1993) presented a model that draws on both Berry's ecocultural framework and Bronfenbenner's ecological systems theory. This model links the individual to ecological characteristics, social phenomena and interpersonal relationships, particularly the family and the immediate community. This model is represented by embedded concentric circles (Dasen, 2003). The radius of each circle symbolises the weight and degree to which the elements influence the psychological differentiation of the individual (Georgas in Dasen, 2003, p. 137). The adjacent circles are connected by reciprocal interactions while the outer circles indirectly influence the individual through moderator variables (Dasen, 2003).

Within Bronfenbenner's (1989, 1993) ecological systems theory the developing child is central; dynamically interacting with the environment through bidirectional, reciprocal influences. The human environment is part of a larger cultural system and both are viewed as open interchanging systems. He divides the ecological environment into four interdependent categories (Shiraev & Levy, 2004; Thomas, 2005). Firstly, the microsystem consists of patterns of activities, roles and interpersonal relationships experienced by the child. Secondly, the mesosystem comprises of the child's immediate behaviour setting such as the school, home and peer-group microsystems. Thirdly, the exsosystem is the next phase outside the mesosystem which indirectly influence the child (parents' workplace). Fourthly, the macrosystem is composed of the cultural milieu; societal expectations, values and beliefs (Dasen, 2003; Shiraev & Levy, 2004; Thomas, 2005). Therefore, individual development takes place within a composite of various settings or 'developmental niches' (Harkness & Super in Shiraev & Levy, 2004, p. 15). There are physical and social settings in which individuals live, it includes the people, services and available products. There are customs and practices that communicate messages to and from the individual. There are also caretakers' beliefs and expectations regarding children and their rearing. Children's development is mediated through these settings within the larger culture (Shiraev & Levy, 2004).

Berry's eccocultural framework is rooted in two basic assumptions, namely universalism and adaption (Berry & Ward, 2006). Thus the fundamental idea underlying Berry's ecocultural framework is that all psychological phenomena are essentially viewed as adaptations to specific cultural and ecological contexts (Lonner & Adamopoulos, 1997). Firstly, it is assumed that human societies exhibit cultural universals. Psychological processes such as perception,

learning and personality are shared by all humans, and cultural influences cause variations during development and daily activities. Secondly, it is assumed that human behaviour is differentially developed and expressed in reaction to ecological and cultural contexts (Berry & Ward, 2006). The ecological context refers to the natural settings in which humans and the environment interacts. This includes the economic activity of the population and takes into account the impact of factors such as food availability, quality of nutrition and population density on individuals. The socio-political context refers to the extent to which people partake in global and local decisions. This includes various ideological values, organisation of the government and the absence or presence of political freedom. Within this framework it is believed people adjust to existing realities and acquire roles as members of a particular culture through genetic transmission, cultural transmission and acculturation. Biological, ecological, cultural and acculturation factors should be considered in order to understand differences and similarities in human behaviour (Shiraev & Levy, 2004).
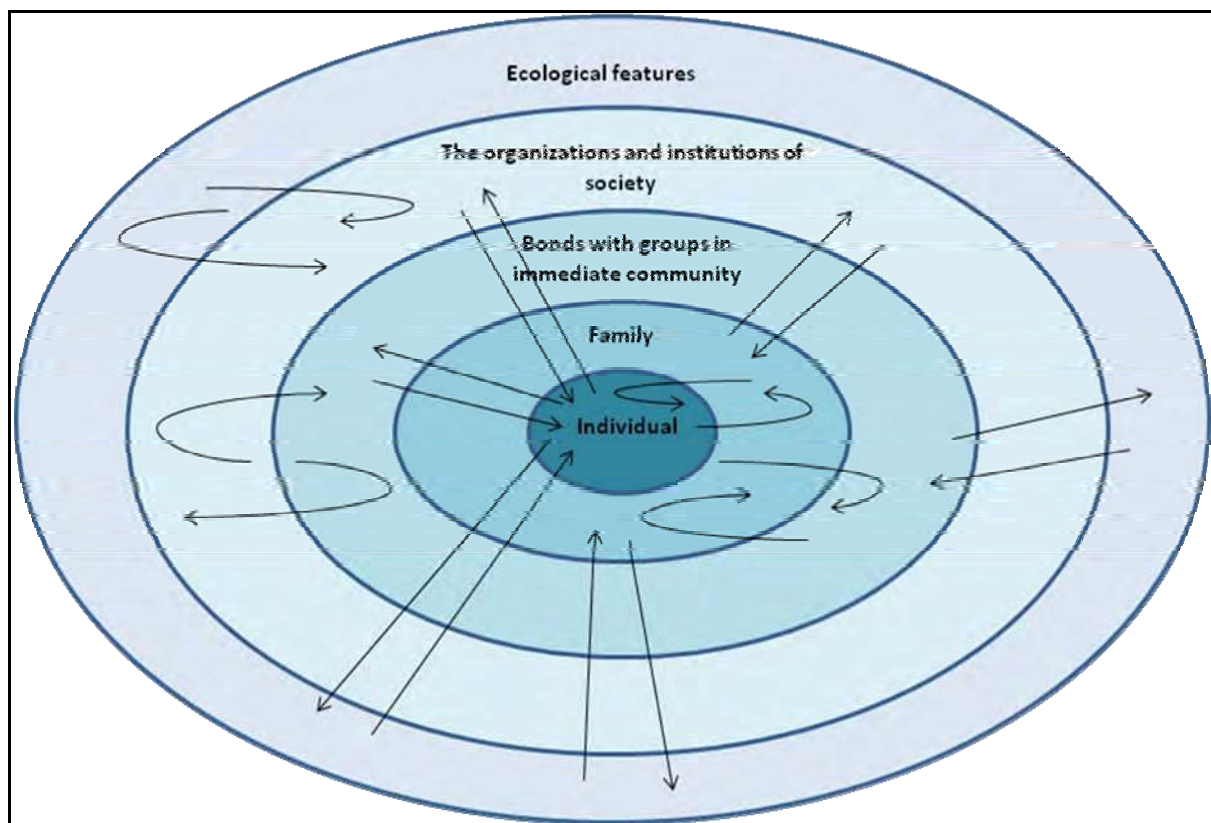
Figure 2.2   The ecological and social cross-cultural model
(Adapted from Dasen, 2003, p. 137)

The ecological and social cross-cultural model based on the ecocultural framework and the ecological systems theory, emphasise that human behaviour can only be understood within the

contexts in which it develops and takes place (Shiraev & Levy, 2004). As this model highlights the importance of the child, family and community (Dasen, 2003) functioning within the larger culture, it will serve as theoretical framework for this study.

2.9 WORKING ASSUMPTIONS

Following from the aforementioned literature study I formulated certain assumptions (Lachman, Lachman & Butterfield, 1979; Renninger & Sigel, 2006) concerning the utility of a Düss fable for the measurement of resilience in young children. Therefore, I approach this study with certain assumptions in mind which I will briefly discuss below.

- Children's internal protective resources (resilience) such as personality traits, dispositional characteristics and biological attributes interact with various external protective resources to activate resilience traits within a person.
- The Düss fable is a developmentally appropriate tool which will elicit data on resilience with regard to young children's emotions, experiences and the meanings they attach to their experiences.
- The Düss fable will be useful to measure resilience in young children and give insight into both the individual and environmental risk factors as well as protective resources available to these children.
- The Düss fable will have utility as cross-cultural measure of young children's resilience.

It is evident from the ecological and social cross-cultural theoretical model (Dasen, 2003) that children's behaviour develops in the social and cultural contexts in which they live and therefore behaviour and subsequently resilience can only be understood within the contexts in which it develops and takes place. Therefore, children do not function in isolation but within certain systems (family, school, peer-group) within a larger community, culture and country. All these systems and contexts are in interaction with one another and directly or indirectly influence all levels of development and behaviour (Berry & Ward, 2006; Dasen, 2003; Maree, 2004; Shiraev & Levy, 2004; Thomas, 2005). Literature shows that not all children faced with adversity will develop behavioural and/or socio-emotional problems. Individuals are born with certain intrinsic protective resources such as personality traits, dispositional characteristics and biological attributes which interact with other systems and various contextual and cultural factors in activating or eradicating resilience traits within an individual. A child's environment needs to provide certain protective resources for the child to access to promote the development of resilience (Boyden & Mann, 2005; Ebersöhn & Eloff, 2002; Ebersöhn & Maree, 2006;

O'Dougherty Wright & Masten, 2006; Rolfe, 2002; Theron and Theron, 2010; Ungar, 2005; Ungar, 2008; Ungar *et al.*, 2008).

Literature also shows (Cramer, 2004; Dana, 2007; Esquival & Flanagan, 2007; Flanagan, 2007; Kaplan & Succuzzo, 2001; Lilienfeld *et al.*, 2000; Merrel, 2008; Peixotto, 1960; Ricoeur in Green, 2001, p. 87; Symonds & Hessel, 1950) that the Düss fable as narrative projective technique will be a valuable tool to be used for the measurement of resilience in young children living within in the multi-cultural South African context. As previously mentioned six-year-old children construct their own differentiated stories of themselves according to meanings they assign to their experiences within their environments. However, as these children are in the pre-operational thought period and characteristically displays ego-centrism, animism, centration and transductive reasoning (Eloff, 2001) they might find it difficult to verbalise their thoughts, feelings and emotions. Thus, the use of stories as projective technique would be developmentally appropriate for the assessment of young children's experiences, the meanings they attach to experiences, their underlying emotions and resilience. The Düss fable would be especially functional to use with children from African cultures and languages as storytelling forms part of their cultural rituals and customs.

2.10   SUMMARY

In this chapter I discussed all the concepts as it relates to my study. I explored the concept of resilience and discussed the various definitions thereof. I took a closer look at the global and local development of indigenisation and assessment practices grounded in cross-cultural psychology. Furthermore, I discussed the Düss fable as narrative projective assessment techniques as well as its utility for the cross-cultural assessment of children. I also described the ecocultural and social cross-cultural model and its theoretical underpinnings which serve as the theoretical framework for this study. Lastly, I briefly discussed the working assumptions with which this study was approached. In the next chapter I will discuss the research methodology that is fundamental to the empirical part of my study.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

In this Chapter I describe the research process that was followed during this study. I discuss the purpose of the study and describe the paradigmatic perspective employed. I discuss the research design, as well as the strengths and weaknesses of the particular design. I also mention the ethical considerations relating to the study as well as the arguments with regard to the trustworthiness of the data.

3.2 AIM OF THE STUDY

The aim of the study was to determine the utility of a Düss fable (story[11]) for cross-cultural measurement of resilience in young children, by comparing Düss themes with CBCL scores. Thus, I aimed to explore the utility of a Düss fable for measuring resilience in young children cross-culturally.   The advantage of having an exploratory aim for this study is that the researcher's curiosity about and the desire for better understanding of the phenomena (measurement of resilience using a Düss fable) can be satisfied (Babbie, 2005). To explore a topic is to familiarise oneself with the subject and to gain insight into a specific phenomenon. Exploratory studies are valuable, especially when the topic under study is relatively new and provides new insight into a topic for research. The main limitation of an exploratory study relates to the representativeness of the study to the larger population (Babbie, 2005). However, the aim of this study is to gain insight into and achieve a better understanding (Babbie, 2005) of the above mentioned phenomenon rather than to generalise the findings to the larger population.

3.3 PARADIGMATIC PERSPECTIVE

A paradigm is a framework for observation and understanding (Babbie, 2008). It determines the way in which one views the world and is a general orientation about the world and the nature of research (Creswell, 2009; De Vos, 2005; Maree & Van der Westhuizen, 2009; Teddlie & Tashakkori, 2009).   Hitchcock and Hughes (in Cohen, Manion & Morrison, 2000, p. 3)

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[11] For the purpose of this dissertation the term fable and story are used interchangeably.

suggests that ontological assumptions lead to epistemological considerations, and these in turn bring about considerations with regard to data collection and documents. According to Creswell and Plano Clark (2007), ontology refers to the nature of reality, whereas epistemology refers to how we gain knowledge of what we know. Teddlie and Tashakkori (2009) describe methodology as a 'general approach to scientific inquiry involving preferences for broad components of the research process' (p. 21), and methods, as the specific strategies for conducting the research. During the study I followed a mixed method (Creswell & Plano Clark, 2007) methodological paradigm anchored in pragmatism as metatheoretical paradigm.

3.3.1 Metatheoretical paradigm

As previously mentioned this study was conducted from a pragmatism paradigm. According to Johnson and Onwuegbuzie (2004) the goal of pragmatism is to find a middle ground between philosophical rigidity and scepticism related to quantitative, qualitative and mixed research to find a workable solution. They (Johnson & Onwuegbuzie, 2004) also note that pragmatism offers an immediate and useful methodological and philosophical middle ground, with practical and outcome-orientated methods of inquiry. It also offers a method for selecting methodological mixes that can assist researchers to find better answers to many of their research questions.

Pragmatism is not committed to one system of philosophy and reality. Thus, it enables researchers to choose methods, techniques and procedures that best meet their needs and the purposes of the study (Creswell, 2009). From a pragmatic stance qualitative and quantitative methods are viewed as compatible, rejecting the notion that objectivity and subjectivity are in direct contrast with one another. They view epistemological issues on a continuum rather than on opposing poles (Teddlie & Tashakkori, 2009). Pragmatists believe in an external reality as well as a reality within one's mind (Ivankova *et al.,* 2007; Teddlie & Tashakkori, 2009). Within pragmatism, the focal point is on the primary importance of the research question asked rather than the methods used (Creswell & Plano Clark, 2007; Maxcy in Ivankova *et al.,* 2007, p. 263) and the multiple methods of data collection inform the research problems under study (Creswell & Plano Clark, 2007). Thus, 'the truth is what works best at the time' (Creswell, 2009, p. 11); researchers use both quantitative and qualitative data because they provide the best understanding of a particular research question (Creswell, 2009). Pragmatism is classically associated with mixed method research (Creswell & Plano Clark, 2007).

Pragmatism does not offer a specific clear-cut plan for conducting research nor does it give a specific set of research methods (Badley, 2003). This can be a potential difficulty, as the

researcher needs to ensure that the research design, methods and strategies used during the research complement one another to ensure that the study is valid and reliable. To address this difficulty, I firstly ensured that the chosen design could effectively answer the research questions (Creswell & Plano Clark, 2007; Sosulski & Lawrence, 2008); secondly, I acquired an understanding of the different qualitative and quantitative methods and strategies that could possibly be implemented during the research study (Creswell & Plano Clark, 2007).

3.3.2   Methodological paradigm

As stated, I conducted this study from a mixed methodological paradigm. Johnson and Onwuegbuzie (2004) defines mixed method research as 'research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study' (p. 17). Similarly, Creswell (2009) states that mixed method research is 'an approach to inquiry that combines or associates both qualitative and quantitative forms' (p. 4). Thus, it entails the simultaneous use of both quantitative and qualitative approaches simultaneously (Creswell, 2009). The fundamental argument of mixed method research is that the use of a combination of quantitative and qualitative approaches provides a better understanding of research problems than either approach alone (Creswell, 2009; Creswell & Plano Clark, 2007). For the purpose of this study, the main objective for conducting mixed method research was to compare the qualitative and quantitative data sets to produce well-founded conclusions (Creswell in Maree, 2007, p. 261). Thus, using a mixed method approach enabled me to compare the quantitative (CBCL scores) and qualitative (resilience themes from Düss fables) data sets to produce well-validated conclusions (Creswell, 2009) with regard to the utility of a Düss fable for cross-cultural measurement of resilience in young children.

Mixed method research is difficult as the researcher should be familiar with the underlying foundations and methods of both quantitative and qualitative approaches. It is time-consuming to collect and analyse both quantitative and qualitative data (Creswell & Plano Clark, 2007; Johnson & Onweugbuzie, 2004). It can prove difficult to compare analysed data of different forms (Creswell, 2009; Teddlie & Tashakkori, 2009). I dealt with these issues by familiarising myself with the foundations of both qualitative and quantitative research and by using existing data. During the data analysis I employed the help of individuals knowledgeable in the field of quantitative and qualitative data analysis.

3.4   RESEARCH DESIGN

I made use of a concurrent mixed method research design (Creswell & Plano Clark, 2007) where I analysed both sets of data, quantitative and qualitative, concurrently. I then compared the two sets of data to determine the convergence (triangulation) of the data (in this instance the measurement of resilience) (Creswell & Plano Clark, 2007; Creswell, 2009). I present the research process in Figure 3.1.
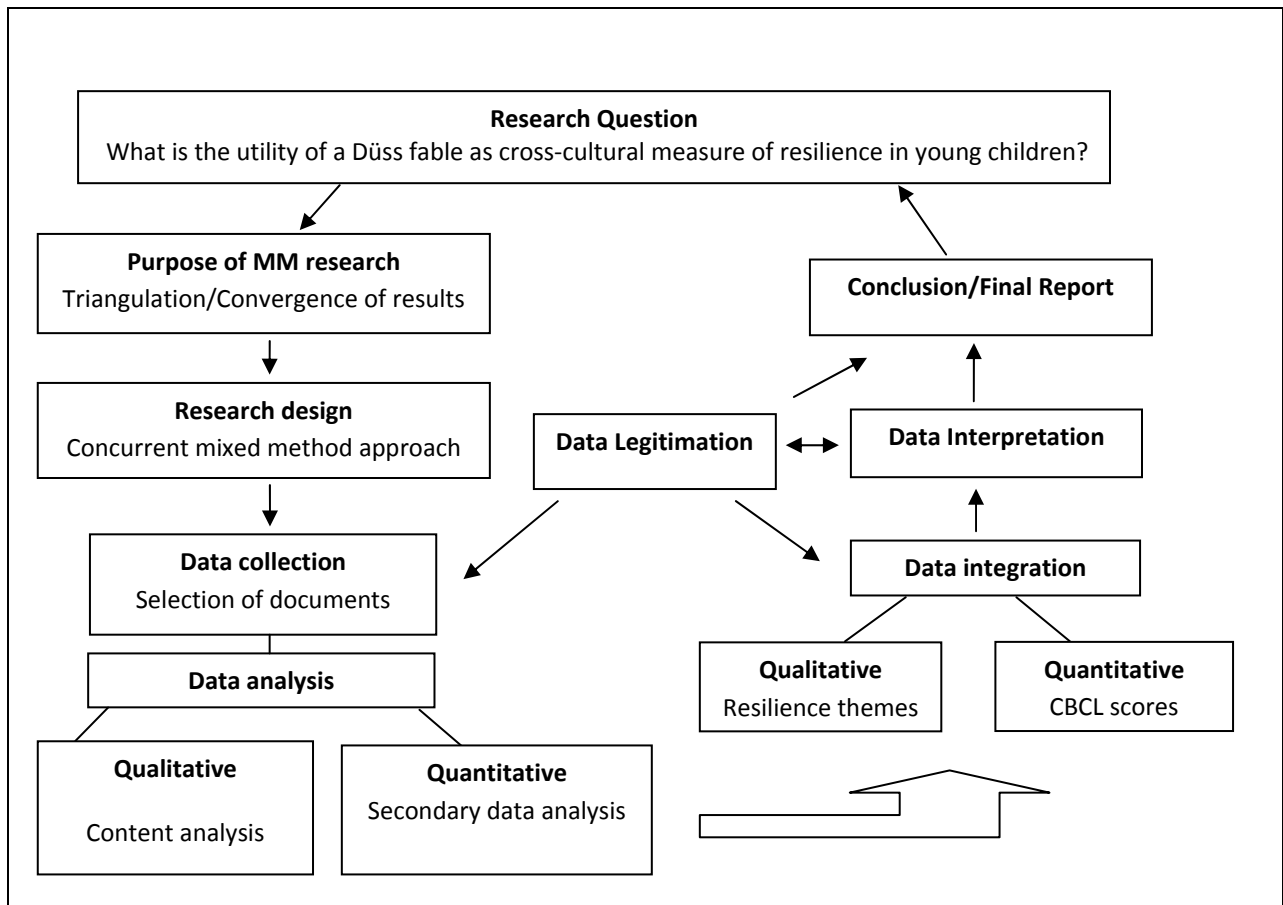
Figure 3.1   The concurrent mixed method research process followed in the study
               (Adapted from Johnson & Onwuegbuzie, 2004, p. 23)

The concurrent mixed method design is also referred to as the 'concurrent triangulation design' (Creswell *et al.*, in Creswell & Plano Clark, 2007, p. 64; Ivankova *et al.*, 2007). This design generally involves the simultaneous, but separate collection and analysis of both qualitative and quantitative data with the aim of better understanding the particular research problem (Plano Clark, Huddleston-Casas, Churchill, O'Neil Green & Garret, 2008). According to Creswell and Plano Clark (2007) there are four main variants of the triangulation design. As previously

explained, I used the convergence model which represents the traditional model of a mixed method triangulation design. This description is in accordance with the specific features of the current study, as the aim of my study was to compare the results from quantitative data with the qualitative findings to have valid and well-substantiated conclusions (Creswell & Plano Clark, 2007) about the utility of a Düss fable for cross-cultural measurement of resilience in young children.

I made use of the concurrent mixed method to triangulate data and test the utility of a Düss fable for cross-cultural measurement of resilience, by comparing the themes of resilience from the Düss, with data gained from the CBCL.

The combined use of qualitative and quantitative methods can provide a better understanding of the research problem than either approach alone. Mixed methods contribute strengths that balance out the weaknesses of both qualitative and quantitative research. This type of research is practical as researchers are at liberty to use all the tools of data collection. Researchers are also allowed to use all possible methods to address a research problem. Thus, it provides for more comprehensive evidence and stronger inferences (Johnson & Onwuegbuzie, 2004; Tedllie & Tashakkori, 2009) for studying a research problem. Mixed methods can be helpful in answering questions that cannot be answered by either quantitative or qualitative approaches alone. They encourage researchers to collaborate across quantitative and qualitative research relationships. The use of multiple worldviews or paradigms is advocated (Creswell & Plano Clark, 2007; Tedllie & Tashakkori, 2009).

3.5   SELECTION OF DOCUMENTS

I purposefully selected the data (documents) (Maree & Pietersen, 2007; Teddlie & Tashakkori, 2009) from existing Kgolo Mmogo data. Specifically, I selected existing qualitative (Düss stories) and quantitative (CBCL) data of six-year-old children. The data was collected as part of baseline assessment by a well-trained[12] team of research assistants consisting of psychologists, nurses and persons trained in the field of HIV/AIDS.

The participants of the Kgolo Mmogo project were selected on the basis that their mothers were infected with HIV/AIDS. In addition, the participants had to be between the ages of three and

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[12] The research assistants were trained care workers, supervised by qualified social workers who received manuals with their planning, materials for the sessions as well as debriefing and goals for each session (Eloff, 2008). Other team members were psychologists and nurses with knowledge of HIV/AIDS and child development.

ten years, living in the care of their mothers. The selection criteria for my specific sample of documents were the following: the documents had to be completed by participants between the ages of five years and six months and six years and eleven months; furthermore, both the assessment measures [CBCL (quantitative) and the Düss story (qualitative)] had to be completed for each participant. The CBCL had to be completed by the mother and the Düss story had to be completed by the child (with assistance from a research assistant). In Table 3.1 I present an overview of the participants (n = 19, 8 = male, 11= female) to whom the documents relates.

Table 3.1   General information related to the participants who generated data used in the study

Participant	Gender	Age	Mother Tongue	School	Living arrangement[13]			
					Father	Siblings	Adult family members	Child family members
302	Female	6 years 0 months	Sepedi	Pre-school	1	0	0	0
382	Male	6 years 0 months	Sepedi	Gr 1	0	1	3	0
390	Male	6 years 0 months	IsiZulu	Gr 1	0	6	3	0
432	Female	6 years 0 months	Sepedi	Gr 1	0	1	2	0
498	Female	6 years 0 months	Sepedi	Gr R	0	0	7	3
504	Female	6 years 0 months	Tsonga	Gr 1	P[14]	1	5	5
516	Male	6 years 0 months	Sepedi Setswana Tsonga	Gr 1	1	1	6	4
517	Male	5 years 8 months	IsiZulu Sepedi	Pre-school	P	0	0	1
534	Female	6 years 10 months	Sepedi	Gr 1	0	1	3	2

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[13] Living arrangements refers to all the people living in one house together with the mother and child participants.
[14] 'P' stands for partner

Participant	Gender	Age	Mother Tongue	School	Living arrangement[13]			
					Father	Siblings	Adult family members	Child family members
560	Male	6 years 0 months	Sepedi	Gr 1	P	0	1	1
602	Female	6 years 0 months	Sepedi	Pre-school	0	0	3	3
604	Female	6 years 0 months	Sepedi	Gr R	P	0	1	1
652	Male	6 years 0 months	IsiZulu	Gr 1	P	1	0	0
656	Female	6 years 0 months	IsiZulu	Gr 1	0	0	5	2
658	Male	6 years 0 months	IsiZulu	Gr R	0	1	0	0
675	Female	6 years 0 months	Setswana	Gr 1	0	0	1	2
712	Female	6 years 0 months	Sepedi	Gr 1	0	0	3	0
716	Male	6 years 0 months	Sepedi	Gr 1	0	4	0	0
721	Female	5 years 8 months	Sepedi	Gr 1	0	0	1	2

3.6   BACKGROUND TO KGOLO MMOGO

As mentioned earlier, this study forms part of the Kgolo Mmogo project - a collaborative five-year longitudinal study situated at a local hospital in Gauteng, South Africa. The project was funded by the National Institute of Health (NIH) (Eloff, 2008) and focused on developing resilience in HIV-positive mothers and their children (Eloff *et al.*, 2011). A multidisciplinary team of researchers from Yale University, Duke University, Wake Forest University (USA) and the University of Pretoria (SA) conducted the research (Eloff, 2008, Eloff *et al.*, 2011). All the participants in the research projects came from resource-scarce communities in the surrounding area. In addition to dealing with the effects of HIV/AIDS, other factors such as poverty, malnutrition, abuse and neglect played a part in many of the participants' lives (Forsyth in Van Dullemen, 2009, p. 38).

3.7 SELECTED DATA SOURCES

3.7.1 Qualitative data

3.7.1.1 The Düss as projective storytelling technique

I selected the Düss fable (story) as the qualitative component of the mixed method research study. As stated, a Düss fable was used as part of the Kgolo Mmogo baseline assessment for six-year-old participants administered by the research assistants.

Merrel (2008) explains projective assessment (techniques) as the evaluation of information (drawings, stories, statements) given by a person in response to an ambiguous task, to make sense of their underlying personality processes and social-emotional functioning. Projective-assessment techniques allow a person to project unconscious needs, motivations and conflicts verbally or through drawings when confronted with ambiguous tasks. These techniques are especially useful when working with children (Matthews & Bouwer, 2009; Peixotto, 1960) as the responses made by the children can reveal significant information about the child's 'inner processes' (thoughts and feelings), with the benefit of the child being unaware of this fact. Story and sentence completion techniques as a projective method are defined as a verbal stimulus given at a beginning of a story or sentence (Catterall & Ibbotson, 2000). Louisa Düs developed the Düss (Despert) Fables in order to elicit information on emotional conflicts of children (Peixotto, 1960).

The following Düss story was used with the children in the Kgolo Mmogo project:

Düss story
In a tree next to a forest is a bird's nest. Two birds and their chicks live there. The chicks are able to fly. It is night time and they are all fast asleep. Suddenly a tremendous storm comes up and shakes the tree so bad that the nest with the birds falls down, onto the ground. The birds wake up. The mother bird immediately flies back into their tree and the daddy bird flies into another tree close by. Question: What do the chicks do?

For the purposes of the Kgolo Mmogo project, the story was translated[15] into the mother-tongue[16] languages of the participants prior to the start of the study. The process was facilitated by research assistants who read the stories to the children in their mother-tongue and the children were able to answer the question in their mother-tongue. Audio-recorded, transcribed and then translated transcriptions of the Düss story administered during the baseline assessment served as the data source for my study (See Appendix B for stories told).

3.7.1.2   Quality assurance of qualitative data

In this study I attempted to address issues of credibility, transferability, confirmability and dependability (Lincoln & Guba in De Vos, 2005 p. 346; Seale, 1999) in order to demonstrate the trustworthiness of the study. I carefully reviewed the data and it was verified by an external coder (Maree & Van der Westhuizen, 2009). I also made use of data triangulation (Seale, 1999) by comparing the scores of resilience from the quantitative analysis with the emerging themes of resilience from the qualitative data analysis. During the process of data analysis, I searched for negative instances (Seale, 1999) to challenge the emerging hypothesis of the study that might be based on personal opinions and feelings. These strategies helped in enhancing the credibility of the study.

I gave a detailed, rich description (Seale, 1999) and sufficient information of the setting under study to judge the applicability of the findings to other settings. This will enhance the study's transferability (Lincoln & Guba, in De Vos, 2005, p. 346) I strictly adhered to the methods, designs and documentation of data during the process of data analysis and interpretation (Seale, 1999) as this influenced the dependability of the findings of the study.

3.7.2   Quantitative data

3.7.2.1   The Child Behavior Checklist

I selected the Child Behavior Checklist for ages 6 to 18 years (CBCL/6-18) for the quantitative component of the study. The CBCL/6-18 formed part of the Kgolo Mmogo baseline assessment for six year old participants.

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[15] Translations of the participants' stories are provided in Appendix A.

[16] The story was translated into Setswana, Isizulu, Sepedi, Tsonga and Setsotho.

The Achenbach System of Empirically Based Assessment which includes the CBCL/6-18 is designed for research applications as well as practical use by professionals. The CBCL profiles enable practitioners to compare descriptions of a child at various points in time, for instance during an initial evaluation, subsequent to an intervention and during a follow-up evaluation. The CBCL/6-18 can be used in mental health settings, educational settings, medical settings, in child and family service settings and forensic contexts (Achenbach & Rescorla, 2001).

The CBCL is an instrument which enables parents (or other significant individuals who know a child well) to rate a child's problem behaviours and competencies, which are then summed to provide scale scores. The CBCL can also be used to measure a child's change in behaviour over time. It is a component of the Achenbach System of Empirically Based Assessment (ASEBA) which consists of an integrated set of forms for assessing competencies, adaptive functioning and problem behaviours (Achenbach & Rescorla, 2001). It is also used for the detection of behavioural and emotional problems in children and adolescents (Searchable Inventory of Instruments Assessing Violent Behaviour and Related Constructs in Children and Adolescents, 2006; Achenbach et al., 2008). Two versions of the CBCL exist; one for the ages 1 ½ - 5 years and one for the ages 6 -18 years.

The CBCL/6-18 is a revised edition of the CBCL/4-18 (Achenbach & Rescorla in Achenbach et al., 2008, p. 257). It consists of a hundred and twenty problem items (problem behaviour rating scales). Two of the items are used for open-ended descriptions of the rater's concerns regarding the child's behaviour. The other hundred and eighteen items reflect specific behavioural and emotional problems of children. These items are rated according to a three point scale, where 0 = true, 1 = somewhat or sometimes true, 2 = very true or often true. These ratings (scores) are summed[17] to provide scale scores. The problem items and scales present the practitioner with a well-differentiated portrayal of the child's problems as seen by particular informants and compared to normative samples of peers (Achenbach & Rescorla, 2001).

The CBCL/6-18 also consists of a section in which the parent or informant provides information on the adaptive behavioural competencies of the child. This section of the CBCL/6-18 contains twenty items where the parents or informants provide information on the child's activities, social relations, and school performance (Merrel, 2008). The adaptive functioning and competence

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[17] Note that the scoring procedure for the CBCL/6-18 is more complex than what is briefly discussed in this section. For a more detailed discussion of the scoring procedures the manual for the ASEBA School-Age Forms and Profiles should be consulted (Achenbach & Rescorla, 2001).

items present the practitioner with information regarding the child's functional strengths at home and school, with peers and in leisure activities (Achenbach & Rescorla, 2001).

The raw scores obtained from the ratings of parents (or informants), are converted and categorised into three main categories for problems namely; internalising, externalising and total problem scores that are based on a T-score system and that are grouped according to age and gender. The CBCL/6-18 score profile also provides for a breakdown of scores into eight subscales or cross-informant syndromes (Fig. 3.2). The competence scores are also converted to obtain a total competence score (Merrel, 2008). The CBCL/6-18 norms provide standardised yardsticks to which the children's reported scores can be compared. These comparisons or profiles reveal areas where the child's reported strengths and problems are in the normal, borderline or clinical range (Achenbach & Rescorla, 2001). This enables the practitioner to identify assets and problems in the child's behaviour that needs attention. Thus, the CBCL provides information with regard to ratings of a child's behaviour against normative samples of children, as well as descriptive information that is relevant only to the specific child who is assessed (Achenbach & Rescorla, 2001).
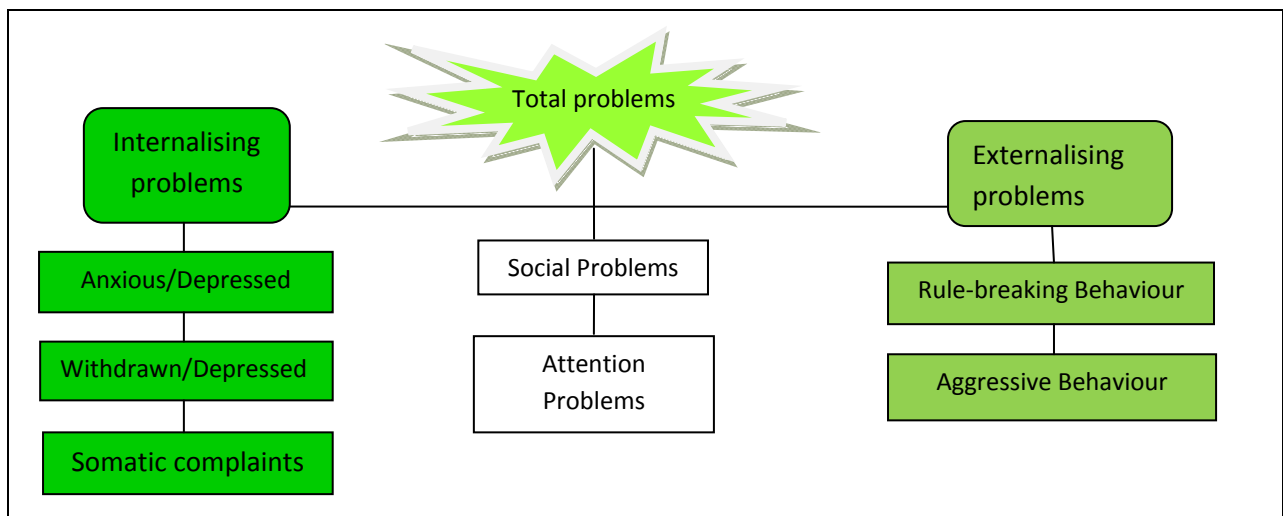
Figure 3.2   Diagramme of CBCL scales and their relationship
(Adapted from Merrel, 2008, p. 107)

This instrument can be self-administered or be administered by an interviewer (Achenbach & Rescorla, 2001). The CBCL provides good clinical utility as it provides general and specific information on the nature and extent of a subject's behavioural, social and emotional problems. The instrument can be used with children from different socioeconomic backgrounds and across diverse ethnic groups (Merrel, 2008).

3.7.2.2   Quality assurance of quantitative data

As mentioned previously, triangulation of data (by means of comparison with regards to the scores obtained from the quantitative data and the themes of the qualitative data) enhances the reliability (Maree & Van der Westhuizen, 2009) of the study. In order to ensure that the data help confirm the findings of the study (Lincoln & Guba, in De Vos, 2005, p. 346) I reflectively audited the documentation of the data. The comparison of the scores from the quantitative instrument to the emerging themes from the qualitative data (triangulation) also underscores the conformability of the study. In order to ensure validity, I reviewed the data and did not use data selectively to falsely verify findings. By making use of an external coder, I guarded against misperceptions, expectations and my own preconceived ideas about the research (Maree & Van der Westhuizen, 2009).

3.8   RIGOUR OF MEASURES

3.8.1   The Düss as projective technique

a)   Reliability and validity of projective techniques

Projective assessment techniques are a type of technique which requires individuals to respond to ambiguous stimuli in an open-ended manner (De Bruin, 2005; Neukrug & Fawcett, 2010). The interpretation of projective techniques is done more intuitively (De Bruin, 2005) and subjectively (Merrel, 2008) and is based on each client's individual response to a stimulus. This results in a wide-range of responses from different individuals to the same stimulus. Consequently, norm group comparisons are often limited and the validity, reliability and appropriate use (Merrel, 2008) of projective techniques are sometimes questioned (Neukrug & Fawcett, 2010). According to Catterall and Ibbotson (2000) the supposition that projective techniques can bring to light unconscious needs, motivations and desires is open to challenge. The use of projective techniques appears to have declined over recent years (Piotrowski *et al.*, in Lilienfeld *et al.*, 2000, p. 27). Considering this, their use is nevertheless still popular amongst professionals in clinical and forensic settings, even though the scientific significance of one is highly controversial (Lilienfeld *et al.*, 2000). The authors (Lilienfeld *et al.*, 2000) argue that projective techniques are not innately invalid or unreliable but should rather be considered as more or less valid for a particular assessment purpose and circumstances. There is a lack of consensus among professionals (Esquivel, Oades-Sese & Littman Olitzky, 2008) with regard to the applicability of projective assessment techniques for use with persons from diverse cultural backgrounds. However, according to Barrera (in Losardo & Notari-Syverson, 2001, p. 8)

qualitative assessment approaches such as story-telling (Lubbe, 2004) can be especially useful when applied in cross-cultural environments. Storytelling provides children with the opportunity to express fantasies, explore conflict situations and the possibility to deal with problems and feelings (Geldard & Geldard, 2002). Narratives or stories naturally communicate some intentions, explanations and topics or themes that add to our understanding of everyday lives. Narratives or stories can serve as an explanation for individuals' psychological reality, experience and life history, all which are influenced by the individuals' culture. In the nuances, intricacies and topics found within stories as well as omissions, the individuals' life schemas become visible (Cramer, 2004). Thus, there is evidence to suggest that the cross-cultural use of narratives (story-telling) as an assessment measure with young children can be valuable.

b) Advantages and limitations of projective techniques

Projective techniques can be multifaceted, functional and enjoyable for respondents to complete. Due to the ambiguous nature of these techniques they allow respondents to draw on their own frames of references and can help to alleviate stress and anxiety during an assessment (Catterall & Ibbotson, 2000; King, 1995). The Düss fables as projective technique is valuable when used to elicit information with regard to a child's interpersonal relationships (Symonds & Hessel, 1950).

The ambiguous nature of these techniques can also conceal the true purpose of the questioning or assessment. This can lead to questions and problems with regards of the ethical use of projective techniques (Catteral & Ibbotson, 2000). The inherent vagueness of these techniques can aid professionals in assessing complex feelings and emotions that might be difficult for respondents to express (Boddy, 2005; Lilienfeld *et al*., 2000) during direct questioning. The interpretation of projective assessment techniques requires skill and experience from the professional who use these techniques (Robson in Bobby, 2005, p. 243-244).

As mentioned above, various concerns exist with regard to the overall reliability, validity and usefulness of projective assessment techniques. However, in the Kgolo Mmogo project the use of the Düss story was considered valid and reliable for this particular purpose (Lilienfeld *et al*., 2000) as it was used with young children who often find it difficult to directly express their complex array of thoughts and feelings (Boddy, 2005; Catteral & Ibbotson, 2000; Geldard & Geldard, 2002; Lilienfeld *et al*., 2000). The Düss projective storytelling technique can be enjoyable for children to complete and help lessen the stress and anxiety common in an assessment environment (Catteral & Ibbotson, 2000; King, 1995) as well as elicit information

with regard to the children's interpersonal relationships (Symonds & Hessel, 1950). The individuals that participated in the Kgolo Mmogo project were mostly from cultures for whom existing measures have not been validated (Ebersöhn *et al.*, 2009) and the Düss projective storytelling technique seemed a viable option as narratives or stories convey messages about individuals' experience, psychological reality, life histories and culture (Cramer, 2004).

3.8.2 The Child Behavior Checklist

a) Validity of the CBCL

The validity of a measure (instrument) pertains to what the instrument measures and how well it measures what it claims to measure (Wolfaardt & Roodt, 2005). It refers to the accuracy with which instruments assess or measure what they are supposed to assess (Achenbach & Rescorla, 2001). Validity is not a fundamental property of a measure (Lurie, Mooney & Lyness, 2011), but rather, as Wolfaardt and Roodt (2005) state 'a psychological measure is valid for a specific purpose' (p. 33). Thus, the validity of a measure presents a clear indication of the utility of that specific measure (McMillan & Schumacher in Van Dullemen, 2009, p. 45). According to Merrel (2008) the CBCL is currently one of the best constructed, most sophisticated and extensively researched instruments available for measuring behavioural, social and emotional problems. Content validity, criterion-related validity and construct validity were the different types of validity (Wolfaardt & Roodt, 2005) that were focused on during the standardisation of the ASEBA (of which the CBCL forms part) (Achenbach & Rescorla, 2001).

b) Reliability of the CBCL

Wolfaardt and Roodt (2005) state that the reliability of a measure refers to 'the consistency with which it measures whatever it measures' (p. 28). To assess the reliability of the CBCL item scores, the intraclass correlation coefficient (ICC) was computed from one-way analyses of variance (Bartko in Achenbach & Rescorla, 2001, p. 99). 'The ICC reflects the proportion of total variance in item scores that is associated with differences between the items themselves, after the variance due to a specific source of unreliability has been subtracted' (Achenbach & Rescorla, 2001, p. 99). In the next section I will briefly discuss the reliability of the CBCL in terms of inter-interviewer reliability, test-retest reliability and internal consistency.

Inter-interviewer reliability is concerned with the similarity of item scores from different interviewers. The inter-interviewer reliability of the CBCL was assessed by comparing scores

obtained by three different interviewers on 241 matched triads (according to age, gender and ethnicity) of children for a total sample of 723 children. The overall ICC was 0.93 for the 20 competence items and 0.96 for the 118 specific problem items. It signifies a very high inter-interviewer reliability in scores obtained for each item relative to scores obtained for each other item (Achenbach & Rescorla, 2001).

Test-retest reliability is the correlation between scores obtained on a measure administered to the same group of respondents on different occasions (Wolfaardt & Roodt, 2005) with brief intervals when the individuals' behaviour (as the case with the CBCL) is assumed to remain constant (Achenbach & Rescorla, 2001). The overall ICC was 1.00 for the 20 competence items and 9.5 for the 118 specific problem items. This signifies very high test-retest reliability for each item relative to scores obtained for each other item (Achenbach & Rescorla, 2001).

Internal consistency refers to the correlation between one half of a scale's items and the other half of the scale's items (Achenbach & Rescorla, 2001). The consistency for the competence scales was moderately high, ranging from 0.63 to 0.79. For the empirically based problem scales, the consistency ranged from 0.78 to 0.97 and for the DSM-orientated scales, consistency ranged from 0.72 to 0.91. This implies that the items on the CBCL has a moderately high internal consistency and thus, reliably measure what they are supposed to measure.

3.9   CONCURRENT DATA ANALYSIS

3.9.1   Qualitative data: content analysis

I made use of qualitative content analysis (Mouton, 2001) for the analysis of Düss story (fable) transcriptions in order to identify themes of resilience that emerged from these stories. Content analysis is a systematic approach (Nieuwenhuis, 2007) which involves reading and appraisal (Cohen, *et al.*, 2000) in order to identify and summarise or code (Babbie, 2008) the content of messages (Nieuwenhuis, 2007). It is a method of looking at data from different perspectives in order to identify keys in the text which will help us understand and interpret the raw data. The raw data was firstly prepared and organised for coding. This entails thoroughly reading the data and dividing it into meaningful analytical units. I then coded meaningful segments by means of symbols, descriptive words or identifying names (refer to Appendix C for examples of this phase). I then organised and combined codes into themes of resilience and non-resilience (refer to Appendix D for examples of resilience and non-resilience themes). Subsequently I

organised themes into comprehensible categories in order to achieve deeper meaning and understanding of the data (Nieuwenhuis, 2007) (refer to Appendix E).

The analysis of documents and texts is an inconspicuous method, thus errors such as observation effects, associated with the interaction between researchers and subjects are avoided (Babbie, 2008; Mouton, 2001; Stemler, 2001). Content analysis is a methodical technique for reducing large amounts of texts to fewer categories (Stemler, 2001) or themes for better understanding of the texts through subjective interpretation (Hsieh & Shannon, 2005). It is a data reduction technique whereby inferences are made that can then be substantiated by other data collection strategies (Stemler, 2001). Content analysis also allows for the correction of errors in coding; the researcher will be able to re-code the data if necessary and this can strengthen the reliability of the data. Content analysis can be timesaving and cost- effective, as no special equipment or personnel are required (Babbie, 2008; Rubin & Babbie, 2010). In this study, content analysis was used as qualitative data analysis technique (Rubin & Babbie, 2010).

Content analysis is limited to the analysis of documented communication, whether written, verbal or visual (Babbie, 2008). The authenticity of the data sources can be questioned. The representativeness of the texts that are analysed can limit the overall external validity of the findings (Mouton, 2001). One of the challenges of conventional content analysis is that it can be confused with other techniques of qualitative data analysis. Another challenge of this type of data analysis is that the researcher must ensure that the essential themes are identified in order to develop an understanding of the context under study which could lead to findings that do not precisely encapsulate the data (Hsieh & Shannon, 2005). In order to increase trustworthiness, I adhered to the systematic methods of coding and theme analysis (Hsieh & Shannon, 2005). I made use of an external coder in order to ensure that the essential themes were identified accurately. I also triangulated these findings with quantitative data with the intention of enhancing credibility (Lincoln & Guba in Hsieh & Shannon, 2005, p. 1280).

3.9.2 Quantitative data: secondary data analysis

Within the concurrent mixed method design, I made use of secondary data analysis (pre-existing data), for the analysis of the Child Behavior Checklist (CBCL/6-18) (Babbie, 2008; Mouton, 2001). I used scores[18] to determine the levels of resilience reported by mothers

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[18] The scores of the CBCL were documented and captured as Excel spreadsheets and are presented as graphs in Appendix E.

according to the CBCL/6-18 scales. These levels of resilience were then compared to qualitatively derived themes resulting from the analysis of children's Düss stories.

Secondary data analysis is timesaving, cost-effective and provides the possibility of reanalysing previous findings (Mouton, 2001; Rubin & Babbie, 2010). Secondary data analysis enables the researcher to access data and conduct studies on complex populations (six-year-old children of mothers infected with HIV/AIDS) that might be otherwise hard to find (Sales in Rubin & Babbie, 2010, p. 240). The input from the researcher can be maximised by concentrating on existing data. It can be complementary to, or contrasting with other research, that verifies or reject previous findings. Secondary data analysis avoids reactivity of respondents from being observed. The researcher is able to use original data for a new independent study. When using secondary data from a funded project, the data collection process is frequently performed by experts and professionals. This expertise may not be available to the small scale researcher (Boslaugh, 2007). Both quantitative and qualitative data can be used for secondary data analysis. With the use of secondary data, ethical dilemmas are minimised as direct harmful effects on respondents are avoided. Multidisciplinary understanding of social issues can be obtained as the same dataset can be analysed by different disciplines and be viewed from different perspectives. Extended datasets can be utilised, larger and more widespread than the researchers could have handled on their own (Boslaugh, 2007; Strydom & Delport, 2005).

Secondary data analysts are not able to control for data collection errors. The analysts are constrained in the data analysis by the original objectives of the research (Mouton, 2001; Lewis, 2003) and also inherently, by the existing data (Rubin & Babbie, 2010). As the researcher was not directly involved with the planning and collection of the data, the researcher should take time to become acquainted with the procedures followed (Boslaugh, 2007). The validity of the data can be questionable as there is no assurance that the data will be apt for your research interest (Babbie, 2008). Secondary data need to be carefully examined to ensure that the quality and relevance of the data fits with the purpose of the study (Boslaugh, 2007; Lewis, 2003). As the researcher using secondary data does not always know how the data was collected, the researcher should try to envisage the kind of problems that might have been encountered during the data collection process (Boslaugh, 2007). The confidentiality and anonymity of a study could be compromised as a second researcher will be working with the existing data from a previous study (Dale *et al.*, in De Vos, 2005, p.324).

In an attempt to control the limitations inherent in secondary data collection, the following steps were taken. I discussed the procedures followed during the data collection (Boslaugh, 2007) of

the larger Kgolo Mmogo project with my co-supervisor who formed part of the team involved with the data collection process. The data was examined to ensure that it was relevant for the purpose of this particular study (Boslaugh, 2007; Lewis, 2003). Only identification numbers were used on the documentation (data) sourced from the larger Kgolo Mmogo project and thus, the confidentiality and anonymity of the participants were in no way compromised (Dale *et al.*, in De Vos, 2005, p. 324).

3.10 ETHICAL CONSIDERATIONS

When working with existing (secondary) data some distinctive ethical considerations (Huston & Naylor, 1996) arise with regard to informed consent, privacy of participants and the role of the secondary analyst (Dale *et al.*, in De Vos, 2005, p.324; Heaton, 1998; Huston & Naylor, 1996). These ethical considerations are discussed below.

Informed consent is the right of participants to full disclosure concerning the research in which they partake (Mouton, 2001). The participants of the Kgolo Mmogo project were informed of the purpose of the study. The participants signed consent forms at the beginning of the project. It was explained to the participants that participation in the project was voluntary and that they could at any time during the process withdraw from the project.

All possible measures were taken during the study to ensure that the data would be safe, secure and confidential (Cohen *et al.*, 2000). There is a room at the research site allocated specifically for the safekeeping and storage of the generated data. The room is locked at all times with limited access.

Anonymity and confidentiality is necessary to ensure that the identity of participants under no circumstances become known to others. The privacy of the participants was protected at all times. To ensure this, only identification numbers were used on the documents collected and the data was only discussed with the designated supervisors (Cohen *et al.*, 2000).

Secondary data analysis entails the use of existing data (Heaton, 1998; Rubin & Babbie, 2010). As the researcher was not part of the original research team (Heaton, 1998), the data and the data collection procedures were carefully scrutinised to ensure that the quality and significance of the data fitted in with the rationale or purpose of the study (Boslaugh, 2007; Lewis, 2003).

Ethical clearance for the larger Kgolo Mmogo research project, of which my study forms part, was obtained prior to its commencement.

3.11 SUMMARY

In this chapter I gave an overview of the paradigmatic stance taken during my study. I also gave a more detailed discussion of the research process, research design as well as the data collection and analysis strategies. Furthermore, this chapter includes a discussion regarding the quality of the study, as well as the ethical considerations. A brief overview of the background to the larger research project of which this study forms part of is also included in this chapter. In the next chapter, I will discuss the results of my study as it relates to both the quantitative and qualitative measures that were used.

CHAPTER 4

RESEARCH RESULTS

4.1   INTRODUCTION

In the previous chapter I discussed methodological decisions I made during this study.   I discussed and motivated the research design and process that was followed in order to explore the utility of a Düss fable for the measurement of resilience in young children cross-culturally. Furthermore, I described the aim and context of my study as well as the background of the participants.   In this chapter I present the results obtained from both the qualitative and quantitative data sources used in this study.

4.2   RESULTS

In this section, I provide an overview of the results obtained from the Düss fable as qualitative data source in conjunction with the Child Behavior Checklist as quantitative data source, which formed part of the baseline assessment of six-year-old participants in the Kgolo Mmogo project. I compare the scores obtained from the Child Behavior Checklist as reported by the participants' mothers with that of themes of resilience and/or non-resilience identified from the Düss fables completed by the child-participants.

4.2.1   Results relating to the qualitative data source

I made use of inductive qualitative content analysis as method for the analysis of the individual participants' stories (see Appendix B) in order to identify themes of resilience and non-resilience.   After the initial coding (see Appendix C) of the data I organised the codes into themes and subthemes (see Appendix D). Subsequently, I arranged the themes into categories (see Appendix E) which include internal and external factors pertaining to resilience.   The internal factors (internal protective resource and internal risk factors) are those factors identified within the child-participants themselves. The external factors (external protective resources and external risk factors) are those factors that relate to the environment (systems) of the child-participants. In Table 4.1 I provide a summary of the themes identified from all the participants' Düss fables as well as the criteria for inclusion or exclusion for each category. The themes of resilience and non-resilience identified individually for each participant is included as Appendix F in this dissertation.

From the analysis of the child-participants' Düss stories only risk factors were identified from six of the participants' stories. Protective resources were identified from another six of the participants' stories while both protective resources and risk factors were identified from seven of the participants' stories. From the majority of the participants' stories both internal and external factors were identified. From five of the participants' stories only external factors were identified while only internal factors were identified from three of the participants' Düss stories.

Table 4.1 Themes identified from the participants' Düss Fable

			THEME 1: INTERNAL FACTORS		
			SUBTHEME 1.1: INTERNAL PROTECTIVE RESOURCES		
	Category	Participant	Extract	Criteria for inclusion	Criteria for exclusion
a.	Problem focussed coping	390 652 560 534 516 517 604 675 712	'They flew to another tree.' 'The father went to the other tree and built another house.' 'They flew' 'They went inside a nest.' 'Then they flew and got in a tree.' 'They got on something that helped them to leave.' 'They will fly to the tree.' 'they flew to the tree' 'the kids flew to another tree' 'They flew to a tree and they made another nest.'	Child displays efforts that are task-orientated and directed at managing or changing the specific problem or source of stress.	Child displays no efforts at managing and directing the problem or source of stress.
b.	Emotional intelligence	516 534 602	'They were afraid.' 'they became happy' 'They lived happy.' 'they were all happy' 'He loves them.' 'crying for help' 'got angry'	The child's response indicates the ability to identify and express emotions.	The child did not identify or express any emotions within the story.
c.	Spirituality / religious identification	534	'took them to heaven' 'belong to Jesus'	The child indicates a sense of spirituality and identification with religious beliefs and / or groups.	There is no indication of a sense of spirituality or religious identification.
d.	Resolve / agency	602 604	'They kept on trying over and over' 'crying for help, calling their parents by blowing whistles' 'they want to fly to the tree' 'they flew to the tree'	The child displays willpower and determination and takes action when faced by a problem.	There is an absence of willpower and determination and no action is taken towards solving a problem.
e.	Positive future expectancies	534 516 652	'The wind took them to heaven.' 'The birds belong to Jesus.' 'They lived happy.' 'The father bought a car and built a garage and they were all happy.' 'She put them in a new house.'	Response implies that the child has positive future expectancies.	There is no indication that the child has positive future expectancies.

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			SUBTHEME1.2: INTERNAL RISK FACTORS		
a.	Maladaptive coping	302 382 432 504 656 602 716	'I don't know.' 'I don't want to talk anymore.' 'The little birds fell on the ground and died' 'The birds slept on the ground.' 'and slept again' 'they woke up and left' 'I don't know.' 'I don't know.' 'No, they could not do it' 'their wings are not yet well developed.' 'fell back on the ground again' 'They were eventually stolen by people, killed and eaten up.' 'The mom and father to the little birds could not rescue them' 'crying for help, calling their parents' 'it did not help' 'They were left on the ground they fell on.'	The response indicates that the child makes use maladaptive coping strategies such as resistance, reluctance and negativity. The child response also indicates the absence of problem solving efforts. In some instances the child displays either internalising and / or externalising problems.	There is an absence of maladaptive coping strategies, internalising and / or externalising problems
b.	Lack of problem solving skills	382 432 498	'The birds fell on the ground and died.' 'The birds slept on the ground.' 'they woke up and left' 'they fall down'	The child's response indicates a lack of problem solving skills.	The child's response indicates the presence of problem solving skills.
c.	Negative emotions	602 516	'crying' 'They were afraid.'	The child's response indicates the presence of negative emotions.	There is an absence of negative emotions in the child's response.

THEME 2: EXTERNAL FACTORS					
SUBTHEME 2.1: EXTERNAL PROTECTIVE RESOURCES					
a.	Navigation towards positive institutions	390 604 560 534 516 658	'They flew to another tree.' 'Their father helped them.' 'they flew to the tree where their father is' 'they move to their mother's nest' 'They went inside a nest.' 'Mom and dad also went' 'followed their parents' 'A friend of mine' 'They went to the police station' 'somebody called police birds' 'took the tsotzi-birds to court' 'The children went out to play and came back to the house'	The child shows the capacity to seek help from available resources.	There is no indication that the child is able to seek help and no indication that the necessary resources are available.
b.	Sense of belonging	390 498 604 652 560 534 516 658	'Their father helped them.' 'Fast asleep in the nest' 'The mother and father went back to the tree.' 'flew to the tree where their father is and they move to their mother's nest' 'The father went to the other tree and built another house' 'mother came and took the children to the other tree where the father was' 'She put them in a new house.' 'Mom and dad also went to a tree' 'they had brought food for the little birds' 'followed their parents to another tree' 'father bought a car and built a garage and they were all happy.' 'mother came back and cooked for the children' 'She dished out the food' 'father came back to look after the children' 'The children went to play and came back to the house'	The child's response gives an indication of positive relationships with others and portrays family cohesion.	The child's response gives no indication of positive relationships with other and there is no indication of family cohesion.

c.	Availability of material resources	390 498 604 652 560 534 658 675	'flew to another tree' 'fast asleep in the nest' 'mother and the father went back to the tree' 'they move to their mother's nest' 'built another house' 'new house' 'They had brought food for the little birds to eat.' 'When you leave a piece of bread outside the birds eat it.' 'They also drink milk.' 'cooked for the children' 'dished out the food' 'came back to the house' 'father came back to look after the children' 'the kids flew to another tree'	The child response indicates feelings of safety and that their physical needs of shelter, clothing and food are met.	There is no mention of feelings of safety or that their physical needs of shelter, clothing and food are met.
d.	Negotiation (provision) of health resources	516	'They went to the police station and they put them on a fire truck. 'Somebody called police birds and they took the tsotzi birds to court.'	There is evidence that the child's environment provides meaningful health resources.	There is no evidence that the child's environment provides meaningful health resources.
<center>**SUBTHEME 2.2: EXTERNAL RISK FACTORS**</center>
a.	Awareness of chronic risk and adversity	604 602 516 675	'it became dark again and a strong wind start again' 'they fell back on the ground again' 'The wind prevented them from flying. 'found the house destroyed' 'then it rained.' 'ran into tsotzi birds and took one of them' 'the tree was shaken and the tree fell on the ground' 'the rain was still going on'	The child's response indicates that the child is aware of risk and adversity.	The child's response does not indicate and awareness of risk and adversity.
b.	Awareness of death	382 534 602 716 721	'The little birds fell on the ground and died. 'The wind took them to heaven. 'The birds belong to Jesus.' 'killed and eaten up' 'stabbed those people and they died' 'they died and were put inside their coffins' 'they fell got injured and died'	From the child's response it is evident that the child is aware of death.	There is no indication from the child's response that the child is aware of death.

c.	Exposure to crime and aggressive behaviour	602 516	'They were eventually stolen by people, killed and eaten up' 'confronted the people that stole their little birds about the stealing' 'the adult birds, who where now human beings, got angry, picked up beer bottles, broke them and stabbed those people and they died' 'ran into tsotzi-birds and took one of them'	From the child's story it is evident that the child has been exposed (directly or indirectly) to crime and aggressive behaviour.	There is no evidence in the child's story that the child has been exposed (directly or indirectly) to crime and aggressive behaviour
d.	Lack of material resources	560 534	'They had been feeling cold.' 'They sat on the tree and felt cold.'	The child's response indicates that there is an absence of material resources such as shelter, food and clothing.	The child's response gives no indication that there is an absence of material resources.
e.	Parental abandonment	721	'The parents took them and threw them in the forest.'	The child's response indicates that the parents abandoned the child and that there is no help available.	There is no indication of parental abandonment from the child's response.
f.	Absence of family cohesion	602 716	'The mom and father to the little birds could not rescue them and take them back to the tree' 'calling their parents by blowing whistles but it did not help' 'So they were left on the ground they fell on.'	The child's response implies the absence of positive relationships within the family and a sense of cohesion.	The child's response gives an indication that there is a sense of family cohesion and positive relationships.

4.2.1.1   Content analysis of the Düss fable

Specific themes of resilience (protective resources) and non-resilience (risk factors) emerged from the Düss-data. The themes of resilience or non-resilience were identified as either internal or external to the child. As previously mentioned, the internal protective resources and risk factors identified are those within the child-participants themselves and the external protective resources and risk factors identified are those within the child-participants' environments[19].   Three of the participants' (302, 504, 656) stories gave evidence of reluctance and resistance and since the participants responses were limited, I classified them as lean stories[20]. Extracts include 'I don't know' (participant 302, 504, 656) and 'I don't want to talk anymore' (participant 302, line, 2).   I opted to categorize these responses as maladaptive coping strategies, signifying an internal risk factor. Two of the participants (516 and 602) gave rich, detailed vignettes from which valuable information could be gathered. The rest of the participants' stories were age-appropriate and of average length and detail, from which equally valuable information could be gathered. From the analysis of the child-participants' fables it was found that risk factors and protective resources exist on a continuum. Four of the participants' stories indicated the awareness of continuous risk and one participant indicated the awareness of continuous risk as well as an awareness of adaptation to risk.

a) Internal protective resources

I categorised the **internal protective resources** into five categories. In Figure 4.1 I present a summary of the distribution of the internal protective resources portrayed by participants. The first category is related to the participants' coping strategies. **Problem focused coping** signifies the child's efforts at managing or changing the source of stress or specific problems they are faced with by applying task-orientated strategies. Extracts related to this category include 'they went inside a nest' (participant 560, line 2), 'they flew to another tree' (participant 390, line 1) and 'they got on something that helped them to leave' (participant 516, line 1). From Figure 4.1 it is apparent that *problem focussed coping is the internal protective resource mostly used among participants.*

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[19] Here, environment denotes all the external systems interacting with the child such as family relationships, peers, and physical environment.
[20] I define lean stories as those stories where the child-participant responded with resistance and reluctance which indicated that the child did not want to narrate a story, and therefore gave limited responses such as 'I don't know'.

The second category of internal protective resources is **emotional intelligence** and indicates a child's ability to identify, understand and express emotions. Extracts related to this category include 'they became happy' (participant 516, line 2) and 'He loves them' (participant 534, line 1). This is a relatively prominent category as four of the participants' stories showed evidence of emotional intelligence.

Extracts relating to the third category of **spirituality or religious identification** include 'took them to heaven' (participant 534, line 1) and 'belong to Jesus' (participant 534, line 2). In this category the child's response gives an indication of a sense of spirituality or the identification with religious beliefs and/or groups. Only one of the participant's (534) story gave evidence of a sense of spirituality or identification with religious beliefs and/or groups.

The fourth category is categorised as **resolve or agency** and includes extracts such as 'they kept on trying over and over' (participant 602, line 1). Here the child displays willpower and determination and takes action when faced with a problem. Only two participants' stories indicated the presence of resolve or agency.

The fifth internal protective resource category is **positive future expectancies**. From the child's story one can infer that the child has positive future expectancies as can be seen in extracts such as 'the wind took them to heaven' (participant 534, line 1), 'the father bought a car and built a garage and they were all happy' (participant 516, line 2). The occurrences of positive future expectancies were relatively limited as this category was only identified from three of the participants' stories.
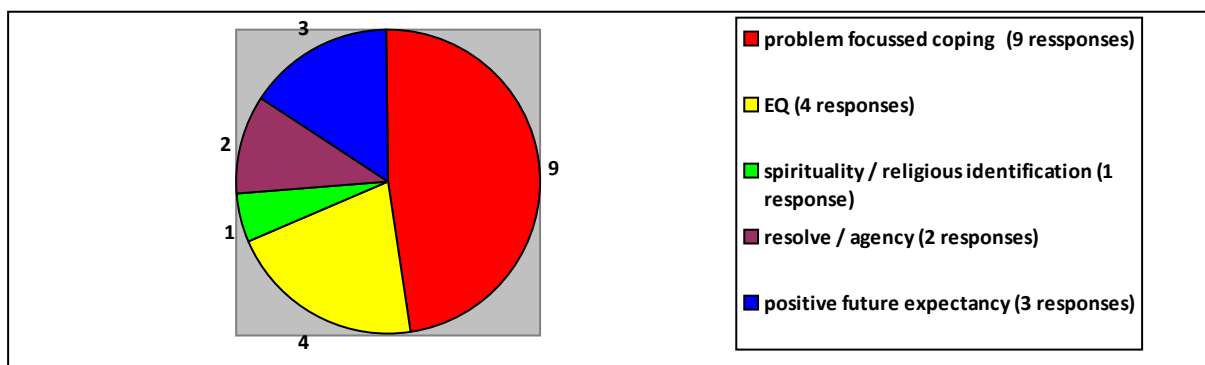
Figure 4.1:   Distribution of internal protective resources

b)   Internal risk factors

The **internal risk factors** were organised into three categories namely maladaptive coping, lack of problem solving skills and negative emotions. In Figure 4.2 I present the distribution of internal risk factors as portrayed by the participants. Extracts such as 'I don't want to talk anymore' (participant 302, line 2) and 'the little birds fell on the ground and died' (participant 382, line 1) relates to the first category of internal risk factors; **maladaptive coping**. For inclusion in this category the child's response must indicate the use of maladaptive coping strategies such as resistance and reluctance or the child's response must give evidence of internalising and/or externalising problems. From Figure 4.2 it is apparent that ***maladaptive coping was the internal risk factor identified in most of the participants' stories***.

The second category of internal risk factors relates to problem solving skills. In this instance the child's response indicate a **lack of problem solving skills** when faced with a problem. Extracts relating to this category include 'the birds slept on the ground' (participant 432, line 1) and 'they fall down'. Three of the participants' stories indicated lack of problem solving skills.

In the last category of internal risk factors the child expresses **negative emotions**[21] such as 'crying' (participant 602, line 1) and 'they were afraid' (participant 516, line1). Negative emotions were identified from only two of the participants' stories.
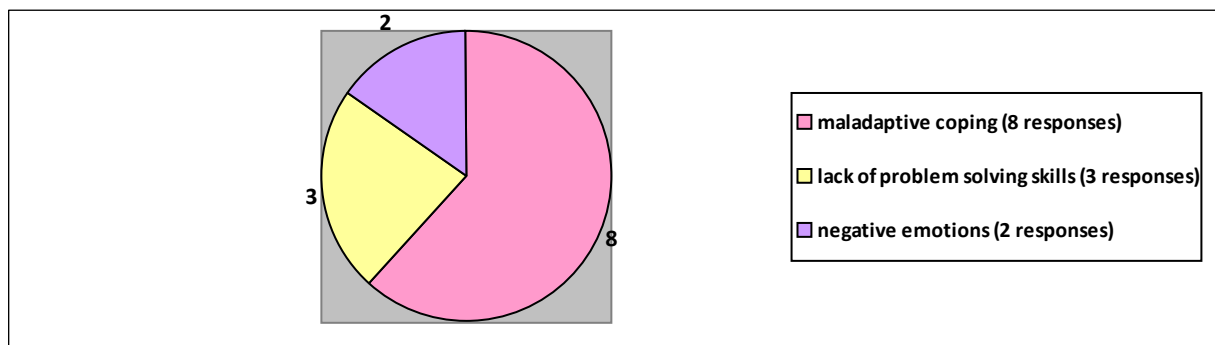
Figure 4.2:   Distribution of internal risk factors

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[21] Negative emotions refer to negative affect – emotions that indicate the experience of sadness, anger and fear.

c) External protective resources

I categorised the **external protective resources** into four categories. In Figure 4.3 I present the distribution of external protective resources as portrayed by the participants. The first category is **navigation towards positive institutions** where the child shows the capacity to seek help and/or there is an indication that the required help is available. Extracts relating to this category includes 'their father helped them' (participant 390, line 2), 'they went to the police station' (participant 516, line 2) and 'took the tsotzi-birds[22] to court' (participant 516, line 3).

The second category of external protective resources is a **sense of belonging**. The child's story portrays family cohesion and gives an indication of positive relationships with others. For instance 'flew to the tree where their father is and they move to their mother's nest' (participant 604, line1), 'mother came back and cooked for the children' (participant 658, line 1) and 'mother came and took the children to the other tree where the father was' (participant 652, line 3). Two of the participants' stories gave prominence to the father figure and portrayed a sense of cohesion with the father. Five of the participants' stories featured both parents and gave an indication of cohesion and positive relationships with both parents. As can be seen from Figure 4.3, a *sense of belonging is the external protective resource that was identified in most of the participants' stories*.

The third category relates to the **availability of material resources** such as food, clothing and shelter. The participants' response indicates a sense of security and that their physical needs are met. Extracts such as 'fast asleep in the nest' (participant 498, line 1), 'they had brought food for the little birds to eat' (participant 560, line 1) and 'they also drink milk' (participant 534, line 3) were included. Many (eight) of the participants' stories gave an indication of the availability of material resources. Within this category two participants' (534 and 560) stories gave an indication of the availability of food whereas three participants' (604, 652 and 675) stories indicated the availability of shelter. Two of the participants' (390, 498 and 658) stories gave an indication of the availability of both a sense of safety as well as shelter. Only one participant's (658) story indicated the availability of food, safety and shelter.

In one instance, the child's story gave evidence that the environment provides health resources that is meaningful to the child. Therefore, although with a minimal presence, the last category of external protective resources is categorised as **negotiation of health**

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[22] 'Tsotzi' refers to criminals as can be understood when considering the context of participant 516's story.

resources. Extracts include 'they went to the police station and they put them on a fire truck' (participant 516, line 1) and 'somebody called police-birds and they took the tsotzi-birds to court' (participant 516, line 2).
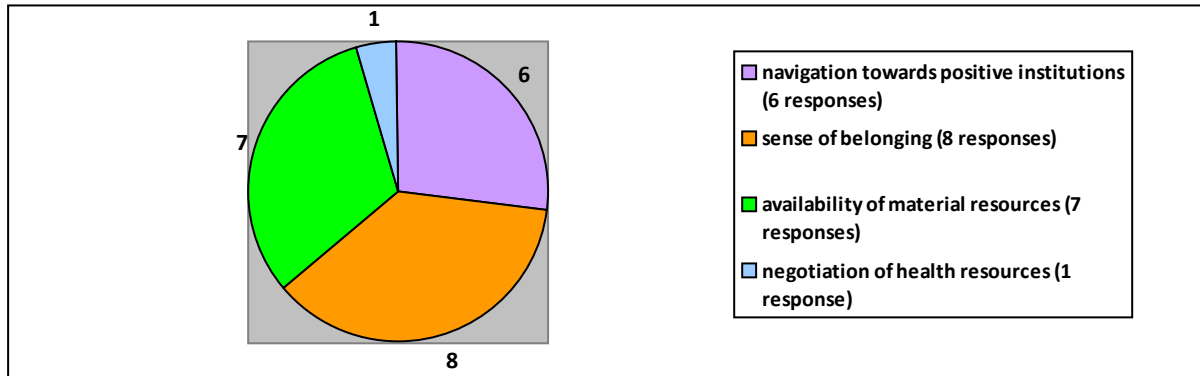
Figure 4.3:   Distribution of external protective resources

From Figure 4.3 it is evident that many of the child-participants' environment and especially the family systems provide a safe and secure atmosphere as eight out of the nineteen participants experienced a sense of belonging. Seven of the participants' stories indicated the availability of material resources while six of the participants gave an indication of navigation towards positive institutions.

d) External risk factors

Within the **external** environment, I identified six categories of **risk factors**. In Figure 4.4 I present the distribution of external risk factors as portrayed by the participants. The first category of external risk factors relates to the children's **awareness of chronic risk and adversity**. In some instances the children also show an awareness of adaptation to risk. Extracts describing this category include 'it became dark again and a strong wind start again' (participant 604, line 1), 'they fell back on the ground again' (participant 602, line 1) and 'found the house destroyed' (participant 516, line 2). Figure 4.4 show that an *awareness of chronic risk and adversity is the external risk factor that most of the participants experienced.*

In the second category of external risk factors the participants' response indicates **awareness of death**. This is evident from the extracts 'died' (participant 382, line 1), 'the wind took them

to heaven' (participant 534, line 1), 'they died and were put in their coffins' (participant 716, line 1) and 'they fell and got injured and they died' (participant 721, line 1).

Two of the participants' stories gave evidence of **exposure to crime and aggressive behaviour**. Extracts include 'the adult birds, who where now human beings, got angry, picked up beer bottles, broke them and stabbed those people and they died' (participant 605, line 5).

There were isolated instances where the stories indicated a **lack of material resources** such as shelter, food and clothing. Extracts related to this category includes 'they had been feeling cold' (participant 560, line 1) and 'they sat on the tree and felt cold' (participant 534, line 1).

The fifth category relating to the external environment is the **absence of family cohesion[23]**. Here, the child's story implies the absence of positive relationships within the family as well as the absence of family cohesion. Extracts related to this category include 'the mom and father to the little birds could not rescue them and take them back to the tree' (participant 602, line 1, 'calling their parents by blowing whistles but it did not help' (participant 602, line 2) and 'so they were left on the ground they fell on' (participant 716, line 1).

One participant's story gave an indication of **parental abandonment** as is noticeable in the extract 'the parents took them and threw them in the forest' (participant 721, line 1).
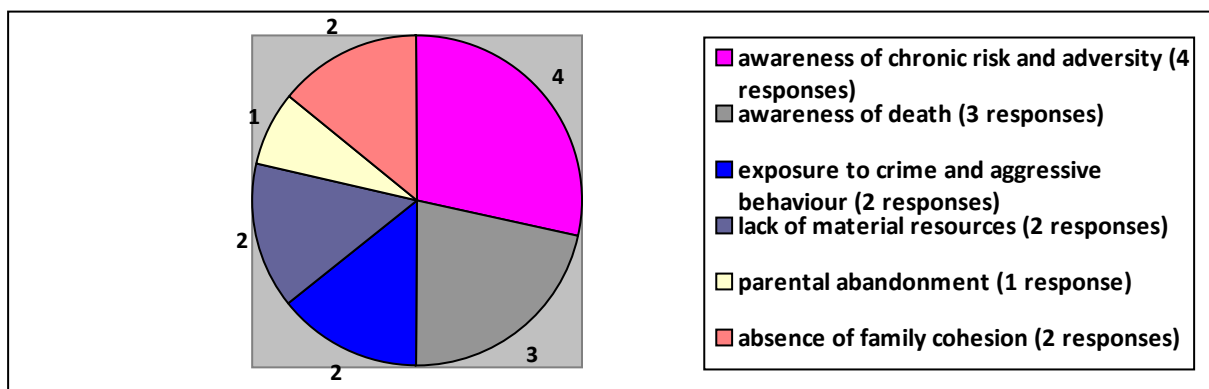
Figure 4.4:   Distribution of external risk factors

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[23] Family cohesion refers to the child experiencing the family system as a unit, as well as experiencing positive relationships within that unit to such an extent that the child and feels an integrated part of the family.

As indicated in Figure 4.2 and 4.4 it is evident that the most prominent risk factor is maladaptive coping strategies which is internal to the children and was identified in eight of the participants' stories. The two external environmental risk factors that emerged with the highest frequency were awareness of chronic adversity (identified in four participants' stories), and the awareness of death (identified in three participants' stories). Although the internal protective resource most often mentioned was problem focussed coping (Figure 4.1). It was also clear that participants mostly expressed external protective resources as significant (Figure 4.3).

4.2.2 Results relating to the quantitative data source

I made use of secondary data analysis (pre-existing data), for the analysis of the Child Behavior Checklist (CBCL/6-18). I used scale scores to determine the levels of resilience reported by mothers according to the CBCL/6-18 syndrome scales (Appendix G). I then compared these levels of resilience as reported by the mothers to the qualitatively derived themes of resilience as projected by children in the Düss stories.

4.2.2.1   Secondary analysis of the scores from the Child Behavior Checklist

The results from the CBCL show that the majority of the participant's mothers observed that their children displayed both adaptive behaviour (protective resources) as well as maladaptive behaviour (risk factors). One of the participants' mothers indicated that her child (participant 302) portrayed only maladaptive behaviour whereas seven of the participants' (participant 534, 560, 604, 658, 675, 712 and 721) mothers indicated only the presence of adaptive behaviour. In Table 4.2 I provide a summary of the individual results obtained from the CBCL in relation to age appropriate norm groups as well as a description of the colour coding used.

Table 4.2   Summary of the results obtained from the Child Behavior Checklist of individual participants

Participant	Internalising Problems					Externalising Problems	
	Anxious/ Depressed	Withdrawn/ Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
302	C	BC	C	C	BC	C	C
382	N	N	N	N	N	N	BC
390	N	N	C	N	N	N	N
432	N	N	BC	N	N	N	N
498	N	BC	N	N	N	N	N
504	BC	N	N	BC	N	BC	N
516	BC	N	N	N	N	N	BC
517	N	N	N	N	N	C	N
534	N	N	N	N	N	N	N
560	N	N	N	N	N	N	N
602	N	N	N	C	N	C	C
604	N	N	N	N	N	N	N
652	N	C	N	N	N	N	N
656	N	N	N	N	N	C	N
658	N	N	N	N	N	N	N
675	N	N	N	N	N	N	N
712	N	N	N	N	N	N	N
716	BC	N	N	BC	N	C	N
721	N	N	N	N	N	N	N

Description of colour coding

Normal (N) (Protective resources)	The participants' score falls within the normal range for the specific age group.
Borderline Clinical (BC) (Risk factors)	Scores in the borderline clinical range are high enough to be of a concern.
Clinical (C) (Risk factors)	A sufficient amount of problems are reported to be of clinical concern.

According to the CBCL profiles internalising problems consist of three syndromes namely, anxious/depressed, withdrawn/depressed and somatic complaints which comprise of problems that are primarily within the child (Achenbach & Rescorla, 2001). High scores on these syndrome scales are indicative of children who are experiencing problems and internalise their emotions and distress (Wenar & Kerig, 2005). The ability to regulate and express one's emotions accurately and in socially acceptable ways without internalising serves as a protective resource and can be considered to be adaptive resilience-related behaviour.

According to the CBCL profiles externalising problems consists of two syndromes; rule-breaking behaviour and aggressive behaviour and primarily entails conflicts with other people and the expectations other people have for the child (Achenbach & Rescorla, 2001). High scores on these syndrome scales are indicative of children who externalise their emotions or distress by acting out in relation to others (Wenar & Kerig, 2005). The ability to manage one's behaviour and conflicts with other people in socially acceptable age-appropriate ways indicates adaptive behaviour. These adaptive resilience-related behaviours also serve as protective resources. The syndromes, social problems and attention problems are not included in either the internalising or externalising grouping (Achenbach & Rescorla, 2001). The inability to give and maintain attention could cause problems in the areas of school performance and relationships. Thus, the ability to give and maintain adequate attention serves as a protective resource. The ability to socialise and get along with children of the same age serves as a protective resource and could guard against the development of other problems.

Therefore, based on the above discussion I categorised the scores on the CBCL into risk factors and protective resources. As previously mentioned, the scores on the syndrome scales which fall within the borderline-clinical and clinical range, indicate maladaptive functioning within that specific area of functioning. Therefore, I categorised these areas of functioning as risk factors. The scores on the syndrome scales which fall within the normal range signifies adaptive functioning as these children show the ability to regulate their emotions and manage their behaviour according to socially acceptable standards. Thus, I categorised scores falling within the normal range as protective resources.

From Table 4.2 and Figure 4.4 it is apparent that according to the mothers' reports the majority of the participants generally displayed adaptive resilience-related behaviours. Most of the participants were evaluated as well adjusted without exhibiting internalising or externalising problems. In general the participants were perceived as being socially adjusted.

All of the participants were evaluated as being able to give and maintain adequate age-appropriate attention, with the exception of one (participant 302).
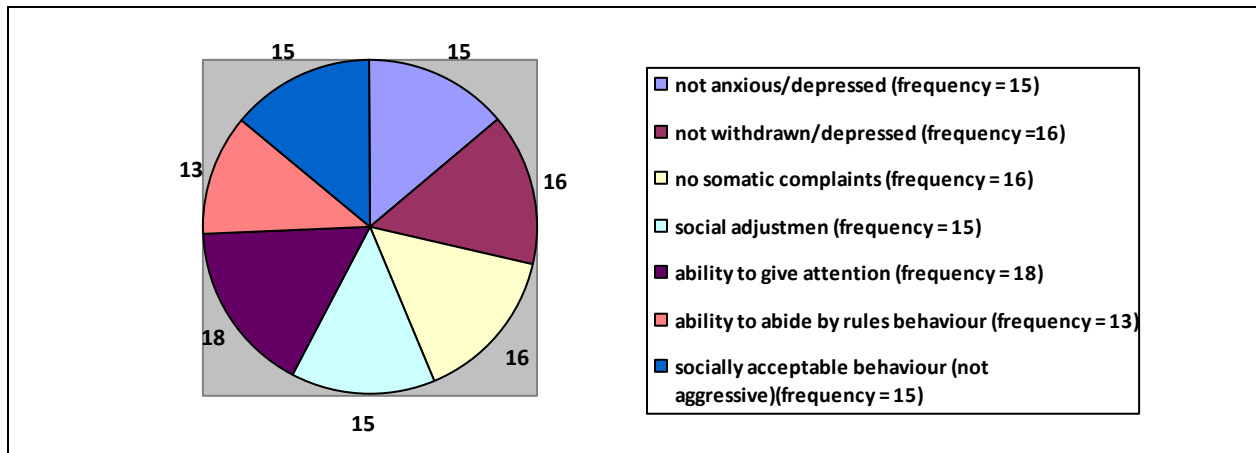
Figure 4.5   **Distribution of protective resources according to the CBCL**

Evident from Figure 4.5 below, the maladaptive risk-related behaviours that the most participants presented with were externalising problems firstly relating to rule-breaking behaviours (n=6) and secondly to aggressive behaviours (n=4). More participants presented with internalising problems that fall within the anxious/depressed (n=4) category than those that fall within the withdrawn/depressed (n=3) category. More participants presented with social problems (n=4) than with somatic complaints (n=3). Only one participant was reported to experience problems with attention (participant 302).
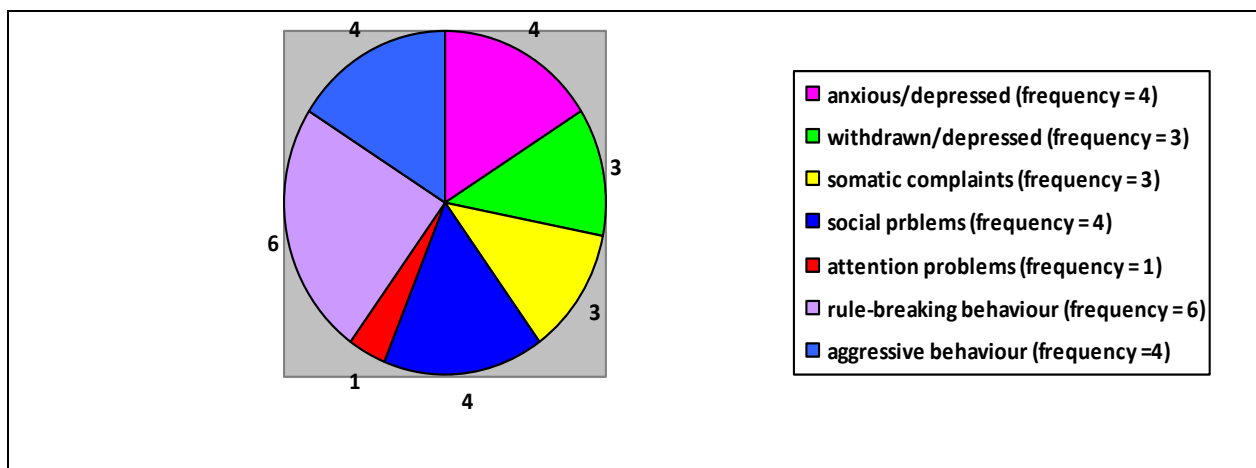
Figure 4.6   **Distribution of risk-related behaviours according to the CBCL**

4.2.3 Comparing the themes identified from the Düss fable with the scores from the Child Behavior Checklist

4.2.3.1 Correlation between Düss themes and CBCL scores

After the identification and categorisation of the themes from the Düss fables I compared these themes to the scores from the CBCL. As stated, I decided based on literature (Achenbach & Rescorla, 2001; Wenar & Kerig, 2005) that high scores ranging from borderline-clinical to clinical probably signify risk factors, whereas scores within the normal range most likely signifies protective resources.

The various **categories of risk and protective factors** identified from the Düss fables relates to the risk and protective factors on the CBCL and can be seen as the children's **manifestations of problematic behaviour or the absence of problematic behaviour**. To illustrate this I discuss the case of participant 602 as exemplar. Based on the analysis of her Düss fable it was clear that she showed determination ('They kept on trying over and over', line 1[24]) as well as willpower ('calling their parents by blowing whistles', line 2) and takes action when faced with a problem ('crying for help', line 2). She shows the ability to identify, understand and express emotions (EI) ('got angry', line 2). These protective resources relates to her mother's report of the absence of behaviours associated with internalising problems [scores falling within the normal range on the anxious/depressed (57), withdrawn/depressed (58) and somatic complaints (64) scales]. It is also reflected in her ability to give and maintain adequate attention as reported by her mother on the CBCL [attention problems scale scores = normal (55)]. From her Düss story it is evident that she makes use of maladaptive coping strategies ('fell back on the ground again', line 3), and experiences some negative emotions ('crying', line 1). She is aware of chronic risk and adversity ('birds were sitting on the ground waiting to fly back to the tree, no they could not do it', line 1; 'they fell back on the ground again', line2) as well as death ('and they died', line 2). She has been exposed to crime ('They were eventually stolen by people, killed and eaten up', line 1) and aggressive behaviour ('the adult birds who were now human beings got angry, picked up beer bottles, broke them and stabbed those people', line 5) and perceives her family as disengaged ('calling their parents by blowing whistles but it did not help', line 3). These risk factors are expressed as social problems [scale score = clinical (73)], rule-breaking behaviours [scale score = clinical (79)] and aggressive behaviours [scale score = clinical (75)] as reported by her mother on the CBCL.

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[24] Refer to Table 4.1.

The **risk factors** identified from the Düss fables reflects as high scores (risk factors) on the CBCL **syndrome scales** indicating either/or internalising, externalising, social and attention problems. This can be seen in the case of participant 716. From the analysis of his Düss story, it was apparent that he makes use of maladaptive coping strategies ('left on the ground they fell on', line 1). His story indicated that he is aware of death ('they died and were put inside their coffins', line 1) and perceives his family as disengaged ('So they were left on the ground', line 1). His mother scored him high [borderline-clinical (66)] on the anxious/depressed CBCL syndrome scale. His mother also reported that he experienced social problems [scale score = borderline-clinical (67)] and indicated that he presented with rule-breaking behaviours [scale score = clinical (73)].

The **protective resources** that were identified from the Düss fables reflected as **good adjustment** (protective resources) as is noticeable in the **absence of problem areas** of functioning on the CBCL syndrome scales. In order to illustrate this I discuss the case of participant 658 as exemplar. His Düss story indicated the availability of food, shelter and safety ('cooked for the children', line 1 and 'father came back to look after the children', line 4). He showed the capacity to navigate towards available individuals (parents) for help ('children went out to play and came back to the house', line 1) and he experiences a sense of belonging within his family ('mother came and cooked for the children', line 1 and 'father came back to look after the children', line 3). The indicated protective resources correlate with his mother's report on the CBCL. His mother indicated that he does not present with any internalising problems [scores fall within the normal range on the anxious/depressed (62), withdrawn/depressed (54) and somatic complaints (53) scales] or externalising problems [scores fall within the normal range on the rule-breaking (53) and aggressive behaviour (53) scales]. She also reported that he has the ability to give and maintain adequate attention [attention problem scale score = normal (52)] and that he was socially well adapted [social problems scale score = normal (53)].

From the above examples it is apparent that the data gathered from the Düss fables correlated with the data gathered from the CBCL [with the **exception of one** participant (721), which will be discussed in 4.2.3.3]. The **majority** (18) **of the participants' Düss themes correlated** with the data from the CBCL. It is illustrated in the case of participant 302. Only **risk factors** were identified in **both the assessment measures**. The analysis of her Düss story indicates that she made use of maladaptive coping strategies ('I don't know', line 1 and 'I don't want to talk anymore', line 2) such as resistance and reluctance. This correlated with the findings from the CBCL as her mother reported that she experienced both internalising problems [anxious/depressed scale score = clinical (84), withdrawn/depressed scale score =

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borderline-clinical (68), somatic complaints scale score = clinical (72)] and externalising problems [scores on both the rule-breaking behaviour scale (74) and the aggressive behaviour scale (75) fall within the clinical range]. According to her mother she also struggled with the inability to give and maintain adequate attention [attention problems scale score = borderline-clinical (69)] and she experienced social problems [social problems scale score = clinical (72)].

Protective resources as well as risk factors were identified on **both assessment measures** in the cases of participants 498, 516 and 602. In the cases of these three participants the areas of adaptive functioning as reported by their mothers were corroborated by their own expression of protective resources in their stories. To illustrate this I discuss the case of participant 516. He expressed a sense of belonging ('father built a garage and they were all happy', line 1) within his family, the use of problem focussed coping ('they got on something that helped them to leave' participant 516, line1), emotional intelligence ('they became happy', participant 516, line 2) and positive future expectancies ('they lived happy', participant 516, line 1). There was also an indication of negotiation of health resources ('they went to the police station and they put them of a fire truck', participant 516, line 1) and the navigation towards positive institutions ('somebody called police-birds' participant 516, line2). The areas of growth indicated as maladaptive functioning on various syndrome scales in the CBCL was corroborated by the specific risk factors identified from his story. These include exposure to crime and aggressive behaviour ('ran into tsotzi-birds and took one of them', participant 516 line1), awareness of chronic risk and adversity ('found the house destroyed...then it rained', participant 516 line, 2 and 3) and the experience of negative emotions ('they were afraid' participant 516, line 1).

Only protective resources were identified when comparing the **two measures** for participant 658 and participant 712. The various protective resources that were expressed by the participants are corroborated by the **absence of behaviour problems** as reported by their mothers in the CBCL. From the analysis of participant 712's Düss fable it was clear that she made use of problem focussed coping ('They flew to a tree and they made another nest', line 1) when faced with a problem. The results of the CBCL indicated that her mother' reported no internalising problems [scale scores fall within the normal range on the anxious/depressed (57), withdrawn/depressed (50) and somatic complaints (50) scales] and no externalising problems [scores fall within the normal range on the rule-breaking behaviour (53) and aggressive behaviour (59) scales]. Her mother also reported that she had the ability to give and maintain adequate attention [score = normal (51)] and that she was socially well

adapted [score = normal (60)]. In Table 4.3 I present a summary of the comparisons and corresponding results gathered from both the Düss fables and the CBCL.

Table 4.3   Correlation between the CBCL results and the Düss themes

	Düss themes identified		CBCL syndrome scale	
	Risk Factors	**Protective Resources**	**Risk Factors**	**Protective Resources**
302	Maladaptive coping		Anxious/depressed Withdrawn/depressed Somatic complaints Social problems Attention problems Rule-breaking behaviour Aggressive behaviour	
498	Lack of problem solving skills	Sense of belonging Availability of material resources	Withdrawn/depressed	Not anxious/depressed No somatic complaints Adaptive social functioning Ability to give attention Ability to abide by rules Socially acceptable behaviour
516	Exposure to crime and aggressive behaviour Awareness of chronic risk and adversity Negative emotions	Negotiation of health resources Sense of belonging Navigation towards positive institutions Problem focussed coping EI positive future expectancies	Anxious/depressed Aggressive behaviour	Not withdrawn/ depressed No somatic complaints Adaptive social functioning Ability to give attention Ability to abide by rules
602	Maladaptive coping Negative emotions Awareness of chronic risk and adversity Awareness of death Exposure to crime and aggressive behaviour Absence of family cohesion	EI Resolve / agency	Social problems Rule-breaking behaviour Aggressive behaviour	Not anxious/depressed Not withdrawn/ depressed No somatic complaints Ability to give attention
658		Navigation towards Positive institutions Sense of belonging Availability of material resources		Not anxious/depressed Not withdrawn/depressed No somatic complaints adaptive social Functioning Ability to give attention Ability to abide by rules Socially acceptable behaviour

	Düss themes identified		CBCL syndrome scale	
	Risk Factors	**Protective Resources**	**Risk Factors**	**Protective Resources**
712		Problem focussed coping		Not anxious/depressed
				Not withdrawn/depressed
				No somatic complaints
				Adaptive social functioning
				Ability to give attention
				Ability to abide by rules
				Socially acceptable behaviour

4.2.3.2   Results from measures enrich each other

In some instances, the findings from the CBCL informed the information gathered from the Düss fables. There were also examples were the information gathered from the Düss fables informed the findings of the CBCL. After comparing results from both measures, it is evident that in the majority (18) of the cases the information gathered from the CBCL **enriched** the information gathered from the Düss fable and vice versa. The case of participant 382 is a good example of where the **measures enriched each other's results**. Participant 382's Düss story gave evidence that he made use of maladaptive coping strategies ('fell on the ground and died', line 1), lacked problem solving skills ('the little birds fell on the ground', line 1) and that he is aware of death ('died', line1). The report from his mother on the CBCL indicated that he displays aggressive behaviour [borderline-clinical range (66)]. Here the risk factors identified from his Düss fable inform and enrich the risk factors identified from the CBCL, as the risk factors expressed in his story portrays his conscious and/or unconscious thoughts and feelings.

These thoughts of death and feelings of sadness, solitary and anxiety manifest as aggressive behaviour [as indicated by the score (66) which fall within the borderline-clinical range on the aggressive behaviour scale]. He did not express any protective resources in his story. However, his mother indicated that he has the ability to give attention [attention scale score = normal (51)] and abide by rules [rule-breaking behaviour scale = normal (64)]. She reported no internalising problems [scores fall within the normal range on the anxious/depressed (50), withdrawn/depressed (50) and somatic complaints (57) scale] and reported that he portrays socially adaptive behaviour [social problems scale score = normal (60)]. Here it is evident that the reports from the mother on the CBCL informed and enriched the data gathered from his story by indicating areas of adaptive functioning from the mother's perspective.

In the case of participant 534 the information gathered from the **Düss fable enriched the results of the CBCL**. From the analysis of her Düss fable it was clear that her environment

provided material resources ('They also drink milk', line 2) and that she presented with emotional intelligence ('He loves them', line 1). She made use of problem focussed coping ('Then they flew and got in a tree', line 1) when faced with a problem and has a sense of spirituality and/or identification with religious groups ('belong to Jesus', line 2). She also expressed positive future expectancies ('The wind took them to heaven', line 1), the availability of material resources, navigation towards positive institutions ('a friend of mine', line 1) and a sense of belonging ('followed their parents to another tree', line 1) within her family. This correlates with the results from the CBCL. Her mother reported no internalising problems [low scores on the anxious/depressed (51), withdrawn/depressed (54) and somatic complaints (53) scales] or externalising problems [low scores on the aggressive behaviour (50) and rule-breaking behaviour scales]. Her mother indicated that she was socially well adapted [social problems = normal (56)] and portrayed the ability to give and maintain adequate attention [attention problems = normal (50)]. However, certain external risk factors were also identified from her Düss fable namely; an awareness of death ('The wind took them to heaven…the birds belong to Jesus', line 1 and 2) and the lack of shelter ('they sat on the tree and felt cold' line 1). The Düss fable enriched the results from the CBCL by eliciting information on risk factors as well as providing more detailed and specific protective resources that is related to the broader categories of functioning on the CBCL.

In the case of five participants (382, 432, 504, 656 and 716), **risk factors** were identified by **both measures**. However, the CBCL provided additional information with regard to the areas of functioning where the participants did not experience problems and displayed adaptive resilience-related behaviour. This can be seen in the case of participant 432. She expressed a lack of problem solving skills ('the birds slept on the ground', line 1) and maladaptive coping skills ('slept on the ground and slept again … they woke up and left', line 1, 2 and 3) in her Düss story and this absence of coping skills can be seen in her manifestation of somatic complaints [score = borderline-clinical (67)] as reported by her mother on the CBCL. However, the CBCL provided additional information with regard to her adaptive functioning; her mother reported that she did not display any other problem behaviours associated with internalising problems [evident from the low scores on the anxious/depressed (51) and withdrawn/depressed scale (50)]. She is able to abide by rules [score = normal (53)], give attention [score = normal (50)] and to behave in socially acceptable ways.

In the case of three participants (390, 517 and 652), **protective resources** were identified in **both measures**. However, the results from the CBCL also indicated that these participants experienced other internalising and externalising problems - signifying a possible need for intervention. Consider participant 517; he makes use of problem focussed coping ('they will

fly to the tree', line 1) as was identified from his Düss story. This correlates with the scores from the CBCL which shows no internalising problems [scores on anxious/depressed (59), withdrawn/depressed (50) and somatic complaints (57) scales fall within the normal range], attention [score = normal (53), social problems [score = normal (56) or aggressive behaviour [score = normal (61)]. However, the CBCL scale scores did indicate that he struggles to abide by rules [score = clinical (73)]. Therefore, a possible need for intervention with regard to discipline and behaviour could be identified from the results of the CBCL. In Table 4.4 I provide a summary of instances where the measures enriched each other.

Table 4.4   Examples of instances where the measures enriched each other

	Themes identified		CBCL syndrome scales	
	Risk Factors	**Protective Resources**	**Risk Factors**	**Protective Resources**
382	Maladaptive coping Lack of problem solving skills Awareness of death		Aggressive behaviour	Not anxious/depressed Not withdrawn/depressed No somatic complaints Adaptive social functioning Ability to give attention Ability to abide by rules
390		Problem focussed coping Navigation towards positive institutions Sense of belonging	Somatic complaints	Not anxious/depressed Not withdrawn/depressed Adaptive social functioning Ability to give attention Ability to abide by rules Socially acceptable behaviour
432	Maladaptive coping Lack of problem solving skills		Somatic complaints	Not anxious/depressed Not withdrawn/depressed Adaptive social functioning Ability to give attention Ability to abide by rules Socially acceptable behaviour
504	Maladaptive coping		Anxious/depressed Social problems Rule-breaking behaviour	Not withdrawn/depressed No somatic complaints Ability to give attention
517		Problem focussed coping	Rule-breaking behaviour	Not anxious depressed Not withdrawn depressed No somatic complaints Adaptive social functioning Ability to give attention Socially acceptable behaviour

	Themes identified		CBCL syndrome scales	
	Risk Factors	Protective Resources	Risk Factors	Protective Resources
652		Problem focussed coping Positive future expectancies Sense of belonging Availability of material resources	Withdrawn depressed	Not anxious/depressed No somatic complaints Adaptive social functioning Ability to give attention Ability to abide by rules Socially acceptable behaviour
656	Maladaptive coping		Rule-breaking behaviour	Not anxious/depressed Not withdrawn/depressed No somatic complaints Adaptive social functioning Ability to give attention Socially acceptable behaviour
716	Maladaptive coping Absence of family cohesion Awareness of death		Anxious/depressed Social problems Rule-breaking behaviour	Not withdrawn/depressed No somatic complaints Ability to give attention Socially acceptable behaviour

As previously mentioned, subsequent to the comparison of the results from both data sources, information gathered from four of the participants' **Düss results enriched CBCL scores**. Protective resources could be identified from both the data sources in the case of participants 534, 560, 604 and 675. However, the analysis of the participants' Düss fables provided more detailed and specific protective resources that related to the broader categories identified from the CBCL. Risk factors were also identified from the Düss fables while no risk factors were found from the CBCL. This phenomenon is illustrated in the case of participant 560. According to his mother's report regarding his behaviour, he did not present with any maladaptive behaviour (scores on all the syndrome scales fall within the normal range). This correlates with the protective resources of problem focussed coping ('They went inside a nest', line2), sense of belonging ('Mom and dad also went to the tree', line 1) and the availability of material resources ('They had brought food for the little birds to eat', line 1) as expressed in his story. However, the Düss story enriched these findings as a more detailed and specific risk factor (lack of material resources) that relate to the broader categories of the CBCL was identified. In Table 4.5 I present a summary of instances where the information from the Düss fables enriched the results of the CBCL.

Table 4.5   Examples of where information from the Düss fable enriched the results of the CBCL

	Düss themes identified		CBCL syndrome scale	
	Risk Factors	**Protective Resources**	**Risk Factors**	**Protective Resources**
534	Awareness of death Lack of material resources (shelter)	Problem focussed coping EI Spirituality or religious identification Positive future expectancies Navigation towards positive institutions Sense of belonging Availability of material resources (food)		Not anxious/depressed Not withdrawn/depressed No somatic complaints Adaptive social functioning Ability to give attention Ability to abide to rules Socially acceptable behaviour
560	Lack of material resources (shelter)	Problem focussed coping Navigation towards positive institutions Sense of belonging Availability of material resources (food)		Not withdrawn/depressed Not anxious/depressed No somatic complaints Adaptive social functioning Ability to give attention Ability to abide to rules Socially acceptable behaviour
604	awareness of chronic risk and adversity	problem focussed coping resolve / agency sense of belonging navigation towards positive institutions availability of material resources		not anxious/depressed not withdrawn/depressed no somatic complaints adaptive social functioning ability to give attention ability to abide by rules socially acceptable behaviour
675	awareness of chronic risk and adversity	problem focussed coping availability of material resources		not anxious/depressed not withdrawn/depressed no somatic complaints ability to give attention ability to abide by rules socially acceptable behaviour

4.2.3.3   Discrepancy between results

As mentioned earlier, there was a discrepancy between the results of the two data sources in the case of participant 721. Based on the analysis of her Düss fable two categories of risk factors were identified namely parental abandonment ('the parents took them and threw them in the forest', line 1) and awareness of death ('they fell, got injured and died', line 1). However, this was not corroborated by the findings from the CBCL. Her mother indicated that she does not present with any internalising problems [scores fall within the normal range on the anxious/depressed (59), withdrawn/depressed (54) and somatic complaints (50) scale] or

externalising problems [scores fall within the normal range on the rule-breaking behaviour (51) and aggressive behaviour (52) scale]. Her mother evaluated her as well adjusted socially [social problems scale score = normal (53)] with the ability to give and maintain adequate attention [attention problems scale score = normal (52)]. In Table 4.6 I present a summary of the case where there was a discrepancy between the CBCL scores and Düss themes.

Table 4.6   Discrepancy between the CBCL scores and Düss themes

	Themes identified		CBCL syndrome scales	
	Risk Factors	**Protective Resources**	**Risk Factors**	**Protective Resources**
721	Parental abandonment Awareness of death			Not anxious/depressed Not withdrawn/depressed No somatic complaints Adaptive social functioning Ability to give attention Ability to abide by rules Socially acceptable behaviour

4.3   SUMMARY

In this chapter I presented the results of the study with regards to the qualitative and quantitative measures that were used. I presented the qualitative data in terms of themes and subthemes. I also presented the scores obtained from the quantitative data source. I compared the scores obtained from the Child Behavior Checklist (quantitative data) with the identified themes of the Düss fable (qualitative data). In the following chapter, I present findings and address the research questions. I also provide recommendations based on the findings from the study. In conclusion, I discuss the limitations of the study.

CHAPTER 5

FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1   INTRODUCTION

The aim of this study was to explore the utility of a Düss fable for the cross-cultural measurement of resilience in young children. Chapter 1 primarily provided an orientation to the study by presenting concise discussions of the problem and purpose statement, conceptualisation and methodological paradigms used. This was followed by a review of the available literature in Chapter 2, which mainly focussed on the cross-cultural measurement of resilience in young children. Chapter 3 provided a discussion on the research process, design and methodological perspective. The results of the study were presented in Chapter 4.

In this final chapter I discuss the findings by exploring the significance of the results against existing literature to identify similarities and contradictions. Thus, whereas in the previous chapter I presented the themes of resilience and its related categories, in this chapter I synthesise the findings of the study with literature to attain a coherent whole of the phenomena under study (Mouton, 2001). Consequently, I present the findings as integrated with interpretations and substantiations from literature. I address the research questions as formulated in Chapter 1 and provide conclusions that can be drawn from this study. Furthermore, I discuss the possible limitations of the study and conclude with recommendations for future research and practice.

5.2   SYNTHESIS OF FINDINGS AND LITERATURE CONTROL

5.2.1   Instances where literature supports the results

As previously mentioned, certain themes of resilience (protective resources) and non-resilience (risk factors) were identified from the child-participants' Düss fables as well as from the CBCL.   Various protective resources were identified as situated within the child-participants themselves and others were situated within the child-participants' environments. This corresponds with existing knowledge on resilience as research shows that protective resources are mainly found within three primary areas, namely: within the child, within the family and within the community (Masten & Reed, 2002; Vanderbilt-Adriance & Shaw, 2008).

a) The Düss measures protective resources within the child and the child's environment which align with existing knowledge

The qualitative data analysis indicated that some of the participants expressed attributes related to **emotional intelligence**. These include the ability to identify, understand and express emotions within themselves and others. The expression of these emotional intelligence-related attributes is age-appropriate as children in the middle childhood years have gained more emotional maturity (Green, 2001) and have an increased ability to understand complex emotions (Louw & Louw, 2007). They have become more accomplished at recognising and talking about their own and other individuals' emotions (Louw & Louw, 2007) and therefore developed an enhanced capability to judge the social appropriateness of emotional expression (Wenar & Kerig, 2005) that is in line with their culture (Saarni in Durmuşoglu-Saltali & Arslan, 2011, p. 536). Emotional intelligence could serve as a protective resource by enabling children to cope better with negative experiences and related emotions. The presence of emotional intelligence motivates the development of adaptive behaviour (Mayer & Salovey in Salovey, 2004, p. 33) and improves children's interpersonal and intrapersonal problem-solving skills. Therefore, emotional intelligence could serve as a buffer (Ebersöhn & Maree, 2006) against the development of internalising and externalising problems.

In one instance, a participant expressed **spirituality** and **identification with religious beliefs and/or groups,** signifying an internal protective resource. Spirituality plays an important part in most individuals' lives (Foy, Drescher & Watson, 2011), especially in people from African (Viljoen, 2002) cultures. Religious identification and conviction is generally believed to be an internal resource for coping with adversity (Solomon & Laufer, 2005). Killian (2005) is of the opinion that a resilient child in all probability has a deep-rooted set of spiritual and ideological beliefs regarding the existence of a god or a higher power. Findings from a study conducted on Israeli youth support this view as it was found that religious children reported more psychological growth than children who were less religious (Solomon & Laufer, 2005).

As discussed in Chapter 2, the HIV/AIDS context is characterised by uncertainty and various other risk factors such as parental illness and death (as is indicative of the Kgolo Mmogo population). Nonetheless, it is believed that faith in a higher power and the engagement with religious doctrine enables children to contextualise and cope with stressors in their lives (Centre for Interdisciplinary Research on AIDS, n.d). Religious identification and/or spirituality can serve as a moderator to the child's environmental risk factors as close relationships with

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the 'church-community' or spiritual leaders can provide the child with a sense of safety, belonging and connectedness (Killian, 2005; Rochat & Hough, 2007) which in turn promotes adaptive behaviour (Choenarom, Williams & Hagerty, 2005). This is also reflected in Vanistendael and Lecomte's (in Rochat & Hough, 2007, p. 23) proposed model for resilience building. According to this model, religious or cultural practices and human engagement influence an individual's capacity for achieving meaning in life (Rochat & Hough, 2007).

Communities have their own specific cultural and religious values and beliefs regarding death, mourning processes, higher powers (ancestors, God) and the hereafter. These values and beliefs provide the child with a framework for understanding and coping with loss. It also provides the child with structure and clear cultural and/or religious guidelines on what is right and wrong as well as acceptable (adaptive) and unacceptable (maladaptive) behaviour (Killian, 2005). Kilpatrick's (in Pargament & Mahoney, 2005, p. 649) studies into child spirituality indicate parallels between a child's quality of attachment to parents and the quality of attachment to God. His work also indicated that over time, children may look to the divine in order to compensate for the inadequacy, unavailability or loss of the primary attachment figure (as is the case of many of the participants in the Kgolo Mmogo population).

Furthermore, the occurrence of the theme of **resolve and/or agency** reflects children's willpower, determination and actions when faced with a problem. The processes whereby children develop self-determination behaviours happen in social context (families): children acquire beliefs, attitudes and behaviour regulations by internalising these concepts and altering them into personal intrinsic characteristics and values (Grolnick, Deci & Ryan, 1997). The development of self-determined behaviour includes learning to set goals, solve problems, make decisions and advocate for one's needs as well as having opportunities to make choices and experience control in one's life. Therefore, self-determination behaviour signifies autonomous self-regulated actions in response to adverse circumstances in a psychologically empowered manner (Wehmeyer in Snyder & Lopez, 2005, p. 760). The capability of self-control and the facilitation of positive social relationships is a key characteristic which is generally identified in resilient children (Rochat & Hough, 2007). Therefore, children who are good at solving problems and believe in their own ability to cope with hardship, often function better in the face of adversity (Killian, 2005).

The qualitative results indicated some instances where the participants expressed **positive future expectancies**. Snyder, Rand and Sigmon (2005) states that an individual's psychological health is related to their habitual expectancy of future well-being. Fundamental to positive expectancy is optimism and hope (Worthen & Isakson, 2011). Positive expectancy

refs to the confidence children have regarding the attainment of goals. Confidence in the attainment of goals will progress into actions and continued efforts at achieving one's goal. Furthermore, confidence in the ultimate attainment of one's goal results in continuous goal directed actions, regardless of adversity. This relates to optimism, as optimistic individuals are most likely to believe in their own ability to handle adversity. They expect positive outcomes even when faced with hardship. Optimism is related to the use of problem-focussed coping strategies, (acceptance if problem-focussed coping is not possible), humour and positive reframing (Carver & Scheier, 2005). Hope and optimism aid children in coping with adversity and leads to improved satisfaction with life (Worthen & Isakson, 2011).

The **availability of material resources** and **negotiation for health resources** were identified as protective resources found within the child-participants' environments. The availability of material resources such as shelter, clothing, food and nutrition is especially important during early childhood as there is a continued need for physiological resources that promote growth and development (Cameron, Ungar & Liebenberg, 2007; Masten in Vanderbilt-Adriance & Shaw, 2008, p. 34) and indirectly enhance the attainment of developmental outcomes, adaptive coping strategies and subsequently, child-functioning. Findings from the International Resilience Project (Ungar, 2008) identified the availability of material resources as one of the 'tensions' youth should navigate for resolutions in order to portray resilience. The occurrence of the theme 'negotiation for health resources' corresponds with literature (Ungar *et al.,* 2007): children have specific needs that must be met in order to achieve positive development. Whereas the environment provides essential resources to be accessed, regardless of adverse circumstances, the child accesses meaningful resources (that are available) via the negotiation process (Ungar, 2011).

The qualitative and quantitative results indicated that many of the children experienced positive relationships, cohesion and a **sense of belonging** within their families. In general the participants expressed themselves as socially well-adjusted and the quantitative results did not exhibit problem behaviours. Choenarom, Williams and Hagerty (2005) states that a sense of belonging promotes children's adaptive behaviours or functioning and that the absence of a sense of belonging is associated with social-emotional problems. A sense of belonging originates from experiences and relationships with supportive adults in such a way that the child feels integrated within interpersonal systems (Choenarom *et al.,* 2005; Rolfe, 2002). Many of the participants who experienced a sense of belonging within their families also presented with adaptive problem focussed coping strategies. The aforementioned is supported by authors (Boyden & Mann, 2005; Murphy & Marelich, 2008; Rolfe, 2002) who

state that resilience primarily develops by means of close relationships which promote coping skills, feelings of security and a sense of belonging in children.

Qualitative results indicated ***navigation towards positive institutions*** (that relate to the child's capacity to seek available help), as a prominent external protective resource. In most of the cases the father, mother or both parents were identified as positive individuals providing protection and a sense of security for their children. Navigation towards positive institutions coincide with a sense of belonging in that children can only navigate towards that (people, institutions and relationships) which is available and easily accessible (Ungar, 2008). Theron and Theron (2010) state that supportive family relationships (available and accessible) serve as a buffer against the negative effects of adversity, and more specifically facilitate children's adaptation in the context of HIV/AIDS. Here the complex interactional process of resilience-related variables becomes evident. The availability of material resources, parental care and positive relationships would most probably enhance a child's sense of cohesion, security and belonging. In turn these feelings of belonging probably enable the child to navigate his way towards positive institutions and negotiate for health resources to be provided in meaningful ways (Ungar, 2005).

The process of resilience takes place within certain relationships of which relationships with family members are deemed the most important. The family unit provide a place for young children to feel safe and experience a sense of belonging (Rochat & Hough, 2007). When children are connected to and surrounded by loving and caring individuals and experience a sense of belonging and hope, they are found to be more resilient (Rochat & Hough, 2007). Richter *et al.,* (in Rochat & Hough, 2007, p. 27) points out that such relationships with others enable children to cope with lack of material resources. Furthermore, hope, perseverance and connectedness are key facilitating factors of resilience – to go on in life even when faced with great adversity (Rochat & Hough, 2007)

b) The Düss measures risk factors within the child and within the child's environment which aligns with existing knowledge

The results of study also provided some insight into internal and environmental risk factors which could negatively affect the resiliency efforts of the participants. The results of the CBCL indicated that some the child-participants presented with risk-related behaviours. These behaviours include internalising behaviours, externalising behaviours such as rule-breaking behaviour, aggressive behaviour, social problems and attention problems.

Maladaptive coping was identified as the most prominent internal risk factor as expressed by the children. However, most of the risk factors were found to be situated within the children's environment. The qualitative results provided more contextualised descriptions on the participants' coping behaviours. The majority of the children expressed an *awareness of chronic risk and adversity* as well as **death**. There were isolated instances where the participants' stories gave evidence of **exposure to crime and aggressive behaviour** as well as **lack of material resources**. This relates to findings of a research study conducted by Rochat and Hough (2007) with children affected by HIV/AIDS in South Africa. Findings from this study indicated that the children experienced their communities as unsafe, characterised by recurring adversity and that they were exposed to crime and violent behaviour. In the South African landscape, and particularly the HIV/AIDS context, children are at risk of prematurely being exposed to grief and bereavement (Murphy, *et al.,* 2006) as well as crime and violent behaviour. Research shows that poverty, crime, discrimination and limited access to basic services are some of the risk factors children affected by HIV/AIDS face (Foster & Williamson, 2000). Thus, the emergence of the themes, awareness of death, chronic adversity and lack of material resources is characteristic of the experiences of children living within an HIV/AIDS context (Sherr, 2004).

HIV/AIDS has its most immediate effect on children's home environments (Brandt in Dawes *et al.,* 2007, p. 362). As previously mentioned, maternal psychological illness and well-being (depression and anxiety) influence the interactions between mother and child (Richter, *et al.,* 2009). Subsequently, it affects children's experiences of being loved and their sense of belonging within the family system (Richter, 2004). This coincides with the study's findings. Qualitative results showed one instance where the participant felt abandoned by his parents and some instances where the children experienced their families as fragmented.

Some of the participants presented with *lack of problem solving skills* and expressed *negative emotions*. Children's behaviour serves as a vehicle for communication (Finestone, 2004). When children's basic needs of loving, stable relationships, a sense of belonging and material resources (Hagerty, *et al.,* 2002) are not met by their environment (Cook & Du Toit, 2005) it manifests as internalising and/or externalising problem behaviours. These include negative emotions, problem solving skills, aggressive and anti-social behaviour.

When children are faced with chronic and cumulative risk, they are in particular need of stability, affection and reassurance (Richter *et al.,* in Rochat & Hough, 2007, p. 27). Children's basic needs for food, clothing and shelter must be met. They need consistent, responsive care from significant individuals in their lives in order to experience belonging and

identity. Oftentimes everyday practices are provided by families stretched and strained by financial, emotional and environmental difficulties (Rochat & Hough, 2007) which pose as risk factors that impede children's resiliency efforts. This is particularly true for individuals living in an HIV/AIDS context.

5.2.2 Instances where literature contradicts results

Young children primarily make use of emotional focussed coping when faced with adversity and stress (Ebersöhn & Eloff, 2002). However, coping is a multifarious process that is influenced by personality characteristics, demands from the individual's environment as well as the resources provided by the environment (Folkman & Moskowitz in De Boo & Wicherts, 2009, p. 2). The qualitative data results indicated that ***problem focussed coping*** was the internal protective resource mostly used among participants. The middle childhood years is characterised by the emergence of more complex language and metacognitive abilities (Compas *et al.*, in Zimmer-Gembeck, 2011, p. 12). During this stage of development coping skills become more distinguished and differentiated (Zimmer-Gembeck & Skinner, 2011). Zimmer-Gembeck and Skinner (2011) reviewed multiple empirical studies on coping and found that coping strategies become increasingly more problem-focussed during the middle childhood years. Even though existing knowledge show that young children use emotion focussed coping when faced with adversity, the results from my study indicate that it might be valid to state that in some instances young children make use of problem focussed coping strategies when faced with adversity.

5.3 SITUATING FINDINGS WITHIN THE ECOLOGICAL AND SOCIAL CROSS-CULTURAL MODEL (Dasen, 2003)

The ecological and social cross-cultural model serves as a framework for understanding child development in context. Fundamental to this model is the idea that all psychological phenomena are adaptations to specific cultural and ecological contexts (Lonner & Adamopoulos, 1997). This model underscores the significance of the child, family and community functioning within the larger culture (Dasen, 2003). The systems that most prominently influence the development of children are their family system and the immediate community (Dasen, 2003).
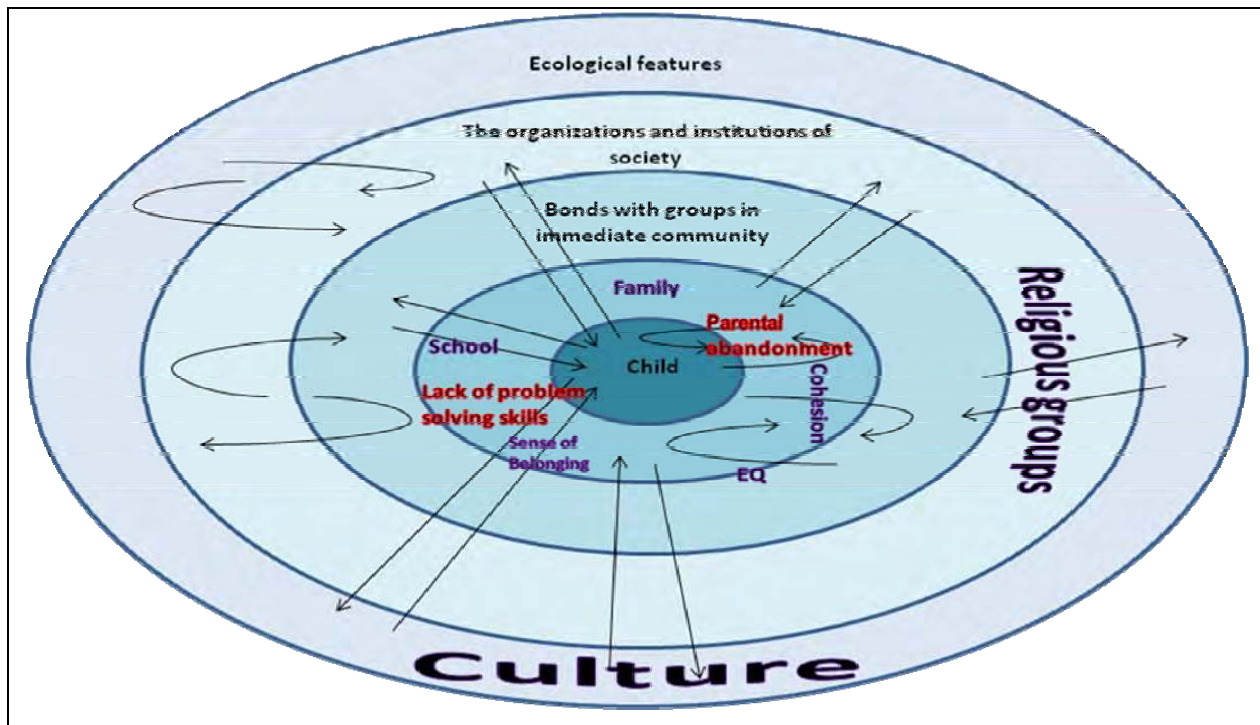
Figure 5.1   Situating findings in the ecological and social cross-cultural model
(adapted from Dasen, 2003)

In Figure 5.1 I illustrate my understanding of how the findings indicate the emergent themes of resilience and its complex nature. I found that children possess certain qualities or characteristics such as emotional intelligence, resolve, and positive future expectancies which facilitate their coping and functioning in the face of adversity. I also found that these qualities are influenced by and interact with environmental factors such as the availability of material resources and a sense of belonging that buffer the child against the adverse effects of risk and adversity and also promote adaptive functioning. The aforementioned is supported by Ebersöhn and Maree (2006) who states that certain individual characteristics such as problem solving skills as well as environmental resources such as supportive parents (caregivers), promote resilience in children. Ungar (2007) also supports this view by stating that resilience is the quality of the child's environment which provide protective resources as well as the individual characteristics of the child. Vanderbilt-Adriance and Shaw (2008) concur by stating that individual attributes such as coping strategies serve as moderators to risk and they emphasise the influence of external factors such as the child's environment on the child's developmental outcomes and functioning. In essence, children who are adaptable, possess problem solving skills, who remain hopeful and have positive future expectancies, and show determination by actively taking control over their lives are likely to be more resilient than children who do not possess these qualities (Punamaki in Boyden, 2005, p. 7).

5.4   CONCLUSIONS IN TERMS OF THE RESEARCH QUESTIONS

The primary question that guided this study was: 'What is the utility of a Düss fable as cross-cultural measure of resilience in young children?' To be able to answer the aforementioned question, the following secondary questions had to be addressed.

What are the themes of resilience that emerge from children's responses to a Düss fable?

The Düss fable was used in this study to explore its effectiveness for the measurement of resilience. In order to measure whether a child is resilient, one should judge whether there is positive adaptation in the face of risk or adversity. Therefore, to measure resilience the Düss fable should elicit information on both risk and adaptation.

Themes of both resilience and non-resilience emerged and were significantly situated within the children's environments. The core themes of resilience (protective resources) that were identified are related to the participants' coping strategies (problem focussed coping), their experience of a sense of belonging and positive relationships within the family context, the availability of material resources such as food clothing and shelter as well as the child's ability to navigate towards available positive institutions. Other themes of resilience emerged with less prominence namely, emotional intelligence, spirituality or religious identification, resolve/agency and negotiation of health resources.

The core themes of non-resilience (risk factors) that were identified relate to child-participants' coping strategies (maladaptive coping strategies), their awareness of chronic risk and adversity and their awareness of death. Other themes that emerged where lack of material resources, parental abandonment, absence of family cohesion and exposure to crime and aggressive behaviour.

What are the levels of resilience of children as reported by their mothers according to the CBCL?

The CBCL was included in the study to provide insight into the perspectives of the participants' mothers with regards to their children's functioning in order to triangulate the findings from the Düss fables. Although, predominantly the mothers mostly perceived their children as well adjusted, they also indicated the presence of maladaptive behaviour

(together with adaptive behaviour) on the CBCL. Adaptive behaviour signifies protective resources (resilience) whereas maladaptive behaviour signifies risk factors (non-resilience). In general the children were evaluated as being able to abide by rules, to give and maintain adequate attention and being capable of behaving in socially acceptable ways. The results indicated that the maladaptive risk-related behaviours that most of the mothers reported were externalising problems which manifested as rule-breaking and aggressive behaviour.

How do resilience results compare in terms of the Düss story and the CBCL?

Themes of resilience (protective resources) and non-resilience (risk factors) were identified in both measures. The various categories of risk and protective factors identified from the Düss fables relate to the risk and protective factors on the CBCL (Table 5.1). It was found that the risk factors identified from the Düss fables reflects as high scores (risk factors) on the CBCL syndrome scales. The protective resources identified from the analysis of the Düss fables reflected as good adjustment (protective resources) as is noticeable in the absence of problem areas on the CBCL syndrome scales.

Mostly, the data gathered from the Düss fables correlated with the data gathered from the CBCL. In some instances only risk factors were identified in both the measures. In other instances only protective resources were identified when comparing the two measures. Similarly, protective resources as well as risk factors were identified in both measures.

There were instances where the interpretation of the CBCL scores provided information that informed the information gathered from the Düss fables. In some instances the CBCL provided additional information regarding specific areas of functioning where the participants displayed adaptive functioning, not expressed by the participants' Düss fables. Conversely, the CBCL indicated areas of maladaptive functioning that was not indicated in the participants' Düss fables. In one instance the participant (382) expressed the presence of maladaptive coping strategies, lack of problem solving skills and an awareness of death. Correspondingly, his mother reported that he displays high levels of aggressive behaviour. The participant's unconscious and conscious thoughts (of death) and emotions (sadness, solitary, anxiety) manifests as aggressive behaviour on the CBCL. As indicated on the CBCL, no other problem areas were identified. This is an example of how the CBCL enriched the data gathered from the Düss fable in identifying areas of adaptive functioning that was not expressed in the participant's story.

In the majority of the cases the results from the measures enriched each other. There were several examples where the Düss fable enriched the results of the CBCL. In many of the cases protective resources could be identified from both the data sources. However, the Düss fables provided more contextualised information regarding the protective resources related to the broader categories on the CBCL.

The interpretation of the results indicated a discrepancy between the results from both measures in the case of only one participant. In this instance, the scores on the CBCL signified only high levels of resilience as indicated by the mother while two categories of risk factors were identified from the child's Düss fable. This example underscores the feasibility of including a measure, such as the Düss fable, to provide information from a child's perspective on their own resilience and/or functioning.

Table 5.1   Summary of themes of resilience and non-resilience identified from both data sources

	Themes of resilience and non-resilience	
	Protective resources	**Risk factors**
Düss fable	Problem focussed coping	Maladaptive coping
	Positive future expectancies	Lack of problem solving skills
	Resolve / agency	Negative emotions
	Spirituality / religious identification	Awareness of chronic risk and adversity
	Emotional intelligence	Awareness of death
	Navigation towards positive institutions	Exposure to crime and aggressive behaviour
	Sense of belonging	Lack of material resources
	Availability of material resources	Parental abandonment
	Negotiation of health resources	
CBCL	Absence of anxiety / depression	Anxious/depressed
	Absence of being withdrawn / depression	Withdrawn/depressed
	Absence of somatic complaints	Somatic complaints
	Adaptive social functioning	Social problems
	Ability to give attention	Attention problems
	Ability to abide by rules	Rule-breaking behaviour
	Socially acceptable behaviour	Aggressive behaviour

> **What is the utility of a Düss fable as cross-cultural measure of resilience in young children?**

From the results, it can be concluded that the Düss fable has utility as a valuable and practical instrument to measure young children's needs, thoughts, feelings and motivations with regards to resilience. The Düss fable was effective to elicit themes indicating age-related coping strategies and behaviours. The information gathered from the Düss fables provided meaningful insights into the life experiences of the children, particularly, with regard to risk factors that might impede their functioning and protective resources that are meaningful to them. From an ecological perspective, cultural and contextual background information is vital to interpret children's stories to reach informed conclusions. The researcher or psychologist using the Düss, requires knowledge on using and interpreting projective techniques especially, when working with young children.

There were instances where the participants' responses were rich and detailed, providing valuable insight into their life experiences, emotions, coping skills and environmental circumstances. In some instances participants responded with reluctance and resistance (lean stories) and consequently gave limited responses. Nevertheless, when interpreting these lean stories in conjunction with the results from the CBCL, valuable insights could still be attained. Participant 302's story was categorised as a lean story. Her response to the Düss fable was 'I don't know I, don't want to talk anymore' signifying the use of maladaptive coping strategies (resistance and reluctance). Her mother reported high scores on all the CBCL syndrome scales, also signifying maladaptive coping and functioning. It is evident that she displays maladaptive behaviour when jointly interpreting the results from both measures. The majority of the participants' stories were age-appropriate and informative. However, it is recommended that the Düss fable be used in conjunction with other age and cultural appropriate assessment instruments in order to avoid biased or skewed interpretations of children's projections and expressions of the self. The use of the Düss fable in conjunction with the CBCL is highly recommended as it provides valuable information with regard to children's social, emotional and behaviour problems as well as adaptive functioning from the parents' perspective to provide multiple perspectives of children's functioning. Evident from the discussion on the previous question, the results and interpretation from both measures enriched each other and when used together, provided a nuanced analysis (understanding) of the children. Findings from the study validated the use of the Düss fable as measure of resilience in young children cross-culturally. Therefore, it can be concluded that the Düss

fable as projective story-telling technique is a valuable tool for the measurement of resilience in young children cross-culturally.

5.5   POSSIBLE LIMITATIONS OF THE STUDY

This study was an explorative study and the main limitation of an exploratory study relates to the representativeness of the study to the larger population (Babbie, 2005).   However, the aim of this study was to gain insight into, and achieve a better understanding of the phenomena under study rather than to generalise the findings to the larger population. Therefore, I do not view this as a restrictive limitation.

I conducted this study from a pragmatism paradigm. Pragmatism does not provide a detailed, clear-cut plan or a specific set of research methods that can be used during the research process (Badley, 2003).   This posed as a potential difficulty as I had to ensure that the research design, methods and strategies implemented complemented each other to enhance the validity and reliability of the study. I acquired an understanding of the various quantitative and qualitative methods and strategies that could possibly be implemented in the research process. Hereby I attempted to ensure that the design I selected could effectively answer the research questions.

The Düss fable was translated and transcribed from different languages (isiZulu, Sepedi, Setswana and Setsotho) into English and consequently certain meanings could have inadvertently been omitted. However the translation was conducted by trained professionals knowledgeable in the area of test translation and adaptation, minimising the possible exclusion of meanings. Another possible limitation related to language could be the variance in dialect in African languages. This could have had an effect on the story content and the meanings thereof. Finally, a possible limitation concerned the educational background of the adult-participants.   As these participants originate from resource scarce communities with oftentimes limited opportunities for schooling their understanding of the questions could have been influenced and consequently, could have unintentionally provided not so accurate observations of their children's behaviour.

5.6 CONTRIBUTION OF MY STUDY

In South Africa there is a need for psychological measures that is sensitive to different cultures and contexts (discussed in Chapter 2). This study is an attempt to contribute to the existing knowledge of cross-cultural psychological assessment within the South African context by providing evidence of the utility of a Düss fable for use with children from various cultures.

Themes of resilience and non-resilience were identified as expressed by the child-participants affected by HIV/AIDS. The findings contribute to the understanding of South African children's experiences and resiliency efforts when living in an HIV/AIDS context, even though the sample population was small.

> What do we know about the lives of young children affected by HIV/AIDS living in a South African community?
> We know that they are aware of poverty, crime and aggressive behaviour, death (loss) and that they feel safe, loved and cared for. We also know they are able to address adversity by making use of who they are (positive, determined, emotional intelligent, spiritual individuals) and people in their life-worlds (parents and friends), by navigating their way towards and negotiating for that which is meaningful to them in order to cope in sometimes unbearable situations.

5.7 RECOMMENDATIONS

5.7.1 Recommendations relating to research

In this study only one of the Düss fables was used to explore its utility for measurement of resilience in young children from various cultures. As this fable elicited such rich and valuable information from the child-participants it might be valuable to investigate the use of all of the Düss fables for the same purpose.

One of the themes that emerged was spirituality or religious identification. This theme only emerged in one participant's story. Yet, spirituality is very important in all people's lives to facilitate the process of finding meaning. This is especially true for African communities

where spirituality and mysticism is deeply rooted culturally (Mbiti in Viljoen, 2002, p. 533). During the process of literature control I found little evidence of studies that was conducted on the spiritual influence on young children's development and functioning.

Several of the participants' stories expressed a sense of belonging and coherence within the family system, while specifically mentioning the father as a positive source of protection and support. While conducting the literature review I came across many studies investigating the role of the mother as attachment figure and the influences of HIV/AIDS on their interpersonal relationships. I came across one study where the father figure emerged in themes (Rochat & Hough, 2007). However the findings contradicted the findings of my study in that the father figure emerged less frequently than the mother figure, and when they were spoken of, they were referred to as a means for financial help. I think it might be valuable to investigate the father-child relationship as a possible external protective resource specifically for young children affected by HIV/AIDS.

5.7.2   Recommendations relating to practice

I have concluded that the Düss fable as projective storytelling technique is a measurement instrument that could be effectively utilised for measuring resilience in young children from various cultures. While engaging the data and interpreting the themes I started to think that, it also might be a valuable tool for education psychologists to use in therapy. The themes relating to risk factors provided great insight into the life experiences of these children, their emotions and coping strategies. The child's narrative could be used as a point of therapeutic orientation and provide cues for intervention as could be identified from for example the theme of parental abandonment. The act of storytelling in itself could be therapeutic as it can serve as a vehicle for emotional expression in children. It could possibly provide the child with the opportunity for his 'voice' to be heard (Rochat & Hough, 2007).

5.8   SUMMARY

In this study, I explored the utility of a Düss fable for the measurement of resilience in young children cross-culturally. The findings indicated the presence of risk factors and protective resources within the child's ecological environment as well as in the child. The results indicated that the mothers mostly evaluated their children's functioning as adaptive and therefore more risk factors were identified from the Düss fables. The Düss fable and the CBCL can be used jointly for the purpose of assessing resilience. Finally, from the results it

can be concluded that the Düss fable is a valuable tool for the measurement of resilience in young children in a cross-cultural setting.

> *They were afraid. They did not know what three to fly to.*
> *The wind prevented them from flying. They got on something that helped them to leave. They went to the police station and they put them on a fire truck.*
> *They went to a house and found the house destroyed. The wind stopped and they got help to build another nest and they became happy. And then it rained.*
> *They went to the store and ran into tsotzi -birds and took one of them. Somebody called police birds and they took the tsotzi-birds to court. They lived happy. The father bird bought a car and built a garage and they were all happy.*
>
> (Participant 516)

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APPENDIX A

Ethical clearance
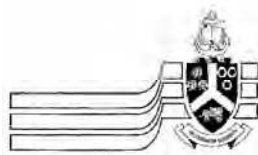
UNIVERSITY OF PRETORIA

FACULTY OF EDUCATION

RESEARCH ETHICS COMMITTEE

CLEARANCE CERTIFICATE	**CLEARANCE NUMBER :**	EP11/05/01 – 144/2005
DEGREE AND PROJECT	MEd	
	The utility of a Dűss fable for cross-cultural measurement of resilience in young children	
INVESTIGATOR(S)	Adri Grobler	
DEPARTMENT	Educational Psychology	
DATE CONSIDERED	27 September 2011	
DECISION OF THE COMMITTEE	APPROVED	

Please note:

For Masters applications, ethical clearance is valid for 2 years

For PhD applications, ethical clearnace is valid for 3 years.

CHAIRPERSON OF ETHICS COMMITTEE	Prof L Ebersohn
DATE	27 September 2011
CC	Prof I. Eloff
	Prof. L. Ebersöhn
	Jeannie Beukes

This ethical clearance certificate is issued subject to the following conditions:

1. A signed personal declaration of responsibility
2. If the research question changes significantly so as to alter the nature of the study, a new application for ethical clearance must be submitted
3. It remains the students' responsibility to ensure that all the necessary forms for informed consent are kept for future queries.

Please quote the clearance number in all enquiries.

APPENDIX B

Participants' Düss fables

Participant 302

I don't know. I don't want to talk anymore.

Participant 382

The Little birds fell on the ground and died.

Participant 390

They flew to another tree. Their father helped them.

Participant 432

The birds slept on the ground. Then they woke up and slept again. Then they woke up and left.

Participant 498

They were fast asleep in the nest and a big storm cam and shaken the tree and they fell down. The mother and the father went back to the tree.

Participant 504

I don't know.

Participant 516

They were afraid. They did not know what tree to fly to. The wind prevented them from flying. They got on something that helped them to leave. They went to the police station and they put them on a fire truck. They went to a house and found the house destroyed. The wind stopped and they got help to build another nest and they happy. And then it rained. They went to the store and ran into tsotsi birds and took one of them. Somebody called police birds and they took the tsotsi birds to court. They lived happy. The father bought a car and built a garage and they were all happy.

Participant 517

The little birds will also fly. They will fly to the tree.

Participant 534

The small birds followed their parents to another tree. Then they flew and got in a tree. They sat on the tree and felt cold. The wind took them to heaven. The birds belong to Jesus. He loves them. I saw them on a tree in the morning. One day I saw eggs on the tree. A friend of mine had gotten on top of a tree and showed them to me. When you leave a piece of bread outside the birds eat it. They also drink milk.

Participant 560

They had been feeling cold. They flew. They went inside a nest. Mom and dad also went to a tree where there were other little birds. They had brought the food for the little birds to eat.

Participant 602

The little birds were sitting on the ground, waiting to fly back to the tree. No, they could not do it because their wings were not yet well developed. They kept on trying over and over again but fell back on the ground again. They were eventually stolen by people, killed and eaten up. The mom and father to the little birds could not rescue them and take them back to the tree because they don't have hands like human beings to pick the little birds up. The little birds were crying for help, calling their parents by blowing whistles but it did not help. So after they were eaten up, the mother-bird and father-bird decided to change (turn) themselves into human beings and confronted the people that stole their little birds about stealing. Those people confessed that they ate the little birds. The adult birds, who where now human beings, got angry, picked up beer bottles, broke them and stabbed those people and they died. After that they changed themselves back to being birds again. It ends there. There is nothing more I know or I can say.

Participant 604

Told their father that they want to fly to the tree and their father ask them to fly to the tree and they refuse. But at the end they flew to the tree where their father is and they move to their mother's nest. And it became dark again and a strong wind start again.

Participant 652

The father went to the other tree and built another house, while the mother came and took the children to the other tree where the father was. She put them in the new house.

Participant 656

I don't know.

Participant 658

The mother came and cooked for the children. She dished out the food and left while the father came back to look after the children. The children went to play and came back to the house and never went out again.

Participant 675

They're on top of the tree. The tree was shaken and the tree fell on the ground and the kids flew to another tree and the rain was still going on.

Participant 712

They flew to a tree and the made another nest. They now live in that house.

Participant 716

So they were left on the ground they fell on. They died and were put inside their coffins.

Participant 721

They fell and got injured and they died. The parents took them and threw them in the forest.

APPENDIX C

Coding

Data analysis: Coding per individual participant

Participant 302

I don't know. I don't want to talk anymore.	**Maladaptive functioning** • **resistance** • **reluctance**

Participant 382

The little birds fell on the ground and died.	**Maladaptive functioning** • **Helplessness** • **Negativity** • **Dependency** **Lack of problem solving skills** Awareness of death

Participant 390

They flew to another tree. Their father helped them.	**Navigation towards positive institutions** • **father** **Problem focused coping** **Sense of belonging** • **family cohesion – positive relationship with father** **Availability of safety and shelter**

Participant 432

The birds slept on the ground. Then they woke up and slept again. Then they woke up and left.	**Maladaptive functioning** • **Helplessness** **Problems with coping** • **Internalising problems** ○ **withdrawn** **Lack of problem solving strategies**

Participant 498

They were fast asleep in the nest and a big storm came and shaken the tree and they fall down. The mother and the father went back to the tree.	**Lack of problem solving strategies** **Sense of belonging** **Family cohesion - mother and father** • **positive relationships** • **trust** **Availability of shelter and safety**

Participant 504

I don't know.	**Maladaptive functioning** • **Resistance** • **Reluctance**

Participant 516

They were afraid. They did not know what tree to fly to. The wind prevented them from flying. They got on something that helped them to leave. They went to the police station and they put them on a fire truck. They went to a house and found the house destroyed. The wind stopped and they got help to build another nest and they became happy and then it rained. They went to the store and ran into tsotsi birds and took one of them. Somebody called police birds and they took the tsotzi birds to court. They lived happy. The Father bought a car and built a garage and they were all happy.	**Negative emotions** **Awareness of continuous adversity** **Exposure to crime and aggressive behaviour** **Awareness of continuum of risk and adaptation** **Awareness of emotional expression** **Positive future expectancies** **Navigation towards positive institutions** • **Police** **Problem focused coping** **Positive emotions (EI)** **Negotiation for protective resources** • **availability of meaningful resources (police)** **Sense of belonging** • **Family cohesion – father**

Participant 517

The little birds will also fly. They will fly to the tree.	**Problem focused coping**

Participant 534

The small birds followed their parents to another tree. Then they flew and got in a tree. They sat on the tree and felt cold. The wind took them to heaven. The birds belong to Jesus. He loves them. I saw them on a tree in the morning. One day I saw eggs on the tree. A friend of mine had gotten on top of a tree and showed them to me. When you leave a piece of bread outside the birds eat it. They also drink milk.	Awareness of death **Lack material resources** • **Clothing and shelter** **Problem focused coping** Positive emotional expression (EI) • **love** **Religious identification / spirituality** **Positive future expectancies** **Navigation towards positive institutions** • **parents** **Sense of belonging** • **Positive relationships (parents & friends)** • **Sense of safety** **Availability of material resources** • **Food**

Participant 560

They had been feeling cold. They flew. They went inside a nest. Mom and dad also went to a tree where there were other little birds. They had brought the food for the little birds to eat.	**Lack of material resources** • **clothing and shelter** **Problem focused coping** **Navigation towards positive institutions (parents)** **Sense of belonging** • **family cohesion (mother and father)** • **friends** **Availability of material resources** • **food**

Participant 602

The little birds were sitting on the ground, waiting to fly back to the tree. No, they could not do it because their wings were not yet well developed. They kept on trying over and over again but fell back on the ground again. They were eventually stolen by people, killed and eaten up. The mom and father to the little birds could not rescue them and take them back to the tree because they don't have hands like human beings to pick the little birds up. The little birds were crying for help, calling their parents by blowing whistles but it did not help. So after they were eaten up, the mother-bird and father-bird decided to change (turn) themselves into human beings and confronted the people that stole their little birds about the stealing. Those people confessed that they ate the little birds. The adult birds, who were now human beings, got angry, picked up beer bottles, broke them and stabbed those people and they died. After that they changed themselves back to being birds again. It ends there. There is nothing more I know or I can say.	**Maladaptive coping** • **helplessness** • **dependency** • **internalising problems** • **anxiety** **Negative emotions** **Awareness of continuous risk and adversity** **Awareness of death** **Exposure to crime and aggressive behaviour** **Absence of positive relationships** • **family** **Awareness of expression of emotions (EI)** **Resolve / agency**

Participant 604

Told their father that they want to fly to the tree and their father ask them to fly to the tree and they refuse. But at the end they flew to the tree where their father is and they move to their mothers nest. And it became dark again and a strong wind start again.	**Awareness of continuous adversity** **Problem focussed coping** **Resolve/agency** **Sense of belonging** • **positive relationships (parents)** **Navigation towards positive institutions (parents)** **Availability of material resources** • **shelter**

Participant 652

The father went to the other tree and built another house, while the mother came and took the children to the other tree where the father was. She put them in the new house.	**Sense of belonging** • **family cohesion – (parents)** • **positive relationships (parents)** **Problem focused coping** **Positive future expectancies** **Availability of material resources** • **shelter**

Participant 656

I don't know	**Maladaptive functioning** • **resistance** • **reluctance**

Participant 658

The mother came back and cooked for the children. She dished out the food and left while the father came back to look after the children. The children went to play and	**Navigation towards positive institutions** **Sense of belonging** **Family cohesion** **Positive relationships**

came back to the house and never went out again.	• **mother and father** **Availability of material resources** • **food** • **shelter and safety**

Participant 675

They're on top of the tree, the tree was shaken and the tree fell on the ground and the kids flew to another tree and the rain was still going on.	**Problem focussed coping** **Availability of material resources** • **shelter** **Awareness of continuous adversity**

Participant 712

They flew to a tree and they made another nest. They now live in that house.	**Problem focussed coping**

Participant 716

So they were left on the ground they fell on. They died and were put inside their coffins.	**Helplessness** **Dependency** **Absence of family cohesion** • **positive relationships** **Awareness of death**

Participant 721

They fell and got injured and they died. The parents took them and threw them in the forest.	**Parental abandonment** **Awareness of death and injury**

APPENDIX D

Themes of resilience and non-resilience

Themes of resilience and non-resilience

Theme 1: Internal Factors		Theme 2: External Factors	
Subtheme 1.1: Protective resources	**Subtheme 1.2:** Risk factors	**Subtheme 2.1:** Protective resources	**Subtheme 2.2:** Risk Factors
Problem focussed coping Awareness of emotional expression Positive future expectancies Positive emotions Positive emotional expression • Love Religious identification / spirituality Resolve / agency	Maladaptive functioning Resistance Reluctance Helplessness Negativity Dependency Lack of problem solving skills Problems with coping Internalizing problems • withdrawn • anxiety Negative emotions	Navigation towards positive institutions • father • police • both parents Sense of belonging Family cohesion Trust Positive relationships • parents • friends Sense of safety Availability of shelter and safety Availability material resources • food • shelter Negotiation of protective resources Availability of meaningful resources • police	Awareness of death Awareness of continuous adversity Awareness of continuous risk and adversity Awareness of death and injury Exposure to crime and aggressive behaviour Awareness of continuum of risk and adaptation Lack of material resources • clothing • shelter Absence of positive relationships • family Absence of family cohesion Parental abandonment

APPENDIX E

Categories related to themes of resilience and non-resilience

Düss: categories related to themes of resilience and non-resilience

	categories	Subtheme 1.1: Internal protective resources	categories	Subtheme 1.2: Internal risk factors

Theme 1: Internal Factors	**(a)**	Problem focussed coping	**(a)**	Maladaptive coping
				
				• Maladaptive functioning
				
				• Resistance
				
				• Reluctance
				
				• Helplessness
				
				• Negativity
				
				• Dependency
				
				• Internalizing problems
				   o withdrawn
				   o anxiety

	(b)	Emotional intelligence • Positive emotional expression • Positive emotions • Awareness of emotional expression	**(b)**	Lack of problem solving skills
	(c)	Religious identification / spirituality	**(c)**	Negative emotions
	(d)	Resolve / agency		
	(e)	Positive future expectancies		

	categories	Subtheme 2.1: External protective resources	categories	Subtheme 2.2: External risk factors
Theme 2: External Factors	(a)	Navigation towards positive institutions • father • police • both parents	(a)	Awareness of continuum of risk and adversity • Awareness of continuum of risk and adaptation • Awareness of continuous risk and adversity • Awareness of continuous adversity

	(b)	Sense of belonging
		• Family cohesion
		• Positive relationships
		  o parents
		  o friends
		• Trust
		• Sense of safety
			(b)	Awareness of death
				• Awareness of death

	(c)	Availability of material resources • food • shelter • safety	(c)	Exposure to crime and aggressive behaviour
	(d)	Negotiation of health resources • availability of protective resources o police	(d)	Lack of material resources • clothing • shelter
			(e)	Parental abandonment
			(f)	Absence of family cohesion Absence of positive relationships • family

APPENDIX F

Themes of resilience and non-resilience for each individual participant

Participant 302

Risk Factors	Protective Resources
External **Internal**	**External** **Internal**

Internal:
• Resistance
• Reluctance

Participant 382

Risk Factors	Protective Resources
External **Internal**	**External** **Internal**

External:
• Awareness of death

Internal:
• Helplessness
• Negativity
• Lack of problem
 solving skills
• Dependency

Participant 390

Risk Factors	Protective Resources
External **Internal**	**External** **Internal**
	• Family cohesion – father • Availability of safety and shelter • navigation towards positive institutions • sense of belonging • Problem focussed coping

Participant 432

Risk Factors	Protective Resources
External **Internal**	**External** **Internal**
• Helplessness • Lack of problem solving skills • Problems with coping • Internalizing behaviour - withdrawn	

Participant 498

Risk Factors		Protective Resources	
External	**Internal**	**External**	**Internal**
	• Lack of problem solving skills • Dependency	• Family cohesion – mother and father • Availability of shelter • Availability of safety • Positive relationships	• Trust • Sense of belonging

Participant 504

Risk Factors		Protective Resources	
External	**Internal**	**External**	**Internal**
	• Resistance • Reluctance		

Participant 516

Risk Factors	
External	**Internal**
• Awareness of continuous adversity • Awareness of continuous continuum of risk and adaptation	• Anxiety

Protective Resources	
External	**Internal**
• Navigation towards positive institutions ➢ Police • Negotiation for protective sources ➢ Availability of meaningful resources – police • Family cohesion - father • Resolve / agency	• Problem focussed coping • Positive emotions • Awareness of emotional xpression • Sense of belonging

Participant 517

Risk Factors	
External	**Internal**

Protective Resources	
External	**Internal**
• navigation towards positive institutions	• problem focussed coping

Participant 534

Risk Factors

External

- Lack of material resources
➢ Clothing and shelter
- Awareness of death

Internal

•Internalizing problems
- depression

Protective Resources

External

- Navigation towards positive institutions
➢ Positive relationships
➢ Family cohesion -
  mother and father
  belonging
➢ Friends
- Religious identification
➢ Awareness of life and death
- Availability of material resources
➢ food
- Availability of safety

Internal

- Positive future expectancies
- Problem focused coping
- Sense of

Participant 560

Risk Factors

External

- Lack of material resources
➢ clothing and shelter

Internal

Protective Resources

External

- Availability of material resources
➢ food
- Navigation towards positive institutions
➢ caring parents
➢ family cohesion
➢ friends
- Sense of belonging
➢ mother
➢ father
➢ friends

Internal

- problem focussed coping

Participant 602

Risk Factors	Protective Resources
External / **Internal**	**External** / **Internal**
• Awareness of continuous adversity • Absence of positive relationships – family • Awareness of death • Violent behaviour • Rule-braking behaviour	• Helplessness • Dependency • Internalizing problems - depression - anxiety • Negative emotions		• Resolve/Agency

Participant 604

Risk Factors	Protective Resources
External / **Internal**	**External** / **Internal**
• Awareness of continuous adversity		• Navigation towards positive institutions ➢ mother • Availability of material resources ➢ shelter	• Resolve/Agency

Participant 652

Risk Factors	Protective Resources
External **Internal**	**External** **Internal**

External (Protective Resources):
- Navigation towards positive institutions
- Positive relationships
- Sense of belonging
  ➢ family cohesion
    - mother and father
- Availability of material resources
  ➢ shelter

Internal (Protective Resources):
- Problem focussed coping

Participant 656

Risk Factors	Protective Resources
External **Internal**	**External** **Internal**

Internal (Risk Factors):
- Resistance
- Reluctance

Participant 658

Risk Factors		Protective Resources	
External	**Internal**	**External**	**Internal**
		• Availability of material resources ➢ food ➢ shelter and safety • Navigation towards positive institutions • family cohesion ➢ mother and father	• Positive emotions

Participant 675

Risk Factors		Protective Resources	
External	**Internal**	**External**	**Internal**
• Awareness of continuous adversity		• Availability of material resources ➢ shelter	• Problem focussed coping

Participant 712

Risk Factors	
External	**Internal**

Protective Resources	
External	**Internal**
	• Problem focussed coping

Participant 716

Risk Factors	
External	**Internal**
• Absence of family cohesion ➤ positive relationships	• Helplessness • Dependency

Protective Resources	
External	**Internal**

Participant 721

Risk Factors	
External	**Internal**
• Parental abandonment • Awareness of death and injury	

Protective Resources	
External	**Internal**

APPENDIX G

Child Behavior Checklist Scores

Participant:	721	Gender:	Female	Age:	5 years 8 months
Mother tongue:	Sepedi	School:	Pre-school	Living arrangements:	Mother, 1 adult and 2 child family members

	Internalizing					Externalizing	

T SCORE — CLINICAL NORMAL

Plot values:
- Anxious / Depressed: 59
- Withdrawn / Depressed: 54
- Somatic Complaints: 50
- Social Problems: 53
- Attention Problems: 52
- Rule-breaking Behaviour: 51
- Aggressive Behaviour: 52

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	5	1	0	2	3	1	4
T-scores	59	54	50	53	52	51	52
Percentile	>69	>50	≤ 50	>50	>50	>50	>50

Anxious / Depressed
2	14.	Cries
0	29.	Fears
0	30.	Fearschool
0	31.	FearDoBad
0	32.	Perfect
0	33.	Unloved
0	35.	Worthless
0	45.	Nervous
0	50.	Fearful
2	52.	Guilty
0	71.	SelfConsc
0	91.	Talk Suicide
1	112.	Worries

Withdrawn / Depressed
0	5.	EnjoysLittle
0	42.	PrefAlone
0	65.	Won'tTalk
0	69.	Secretive
0	75.	Shy
1	102.	LackEnerg
0	103.	Sad
0	111.	Withdrawn

Somatic Complaints
0	47.	Nightmares
0	49.	Constipate
0	51.	Dizzy
0	54.	Tired
0	56a.	Aches
0	56b.	Headaches
0	56c.	Nausea
0	56d.	EyeProb
0	56e.	SkinProb
0	56f.	Stomach
0	56g.	Vomit

Social Problems
0	11.	Dependant
0	12.	Lonely
0	25.	NotGetAlong
1	27.	Jealous
0	34.	OutToGet
0	36.	Accidents
0	38.	Teased
0	48.	NotLiked
0	62.	Clumsy
1	64.	PrefYoung
0	79.	SpeechProb

Attention Problems
0	1.	Acts young
1	4.	FailFinish
0	8.	Concentr
2	10.	SitStill
0	13.	Confused
0	17.	Daydream
0	41.	Impulsive
0	61.	PoorSchool
0	78.	Inatentive
0	80.	Stares

Rule-breaking Behaviour
0	2.	Alcohol
0	26.	NoGuilt
0	28.	BreakRules
0	39.	BadFriends
1	43.	LieCheat
0	63.	PrefOlder
0	67.	RunAway
0	72.	SetsFires
0	73.	SexProbl
0	81.	StealHome
0	82.	StealsOut
0	90.	Swears
0	96.	ThinksSex
0	99.	Tobacco
0	101.	Truant
0	105.	UseDrugs
0	106.	Vandalism

Aggressive Behaviour
0	3.	Argues
0	16.	Mean
0	19.	DemAtt
0	20.	DestroyOwn
0	21.	DestroyOth
0	22.	Disb.Home
0	23.	DisbSchool
0	37.	Fights
0	57.	Attacks
1	68.	Screams
0	86.	Stubborn
0	87.	MoodChang
0	88.	Sulks
0	89.	Suspicious
0	94.	Teases
1	95.	Temper
0	97.	Threaten
2	104.	Loud

Participant:	716	Gender:	Male	Age:	6 years 0 months
Mother tongue:	Sepedi	School:	Grade 1	Living arrangements:	Mother and 4 siblings

T SCORE chart (Clinical / Normal):

- Internalizing | Externalizing
- Anxious / Depressed: 66
- Withdrawn / Depressed: 58
- Somatic Complaints: 53
- Social Problems: 67
- Attention Problems: 64
- Rule-breaking Behaviour: 73
- Aggressive Behaviour: 68

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	8	2	1	8	9	10	15
T-scores	66	58	53	67	64	73	68
Percentile	>93	>69	>50	>93	>84	>98	>93

Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
0 14. Cries	1 5. EnjoysLittle	1 47. Nightmares	1 11. Dependant	1 1. Acts young	0 2. Alcohol	1 3. Argues
1 29. Fears	0 42. PrefAlone	0 49. Constipate	0 12. Lonely	1 4. FailFinish	0 26. NoGuilt	1 16. Mean
1 30. Fearschool	0 65. Won'tTalk	0 51. Dizzy	1 25. NotGetAlong	1 8. Concentr	1 28. BreakRules	1 19. DemAtt
1 31. FearDoBad	0 69. Secretive	0 54. Tired	1 27. Jealous	1 10. SitStill	1 39. BadFriends	1 20. DestroyOwn
0 32. Perfect	1 75. Shy	0 56a. Aches	1 34. OutToGet	0 13. Confused	1 43. LieCheat	1 21. DestroyOth
1 33. Unloved	0 102. LackEnerg	0 56b. Headaches	1 36. Accidents	1 17. Daydream	0 63. PrefOlder	1 22. Disb.Home
1 35. Worthless	0 103. Sad	0 56c. Nausea	1 38. Teased	1 41. Impulsive	0 67. RunAway	1 23. DisbSchool
1 45. Nervous	0 111. Withdrawn	0 56d. EyeProb	0 48. NotLiked	1 61. PoorSchool	1 72. SetsFires	1 37. Fights
0 50. Fearful		0 56e. SkinProb	1 62. Clumsy	1 78. Inatentive	0 73. SexProbl	1 57. Attacks
1 52. Guilty		0 56f. Stomach	1 64. PrefYoung	1 80. Stares	1 81. StealHome	1 68. Screams
1 71. SelfConsc		0 56g. Vomit	0 79. SpeechProb		1 82. StealsOut	1 86. Stubborn
0 91. Talk Suicide					1 90. Swears	1 87. MoodChang
0 112. Worries					0 96. ThinksSex	0 88. Sulks
					0 99. Tobacco	1 89. Suspicious
					1 101. Truant	1 94. Teases
					1 105. UseDrugs	0 95. Temper
					1 106. Vandalism	1 97. Threaten
						0 104. Loud

Participant:	712	Gender:	Female	Age:	6 years 0 months
Mother tongue:	Sepedi	School:	Grade 1	Living arrangements:	Mother and 3 adult family members

	Internalizing				Externalizing		

CLINICAL NORMAL

T SCORE: 100 95 90 85 80 75 70 65 60 55 ≤50

Plotted T-scores: Anxious/Depressed = 57, Withdrawn/Depressed = 50, Somatic Complaints = 50, Social Problems = 60, Attention Problems = 51, Rule-breaking Behaviour = 53, Aggressive Behaviour = 59

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	4	0	0	5	3	2	8
T-scores	57	50	50	60	51	53	59
Percentile	>69	≤ 50	≤ 50	84	>50	>50	>69

Anxious / Depressed		Withdrawn / Depressed		Somatic Complaints		Social Problems		Attention Problems		Rule-breaking Behaviour		Aggressive Behaviour	
0	14. Cries	0	5. EnjoysLittle	0	47. Nightmares	0	11. Dependant	0	1. Acts young	0	2. Alcohol	2	3. Argues
2	29. Fears	0	42. PrefAlone	0	49. Constipate	1	12. Lonely	1	4. FailFinish	0	26. NoGuilt	0	16. Mean
0	30. Fearschool	0	65. Won'tTalk	0	51. Dizzy	0	25. NotGetAlong	1	8. Concentr	0	28. BreakRules	1	19. DemAtt
1	31. FearDoBad	0	69. Secretive	0	54. Tired	2	27. Jealous	1	10. SitStill	0	39. BadFriends	0	20. DestroyOwn
1	32. Perfect	0	75. Shy	0	56a. Aches	1	34. OutToGet	0	13. Confused	1	43. LieCheat	0	21. DestroyOth
0	33. Unloved	0	102. LackEnerg	0	56b. Headaches	0	36. Accidents	0	17. Daydream	1	63. PrefOlder	0	22. Disb.Home
0	35. Worthless	0	103. Sad	0	56c. Nausea	0	38. Teased	0	41. Impulsive	0	67. RunAway	0	23. DisbSchool
0	45. Nervous	0	111. Withdrawn	0	56d. EyeProb	0	48. NotLiked	0	61. PoorSchool	0	72. SetsFires	2	37. Fights
0	50. Fearful			0	56e. SkinProb	0	62. Clumsy	0	78. Inatentive	0	73. SexProbl	0	57. Attacks
0	52. Guilty			0	56f. Stomach	1	64. PrefYoung	0	80. Stares	0	81. StealHome	1	68. Screams
0	71. SelfConsc			0	56g. Vomit	0	79. SpeechProb			0	82. StealsOut	0	86. Stubborn
0	91. Talk Suicide									0	90. Swears	0	87. MoodChang
0	112. Worries									0	96. ThinksSex	0	88. Sulks
										0	99. Tobacco	0	89. Suspicious
										0	101. Truant	0	94. Teases
										0	105. UseDrugs	0	95. Temper
										0	106. Vandalism	0	97. Threaten
												2	104. Loud

Participant:	675	Gender:	Female	Age:	6 years 0 months
Mother tongue:	Setswana	School:	Grade 1	Living arrangements:	Mother, 1 adult and 2 child family members

Internalizing | **Externalizing**

CLINICAL NORMAL

T SCORE

Plotted T-scores: Anxious/Depressed 57, Withdrawn/Depressed 58, Somatic Complaints 61, Social Problems 53, Attention Problems 52, Rule-breaking Behaviour 50, Aggressive Behaviour 50

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	4	2	3	2	3	0	1
T-scores	57	58	61	53	52	50	50
Percentile	>69	>69	>84	>50	>50	≤ 50	≤ 50

Anxious / Depressed		Withdrawn / Depressed		Somatic Complaints		Social Problems		Attention Problems		Rule-breaking Behaviour		Aggressive Behaviour	
0	14. Cries	0	5. EnjoysLittle	0	47. Nightmares	0	11. Dependant	1	1. Acts young	0	2. Alcohol	0	3. Argues
1	29. Fears	0	42. PrefAlone	1	49. Constipate	1	12. Lonely	0	4. FailFinish	0	26. NoGuilt	0	16. Mean
0	30. Fearschool	0	65. Won'tTalk	0	51. Dizzy	0	25. NotGetAlong	0	8. Concentr	0	28. BreakRules	0	19. DemAtt
1	31. FearDoBad	0	69. Secretive	0	54. Tired	0	27. Jealous	1	10. SitStill	0	39. BadFriends	0	20. DestroyOwn
2	32. Perfect	1	75. Shy	0	56a. Aches	0	34. OutToGet	0	13. Confused	0	43. LieCheat	0	21. DestroyOth
0	33. Unloved	1	102. LackEnerg	1	56b. Headaches	0	36. Accidents	0	17. Daydream	0	63. PrefOlder	0	22. Disb.Home
0	35. Worthless	0	103. Sad	0	56c. Nausea	0	38. Teased	1	41. Impulsive	0	67. RunAway	0	23. DisbSchool
0	45. Nervous	0	111. Withdrawn	0	56d. EyeProb	0	48. NotLiked	0	61. PoorSchool	0	72. SetsFires	0	37. Fights
0	50. Fearful			0	56e. SkinProb	0	62. Clumsy	0	78. Inatentive	0	73. SexProbl	0	57. Attacks
0	52. Guilty			1	56f. Stomach	1	64. PrefYoung	0	80. Stares	0	81. StealHome	0	68. Screams
0	71. SelfConsc			0	56g. Vomit	0	79. SpeechProb			0	82. StealsOut	0	86. Stubborn
0	91. Talk Suicide									0	90. Swears	0	87. MoodChang
0	112. Worries									0	96. ThinksSex	0	88. Sulks
										0	99. Tobacco	0	89. Suspicious
										0	101. Truant	0	94. Teases
										0	105. UseDrugs	1	95. Temper
										0	106. Vandalism	0	97. Threaten
												0	104. Loud

Participant:	658	Gender:	Male	Age:	6 years 0 months
Mother tongue:	IsiZulu	School:	Grade R	Living arrangements:	Mother and 1 sibling

	Internalizing					Externalizing	

T SCORE — CLINICAL NORMAL

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	6	1	1	2	3	2	5
T-scores	62	54	53	53	52	53	53
Percentile	>84	>50	>50	>50	>50	>50	>50

Anxious / Depressed			Withdrawn / Depressed			Somatic Complaints			Social Problems			Attention Problems			Rule-breaking Behaviour			Aggressive Behaviour		
1	14.	Cries	0	5.	EnjoysLittle	0	47.	Nightmares	0	11.	Dependant	0	1.	Acts young	0	2.	Alcohol	1	3.	Argues
1	29.	Fears	0	42.	PrefAlone	0	49.	Constipate	0	12.	Lonely	0	4.	FailFinish	0	26.	NoGuilt	0	16.	Mean
0	30.	Fearschool	0	65.	Won'tTalk	0	51.	Dizzy	0	25.	NotGetAlong	0	8.	Concentr	0	28.	BreakRules	0	19.	DemAtt
1	31.	FearDoBad	0	69.	Secretive	0	54.	Tired	0	27.	Jealous	1	10.	SitStill	2	39.	BadFriends	0	20.	DestroyOwn
2	32.	Perfect	1	75.	Shy	0	56a.	Aches	0	34.	OutToGet	0	13.	Confused	0	43.	LieCheat	0	21.	DestroyOth
0	33.	Unloved	0	102.	LackEnerg	0	56b.	Headaches	0	36.	Accidents	0	17.	Daydream	0	63.	PrefOlder	1	22.	Disb.Home
0	35.	Worthless	0	103.	Sad	0	56c.	Nausea	1	38.	Teased	1	41.	Impulsive	0	67.	RunAway	0	23.	DisbSchool
1	45.	Nervous	0	111.	Withdrawn	1	56d.	EyeProb	0	48.	NotLiked	0	61.	PoorSchool	0	72.	SetsFires	0	37.	Fights
0	50.	Fearful				0	56e.	SkinProb	0	62.	Clumsy	0	78.	Inatentive	0	73.	SexProbl	0	57.	Attacks
0	52.	Guilty				0	56f.	Stomach	1	64.	PrefYoung	1	80.	Stares	0	81.	StealHome	0	68.	Screams
0	71.	SelfConsc				0	56g.	Vomit	0	79.	SpeechProb				0	82.	StealsOut	1	86.	Stubborn
0	91.	Talk Suicide													0	90.	Swears	0	87.	MoodChang
0	112.	Worries													0	96.	ThinksSex	0	88.	Sulks
															0	99.	Tobacco	0	89.	Suspicious
															0	101.	Truant	1	94.	Teases
															0	105.	UseDrugs	1	95.	Temper
															0	106.	Vandalism	0	97.	Threaten
																		0	104.	Loud

Participant:	656	Gender:	Female	Age:	6 years 0 months
Mother tongue:	IsiZulu	School:	Grade 1	Living arrangements:	Mother, 5 adult and 2 child family memberw

	Internalizing					Externalizing	

T SCORE plot (CLINICAL / NORMAL):
- Anxious / Depressed: 62
- Withdrawn / Depressed: 50
- Somatic Complaints: 50
- Social Problems: 56
- Attention Problems: 59
- Rule-breaking Behaviour: 73
- Aggressive Behaviour: 62

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	6	0	0	3	7	10	10
T-scores	62	50	50	56	59	73	62
Percentile	>84	≤50	≤50	>69	>69	>98	>84

Anxious / Depressed			Withdrawn / Depressed			Somatic Complaints			Social Problems			Attention Problems			Rule-breaking Behaviour			Aggressive Behaviour		
0	14.	Cries	0	5.	EnjoysLittle	0	47.	Nightmares	0	11.	Dependant	0	1.	Acts young	0	2.	Alcohol	2	3.	Argues
2	29.	Fears	0	42.	PrefAlone	0	49.	Constipate	0	12.	Lonely	2	4.	FailFinish	2	26.	NoGuilt	0	16.	Mean
0	30.	Fearschool	0	65.	Won'tTalk	0	51.	Dizzy	0	25.	NotGetAlong	1	8.	Concentr	1	28.	BreakRules	0	19.	DemAtt
2	31.	FearDoBad	0	69.	Secretive	0	54.	Tired	0	27.	Jealous	2	10.	SitStill	0	39.	BadFriends	2	20.	DestroyOwn
1	32.	Perfect	0	75.	Shy	0	56a.	Aches	0	34.	OutToGet	0	13.	Confused	1	43.	LieCheat	0	21.	DestroyOth
0	33.	Unloved	0	102.	LackEnerg	0	56b.	Headaches	0	36.	Accidents	0	17.	Daydream	0	63.	PrefOlder	1	22.	Disb.Home
0	35.	Worthless	0	103.	Sad	0	56c.	Nausea	0	38.	Teased	0	41.	Impulsive	0	67.	RunAway	0	23.	DisbSchool
0	45.	Nervous	0	111.	Withdrawn	0	56d.	EyeProb	0	48.	NotLiked	0	61.	PoorSchool	0	72.	SetsFires	0	37.	Fights
1	50.	Fearful				0	56e.	SkinProb	2	62.	Clumsy	2	78.	Inatentive	0	73.	SexProbl	0	57.	Attacks
0	52.	Guilty				0	56f.	Stomach	1	64.	PrefYoung	0	80.	Stares	2	81.	StealHome	1	68.	Screams
0	71.	SelfConsc				0	56g.	Vomit	0	79.	SpeechProb				2	82.	StealsOut	0	86.	Stubborn
0	91.	Talk Suicide													0	90.	Swears	2	87.	MoodChang
0	112.	Worries													0	96.	ThinksSex	0	88.	Sulks
															0	99.	Tobacco	0	89.	Suspicious
															0	101.	Truant	0	94.	Teases
															0	105.	UseDrugs	0	95.	Temper
															2	106.	Vandalism	0	97.	Threaten
																		2	104.	Loud

Participant:	652	Gender:	Male	Age:	6 years 0 months
Mother tongue:	IsiZulu	School:	Grade 1	Living arrangements:	Mother, partner and 1 sibling

	Internalizing				Externalizing	

T SCORE plot (CLINICAL / NORMAL): Anxious/Depressed = 59, Withdrawn/Depressed = 70, Somatic Complaints = 61, Social Problems = 53, Attention Problems = 59, Rule-breaking Behaviour = 57, Aggressive Behaviour = 57

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	5	6	3	2	7	3	7
T-scores	59	70	61	53	59	57	57
Percentile	>69	98	>84	>50	>69	>69	>69

	Anxious / Depressed			Withdrawn / Depressed			Somatic Complaints			Social Problems			Attention Problems			Rule-breaking Behaviour			Aggressive Behaviour	
1	14.	Cries	1	5.	EnjoysLittle	1	47.	Nightmares	0	11.	Dependant	1	1.	Acts young	0	2.	Alcohol	1	3.	Argues
0	29.	Fears	0	42.	PrefAlone	0	49.	Constipate	0	12.	Lonely	1	4.	FailFinish	0	26.	NoGuilt	1	16.	Mean
1	30.	Fearschool	1	65.	Won'tTalk	0	51.	Dizzy	0	25.	NotGetAlong	1	8.	Concentr	1	28.	BreakRules	1	19.	DemAtt
0	31.	FearDoBad	1	69.	Secretive	1	54.	Tired	0	27.	Jealous	1	10.	SitStill	0	39.	BadFriends	1	20.	DestroyOwn
0	32.	Perfect	2	75.	Shy	0	56a.	Aches	0	34.	OutToGet	0	13.	Confused	0	43.	LieCheat	0	21.	DestroyOth
0	33.	Unloved	0	102.	LackEnerg	0	56b.	Headaches	0	36.	Accidents	1	17.	Daydream	0	63.	PrefOlder	1	22.	Disb.Home
1	35.	Worthless	0	103.	Sad	0	56c.	Nausea	0	38.	Teased	0	41.	Impulsive	1	67.	RunAway	1	23.	DisbSchool
0	45.	Nervous	1	111.	Withdrawn	1	56d.	EyeProb	0	48.	NotLiked	1	61.	PoorSchool	0	72.	SetsFires	0	37.	Fights
1	50.	Fearful				0	56e.	SkinProb	1	62.	Clumsy	1	78.	Inatentive	0	73.	SexProbl	0	57.	Attacks
0	52.	Guilty				0	56f.	Stomach	1	64.	PrefYoung	0	80.	Stares	0	81.	StealHome	0	68.	Screams
0	71.	SelfConsc				0	56g.	Vomit	0	79.	SpeechProb				1	82.	StealsOut	0	86.	Stubborn
0	91.	Talk Suicide													0	90.	Swears	0	87.	MoodChang
1	112.	Worries													0	96.	ThinksSex	0	88.	Sulks
															0	99.	Tobacco	1	89.	Suspicious
															0	101.	Truant	1	94.	Teases
															0	105.	UseDrugs	0	95.	Temper
															0	106.	Vandalism	0	97.	Threaten
																		0	104.	Loud

| Participant: | 604 | Gender: | Female | Age: | 6 years 0 months |
| Mother tongue: | Sepedi | School: | Grade 1 | Living arrangements: | Mother, Partner, 1 adult and 1 child family members |

	Internalizing				Externalizing	

C L I N I C A L   N O R M A L

T S C O R E

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	0	2	0	3	1	0	0
T-scores	50	58	50	56	50	50	50
Percentile	≤ 50	69	≤ 50	>69	≤ 50	≤ 50	≤ 50

Plotted values: Anxious/Depressed 50, Withdrawn/Depressed 58, Somatic Complaints 50, Social Problems 56, Attention Problems 50, Rule-breaking Behaviour 50, Aggressive Behaviour 50

Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
0 14. Cries	0 5. EnjoysLittle	0 47. Nightmares	0 11. Dependant	0 1. Acts young	0 2. Alcohol	0 3. Argues
0 29. Fears	0 42. PrefAlone	0 49. Constipate	0 12. Lonely	0 4. FailFinish	0 26. NoGuilt	0 16. Mean
0 30. Fearschool	0 65. Won'tTalk	0 51. Dizzy	0 25. NotGetAlong	0 8. Concentr	0 28. BreakRules	0 19. DemAtt
0 31. FearDoBad	2 69. Secretive	0 54. Tired	0 27. Jealous	1 10. SitStill	0 39. BadFriends	0 20. DestroyOwn
0 32. Perfect	0 75. Shy	0 56a. Aches	1 34. OutToGet	0 13. Confused	0 43. LieCheat	0 21. DestroyOth
0 33. Unloved	0 102. LackEnerg	0 56b. Headaches	0 36. Accidents	0 17. Daydream	0 63. PrefOlder	0 22. Disb.Home
0 35. Worthless	0 103. Sad	0 56c. Nausea	0 38. Teased	0 41. Impulsive	0 67. RunAway	0 23. DisbSchool
0 45. Nervous	0 111. Withdrawn	0 56d. EyeProb	0 48. NotLiked	0 61. PoorSchool	0 72. SetsFires	0 37. Fights
0 50. Fearful		0 56e. SkinProb	0 62. Clumsy	0 78. Inatentive	0 73. SexProbl	0 57. Attacks
0 52. Guilty		0 56f. Stomach	2 64. PrefYoung	0 80. Stares	0 81. StealHome	0 68. Screams
0 71. SelfConsc		0 56g. Vomit	0 79. SpeechProb		0 82. StealsOut	0 86. Stubborn
0 91. Talk Suicide					0 90. Swears	0 87. MoodChang
0 112. Worries					0 96. ThinksSex	0 88. Sulks
					0 99. Tobacco	0 89. Suspicious
					0 101. Truant	0 94. Teases
					0 105. UseDrugs	0 95. Temper
					0 106. Vandalism	0 97. Threaten
						0 104. Loud

Participant:	602	Gender:	Female	Age:	6 years 0 months
Mother tongue:	Sepedi	School:	Pre-school	Living arrangements:	Mother, 3 adult and 3 child family members

	Internalizing					Externalizing	

T SCORE (CLINICAL / NORMAL)

Plotted T-scores: 57, 58, 64, 73, 55, 79, 75

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	4	2	4	11	5	15	20
T-scores	57	58	64	73	55	79	75
Percentile	>69	>69	>84	>98	69	>98	>98

Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
2 14. Cries	0 5. EnjoysLittle	2 47. Nightmares	2 11. Dependant	2 1. Acts young	0 2. Alcohol	2 3. Argues
0 29. Fears	0 42. PrefAlone	0 49. Constipate	0 12. Lonely	1 4. FailFinish	2 26. NoGuilt	1 16. Mean
0 30. Fearschool	1 65. Won'tTalk	0 51. Dizzy	2 25. NotGetAlong	0 8. Concentr	1 28. BreakRules	2 19. DemAtt
0 31. FearDoBad	0 69. Secretive	0 54. Tired	1 27. Jealous	0 10. SitStill	2 39. BadFriends	2 20. DestroyOwn
0 32. Perfect	1 75. Shy	0 56a. Aches	2 34. OutToGet	0 13. Confused	0 43. LieCheat	0 21. DestroyOth
0 33. Unloved	0 102. LackEnerg	1 56b. Headaches	2 36. Accidents	0 17. Daydream	2 63. PrefOlder	0 22. Disb.Home
0 35. Worthless	0 103. Sad	0 56c. Nausea	1 38. Teased	0 41. Impulsive	2 67. RunAway	0 23. DisbSchool
0 45. Nervous	0 111. Withdrawn	0 56d. EyeProb	0 48. NotLiked	0 61. PoorSchool	0 72. SetsFires	2 37. Fights
1 50. Fearful		0 56e. SkinProb	0 62. Clumsy	0 78. Inatentive	1 73. SexProbl	2 57. Attacks
0 52. Guilty		1 56f. Stomach	1 64. PrefYoung	2 80. Stares	0 81. StealHome	2 68. Screams
1 71. SelfConsc		0 56g. Vomit	0 79. SpeechProb		2 82. StealsOut	1 86. Stubborn
0 91. Talk Suicide					1 90. Swears	1 87. MoodChang
0 112. Worries					0 96. ThinksSex	0 88. Sulks
					0 99. Tobacco	0 89. Suspicious
					0 101. Truant	1 94. Teases
					0 105. UseDrugs	2 95. Temper
					2 106. Vandalism	0 97. Threaten
						2 104. Loud

Participant:	560	Gender:	Male	Age:	6 years 0 months
Mother tongue:	Sepedi	School:	Grade 1	Living arrangements:	Mother, partner, 1 adult and 1 child family members

	Internalizing					Externalizing	

T S C O R E — C L I N I C A L   N O R M A L

T SCORE: 100, 95, 90, 85, 80, 75, 70, 65, 60, 55, ≤50

Plotted values: 51, 50, 53, 53, 52, 50, 50

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	2	0	1	2	3	0	2
T-scores	51	50	53	53	52	50	50
Percentile	> 50	≤ 50	> 50	> 50	> 50	≤ 50	≤ 50

Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
0 14. Cries	0 5. EnjoysLittle	1 47. Nightmares	0 11. Dependant	1 1. Acts young	0 2. Alcohol	1 3. Argues
0 29. Fears	0 42. PrefAlone	0 49. Constipate	1 12. Lonely	0 4. FailFinish	0 26. NoGuilt	0 16. Mean
0 30. Fearschool	0 65. Won'tTalk	0 51. Dizzy	0 25. NotGetAlong	0 8. Concentr	0 28. BreakRules	0 19. DemAtt
1 31. FearDoBad	0 69. Secretive	0 54. Tired	0 27. Jealous	1 10. SitStill	0 39. BadFriends	0 20. DestroyOwn
1 32. Perfect	0 75. Shy	0 56a. Aches	0 34. OutToGet	0 13. Confused	0 43. LieCheat	0 21. DestroyOth
0 33. Unloved	0 102. LackEnerg	0 56b. Headaches	0 36. Accidents	0 17. Daydream	0 63. PrefOlder	1 22. Disb.Home
0 35. Worthless	0 103. Sad	0 56c. Nausea	0 38. Teased	0 41. Impulsive	0 67. RunAway	0 23. DisbSchool
0 45. Nervous	0 111. Withdrawn	0 56d. EyeProb	0 48. NotLiked	0 61. PoorSchool	0 72. SetsFires	0 37. Fights
0 50. Fearful		0 56e. SkinProb	0 62. Clumsy	1 78. Inatentive	0 73. SexProbl	0 57. Attacks
0 52. Guilty		0 56f. Stomach	1 64. PrefYoung	0 80. Stares	0 81. StealHome	0 68. Screams
0 71. SelfConsc		0 56g. Vomit	0 79. SpeechProb		0 82. StealsOut	0 86. Stubborn
0 91. Talk Suicide					0 90. Swears	0 87. MoodChang
0 112. Worries					0 96. ThinksSex	0 88. Sulks
					0 99. Tobacco	0 89. Suspicious
					0 101. Truant	0 94. Teases
					0 105. UseDrugs	0 95. Temper
					0 106. Vandalism	0 97. Threaten
						0 104. Loud

Participant:	534	Gender:	Female	Age:	6 years 10 months
Mother tongue:	Sepedi	School:	Grade 1	Living arrangements:	Mother, 1 sibling, 3 adult and 2 child family members

Internalizing | **Externalizing**

T SCORE (100, 95, 90, 85, 80, 75, 70, 65, 60, 55, ≤50)

CLINICAL / NORMAL

Plotted T-scores: 51, 54, 53, 56, 50, 53, 50

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	2	1	1	3	1	2	1
T-scores	51	54	53	56	50	53	50
Percentile	> 50	> 50	> 50	> 69	≤ 50	> 50	≤ 50

Anxious / Depressed		Withdrawn / Depressed		Somatic Complaints		Social Problems		Attention Problems		Rule-breaking Behaviour		Aggressive Behaviour	
0	14. Cries	0	5. EnjoysLittle	1	47. Nightmares	1	11. Dependant	1	1. Acts young	0	2. Alcohol	0	3. Argues
1	29. Fears	1	42. PrefAlone	0	49. Constipate	0	12. Lonely	0	4. FailFinish	0	26. NoGuilt	0	16. Mean
0	30. Fearschool	0	65. Won'tTalk	0	51. Dizzy	0	25. NotGetAlong	0	8. Concentr	0	28. BreakRules	0	19. DemAtt
0	31. FearDoBad	0	69. Secretive	0	54. Tired	1	27. Jealous	0	10. SitStill	0	39. BadFriends	1	20. DestroyOwn
0	32. Perfect	0	75. Shy	0	56a. Aches	0	34. OutToGet	0	13. Confused	1	43. LieCheat	0	21. DestroyOth
0	33. Unloved	0	102. LackEnerg	0	56b. Headaches	0	36. Accidents	0	17. Daydream	1	63. PrefOlder	0	22. Disb.Home
0	35. Worthless	0	103. Sad	0	56c. Nausea	0	38. Teased	0	41. Impulsive	0	67. RunAway	0	23. DisbSchool
0	45. Nervous	0	111. Withdrawn	0	56d. EyeProb	0	48. NotLiked	0	61. PoorSchool	0	72. SetsFires	0	37. Fights
0	50. Fearful			0	56e. SkinProb	0	62. Clumsy	0	78. Inatentive	0	73. SexProbl	0	57. Attacks
0	52. Guilty			0	56f. Stomach	1	64. PrefYoung	0	80. Stares	0	81. StealHome	0	68. Screams
1	71. SelfConsc			0	56g. Vomit	0	79. SpeechProb			0	82. StealsOut	0	86. Stubborn
0	91. Talk Suicide									0	90. Swears	0	87. MoodChang
0	112. Worries									0	96. ThinksSex	0	88. Sulks
										0	99. Tobacco	0	89. Suspicious
										0	101. Truant	0	94. Teases
										0	105. UseDrugs	0	95. Temper
										0	106. Vandalism	0	97. Threaten
												0	104. Loud

Participant:	517	Gender:	Male	Age:	5 years 8 months
Mother tongue:	IsiZulu and Sepedi	School:	Pre-school	Living arrangements:	Mother, partner, and 1 child family member

	Internalizing					Externalizing	
	Anxious / Depressed	**Withdrawn / Depressed**	**Somatic Complaints**	**Social Problems**	**Attention Problems**	**Rule-breaking Behaviour**	**Aggressive Behaviour**
Total score	5	0	2	3	3	10	9
T-scores	59	50	57	56	52	73	61
Percentile	> 69	≤50	> 69	> 69	> 50	> 98	> 84

CLINICAL NORMAL

Anxious / Depressed		Withdrawn / Depressed		Somatic Complaints		Social Problems		Attention Problems		Rule-breaking Behaviour		Aggressive Behaviour	
1	14. Cries	0	5. EnjoysLittle	0	47. Nightmares	0	11. Dependant	0	1. Acts young	1	2. Alcohol	1	3. Argues
2	29. Fears	0	42. PrefAlone	0	49. Constipate	0	12. Lonely	1	4. FailFinish	0	26. NoGuilt	0	16. Mean
0	30. Fearschool	0	65. Won'tTalk	0	51. Dizzy	0	25. NotGetAlong	1	8. Concentr	1	28. BreakRules	1	19. DemAtt
0	31. FearDoBad	0	69. Secretive	0	54. Tired	0	27. Jealous	1	10. SitStill	1	39. BadFriends	2	20. DestroyOwn
0	32. Perfect	0	75. Shy	0	56a. Aches	1	34. OutToGet	0	13. Confused	1	43. LieCheat	0	21. DestroyOth
1	33. Unloved	0	102. LackEnerg	0	56b. Headaches	0	36. Accidents	0	17. Daydream	0	63. PrefOlder	1	22. Disb.Home
0	35. Worthless	0	103. Sad	0	56c. Nausea	2	38. Teased	0	41. Impulsive	2	67. RunAway	0	23. DisbSchool
0	45. Nervous	0	111. Withdrawn	1	56d. EyeProb	0	48. NotLiked	0	61. PoorSchool	2	72. SetsFires	0	37. Fights
1	50. Fearful			0	56e. SkinProb	0	62. Clumsy	0	78. Inatentive	0	73. SexProbl	0	57. Attacks
0	52. Guilty			1	56f. Stomach	0	64. PrefYoung	0	80. Stares	0	81. StealHome	1	68. Screams
0	71. SelfConsc			0	56g. Vomit	0	79. SpeechProb			0	82. StealsOut	0	86. Stubborn
0	91. Talk Suicide									1	90. Swears	1	87. MoodChang
0	112. Worries									0	96. ThinksSex	0	88. Sulks
										0	99. Tobacco	0	89. Suspicious
										0	101. Truant	1	94. Teases
										0	105. UseDrugs	0	95. Temper
										0	106. Vandalism	0	97. Threaten
												1	104. Loud

Participant:	516	Gender:	Male	Age:	6 years 0 months
Mother tongue:	Sepedi, Setswana, Tsonga	School:	Grade 1	Living arrangements:	Mother, father, 1 sibling, 6 adult and 4 child family members

	Internalizing				Externalizing		

T SCORE (≤50 – 100) — CLINICAL / NORMAL

Plotted T-scores: 66, 58, 64, 53, 57, 53, 67

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	8	2	4	2	6	2	14
T-scores	66	58	64	53	57	53	67
Percentile	> 93	> 69	> 84	> 50	> 69	> 50	> 93

Anxious / Depressed		Withdrawn / Depressed		Somatic Complaints		Social Problems		Attention Problems		Rule-breaking Behaviour		Aggressive Behaviour	
0	14. Cries	0	5. EnjoysLittle	0	47. Nightmares	0	11. Dependant	0	1. Acts young	0	2. Alcohol	2	3. Argues
2	29. Fears	0	42. PrefAlone	2	49. Constipate	0	12. Lonely	0	4. FailFinish	0	26. NoGuilt	0	16. Mean
0	30. Fearschool	0	65. Won'tTalk	0	51. Dizzy	0	25. NotGetAlong	0	8. Concentr	0	28. BreakRules	2	19. DemAtt
0	31. FearDoBad	0	69. Secretive	2	54. Tired	0	27. Jealous	0	10. SitStill	0	39. BadFriends	2	20. DestroyOwn
2	32. Perfect	2	75. Shy	0	56a. Aches	0	34. OutToGet	0	13. Confused	1	43. LieCheat	0	21. DestroyOth
0	33. Unloved	0	102. LackEnerg	0	56b. Headaches	0	36. Accidents	0	17. Daydream	0	63. PrefOlder	0	22. Disb.Home
0	35. Worthless	0	103. Sad	0	56c. Nausea	0	38. Teased	2	41. Impulsive	0	67. RunAway	0	23. DisbSchool
0	45. Nervous	0	111. Withdrawn	0	56d. EyeProb	0	48. NotLiked	0	61. PoorSchool	1	72. SetsFires	0	37. Fights
0	50. Fearful			0	56e. SkinProb	0	62. Clumsy	2	78. Inatentive	0	73. SexProbl	0	57. Attacks
0	52. Guilty			0	56f. Stomach	2	64. PrefYoung	2	80. Stares	0	81. StealHome	2	68. Screams
2	71. SelfConsc			0	56g. Vomit	0	79. SpeechProb			0	82. StealsOut	2	86. Stubborn
0	91. Talk Suicide									0	90. Swears	2	87. MoodChang
2	112. Worries									0	96. ThinksSex	2	88. Sulks
										0	99. Tobacco	0	89. Suspicious
										0	101. Truant	0	94. Teases
										0	105. UseDrugs	0	95. Temper
										0	106. Vandalism	0	97. Threaten
												2	104. Loud

Participant:	504	Gender:	Female	Age:	6 years 0 months
Mother tongue:	Tsonga	School:	Grade 1	Living arrangements:	Mother, partner, 1 sibling, 5 adult and 5 child family members

	Internalizing					Externalizing	

T S C O R E

CLINICAL NORMAL

100
95
90
85
80
75
70
65
60
55
≤50

67 • (Anxious/Depressed)
57 • (Withdrawn/Depressed)
53 • (Somatic Complaints)
65 • (Social Problems)
57 • (Attention Problems)
67 • (Rule-breaking Behaviour)
61 • (Aggressive Behaviour)

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	9	3	1	7	6	6	9
T-scores	67	57	53	65	57	67	61
Percentile	>93	>69	>50	93	>69	>93	>84

Anxious / Depressed		Withdrawn / Depressed		Somatic Complaints		Social Problems		Attention Problems		Rule-breaking Behaviour		Aggressive Behaviour	
2	14. Cries	0	5. EnjoysLittle	1	47. Nightmares	2	11. Dependant	0	1. Acts young	0	2. Alcohol	2	3. Argues
2	29. Fears	1	42. PrefAlone	0	49. Constipate	0	12. Lonely	2	4. FailFinish	2	26. NoGuilt	0	16. Mean
0	30. Fearschool	0	65. Won'tTalk	0	51. Dizzy	0	25. NotGetAlong	2	8. Concentr	0	28. BreakRules	2	19. DemAtt
0	31. FearDoBad	0	69. Secretive	0	54. Tired	2	27. Jealous	0	10. SitStill	0	39. BadFriends	0	20. DestroyOwn
2	32. Perfect	2	75. Shy	0	56a. Aches	0	34. OutToGet	0	13. Confused	2	43. LieCheat	0	21. DestroyOth
1	33. Unloved	0	102. LackEnerg	0	56b. Headaches	1	36. Accidents	0	17. Daydream	0	63. PrefOlder	0	22. Disb.Home
2	35. Worthless	0	103. Sad	0	56c. Nausea	0	38. Teased	2	41. Impulsive	0	67. RunAway	0	23. DisbSchool
0	45. Nervous	0	111. Withdrawn	0	56d. EyeProb	0	48. NotLiked	0	61. PoorSchool	0	72. SetsFires	0	37. Fights
0	50. Fearful			0	56e. SkinProb	0	62. Clumsy	0	78. Inatentive	0	73. SexProbl	0	57. Attacks
0	52. Guilty			0	56f. Stomach	2	64. PrefYoung	0	80. Stares	2	81. StealHome	0	68. Screams
0	71. SelfConsc			0	56g. Vomit	0	79. SpeechProb			0	82. StealsOut	0	86. Stubborn
0	91. Talk Suicide									0	90. Swears	2	87. MoodChang
0	112. Worries									0	96. ThinksSex	2	88. Sulks
										0	99. Tobacco	0	89. Suspicious
										0	101. Truant	0	94. Teases
										0	105. UseDrugs	1	95. Temper
										0	106. Vandalism	0	97. Threaten
												0	104. Loud

Participant:	498	Gender:	Female	Age:	6 years 0 months
Mother tongue:	Sepedi	School:	Grade R	Living arrangements:	Mother and 7 adult family members

	Internalizing				Externalizing	
	Anxious / Depressed	**Withdrawn / Depressed**	**Somatic Complaints**	**Social Problems**	**Attention Problems**	**Rule-breaking Behaviour**	**Aggressive Behaviour**
Total score	2	5	0	0	2	0	0
T-scores	51	68	50	50	51	50	50
Percentile	>50	>93	≤ 50	≤ 50	>50	≤ 50	≤ 50

T SCORE chart values: Anxious/Depressed = 51, Withdrawn/Depressed = 68, Somatic Complaints = 50, Social Problems = 50, Attention Problems = 51, Rule-breaking Behaviour = 50, Aggressive Behaviour = 50. Right side margin: CLINICAL / NORMAL.

Anxious / Depressed
- 0 14. Cries
- 0 29. Fears
- 0 30. Fearschool
- 0 31. FearDoBad
- 1 32. Perfect
- 0 33. Unloved
- 0 35. Worthless
- 0 45. Nervous
- 0 50. Fearful
- 0 52. Guilty
- 1 71. SelfConsc
- 0 91. Talk Suicide
- 0 112. Worries

Withdrawn / Depressed
- 1 5.   EnjoysLittle
- 0 42. PrefAlone
- 0 65. Won'tTalk
- 1 69. Secretive
- 1 75. Shy
- 0 102. LackEnerg
- 0 103. Sad
- 2 111. Withdrawn

Somatic Complaints
- 0 47. Nightmares
- 0 49. Constipate
- 0 51. Dizzy
- 0 54. Tired
- 0 56a. Aches
- 0 56b. Headaches
- 0 56c. Nausea
- 0 56d. EyeProb
- 0 56e. SkinProb
- 0 56f. Stomach
- 0 56g. Vomit

Social Problems
- 0 11. Dependant
- 0 12. Lonely
- 0 25. NotGetAlong
- 0 27. Jealous
- 0 34. OutToGet
- 0 36. Accidents
- 0 38. Teased
- 0 48. NotLiked
- 0 62. Clumsy
- 0 64. PrefYoung
- 0 79. SpeechProb

Attention Problems
- 0 1. Acts young
- 0 4. FailFinish
- 1 8. Concentr
- 0 10. SitStill
- 0 13. Confused
- 0 17. Daydream
- 1 41. Impulsive
- 0 61. PoorSchool
- 0 78. Inatentive
- 0 80. Stares

Rule-breaking Behaviour
- 0 2. Alcohol
- 0 26. NoGuilt
- 0 28. BreakRules
- 0 39. BadFriends
- 0 43. LieCheat
- 0 63. PrefOlder
- 0 67. RunAway
- 0 72. SetsFires
- 0 73. SexProbl
- 0 81. StealHome
- 0 82. StealsOut
- 0 90. Swears
- 0 96. ThinksSex
- 0 99. Tobacco
- 0 101. Truant
- 0 105. UseDrugs
- 0 106. Vandalism

Aggressive Behaviour
- 0 3. Argues
- 0 16. Mean
- 0 19. DemAtt
- 0 20. DestroyOwn
- 0 21. DestroyOth
- 0 22. Disb.Home
- 0 23. DisbSchool
- 0 37. Fights
- 0 57. Attacks
- 0 68. Screams
- 0 86. Stubborn
- 0 87. MoodChang
- 0 88. Sulks
- 0 89. Suspicious
- 0 94. Teases
- 0 95. Temper
- 0 97. Threaten
- 0 104. Loud

Participant:	432	Gender:	Female	Age:	6 years 0 months
Mother tongue:	Sepedi	School:	Grade 1	Living arrangements:	Mother, 1 sibling and 2 adult family members

Internalizing | **Externalizing**

T SCORE (plot)
- 67 — Somatic Complaints
- 51 — Anxious / Depressed
- 50 — Withdrawn / Depressed
- 53 — Social Problems
- 50 — Attention Problems
- 53 — Rule-breaking Behaviour
- 57 — Aggressive Behaviour

CLINICAL NORMAL

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	2	0	5	2	0	2	7
T-scores	51	50	67	53	50	53	57
Percentile	>50	≤ 50	>93	>50	≤ 50	>50	>69

Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
0 14. Cries	0 5. EnjoysLittle	2 47. Nightmares	0 11. Dependant	0 1. Acts young	0 2. Alcohol	2 3. Argues
2 29. Fears	0 42. PrefAlone	0 49. Constipate	0 12. Lonely	0 4. FailFinish	0 26. NoGuilt	0 16. Mean
0 30. Fearschool	0 65. Won'tTalk	0 51. Dizzy	0 25. NotGetAlong	0 8. Concentr	0 28. BreakRules	0 19. DemAtt
0 31. FearDoBad	0 69. Secretive	0 54. Tired	2 27. Jealous	0 10. SitStill	0 39. BadFriends	2 20. DestroyOwn
0 32. Perfect	0 75. Shy	0 56a. Aches	0 34. OutToGet	0 13. Confused	0 43. LieCheat	0 21. DestroyOth
0 33. Unloved	0 102. LackEnerg	0 56b. Headaches	0 36. Accidents	0 17. Daydream	0 63. PrefOlder	0 22. Disb.Home
0 35. Worthless	0 103. Sad	0 56c. Nausea	0 38. Teased	0 41. Impulsive	0 67. RunAway	0 23. DisbSchool
0 45. Nervous	0 111. Withdrawn	2 56d. EyeProb	0 48. NotLiked	0 61. PoorSchool	0 72. SetsFires	0 37. Fights
0 50. Fearful		0 56e. SkinProb	0 62. Clumsy	0 78. Inatentive	0 73. SexProbl	0 57. Attacks
0 52. Guilty		0 56f. Stomach	0 64. PrefYoung	0 80. Stares	0 81. StealHome	0 68. Screams
0 71. SelfConsc		1 56g. Vomit	0 79. SpeechProb		0 82. StealsOut	0 86. Stubborn
0 91. Talk Suicide					2 90. Swears	1 87. MoodChang
0 112. Worries					0 96. ThinksSex	0 88. Sulks
					0 99. Tobacco	0 89. Suspicious
					0 101. Truant	0 94. Teases
					0 105. UseDrugs	0 95. Temper
					0 106. Vandalism	0 97. Threaten
						2 104. Loud

Participant:	390	Gender:	Male	Age:	6 years 0 months
Mother tongue:	IsiZulu	School:	Grade 1	Living arrangements:	Mother, 6 siblings and 3 adult family members

	Internalizing				Externalizing	

T
S
C
O
R
E

CLINICAL NORMAL

Graph values:
- Anxious/Depressed: 59
- Withdrawn/Depressed: 50
- Somatic Complaints: 76
- Social Problems: 50
- Attention Problems: 57
- Rule-breaking Behaviour: 53
- Aggressive Behaviour: 62

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	5	0	10	0	6	2	10
T-scores	59	50	76	50	57	53	62
Percentile	>69	≤ 50	>98	≤ 50	>69	>50	>84

Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
1 14. Cries	0 5. EnjoysLittle	1 47. Nightmares	0 11. Dependant	2 1. Acts young	0 2. Alcohol	2 3. Argues
2 29. Fears	0 42. PrefAlone	0 49. Constipate	0 12. Lonely	0 4. FailFinish	0 26. NoGuilt	0 16. Mean
0 30. Fearschool	0 65. Won'tTalk	2 51. Dizzy	0 25. NotGetAlong	2 8. Concentr	0 28. BreakRules	2 19. DemAtt
0 31. FearDoBad	0 69. Secretive	0 54. Tired	0 27. Jealous	2 10. SitStill	2 39. BadFriends	1 20. DestroyOwn
0 32. Perfect	0 75. Shy	1 56a. Aches	0 34. OutToGet	0 13. Confused	0 43. LieCheat	0 21. DestroyOth
0 33. Unloved	0 102. LackEnerg	2 56b. Headaches	0 36. Accidents	0 17. Daydream	0 63. PrefOlder	0 22. Disb.Home
0 35. Worthless	0 103. Sad	1 56c. Nausea	0 38. Teased	0 41. Impulsive	0 67. RunAway	0 23. DisbSchool
0 45. Nervous	0 111. Withdrawn	2 56d. EyeProb	0 48. NotLiked	0 61. PoorSchool	0 72. SetsFires	0 37. Fights
0 50. Fearful		0 56e. SkinProb	0 62. Clumsy	0 78. Inatentive	0 73. SexProbl	0 57. Attacks
0 52. Guilty		1 56f. Stomach	0 64. PrefYoung	0 80. Stares	0 81. StealHome	1 68. Screams
0 71. SelfConsc		0 56g. Vomit	0 79. SpeechProb		0 82. StealsOut	0 86. Stubborn
2 91. Talk Suicide					0 90. Swears	0 87. MoodChang
0 112. Worries					0 96. ThinksSex	2 88. Sulks
					0 99. Tobacco	0 89. Suspicious
					0 101. Truant	2 94. Teases
					0 105. UseDrugs	0 95. Temper
					0 106. Vandalism	0 97. Threaten
						0 104. Loud

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Participant:	382	Gender:	Male	Age:	6 years 0 months
Mother tongue:	Sepedi	School:	Grade 1	Living arrangements:	Mother, 1 sibling and 3 adult family members

	Internalizing				Externalizing	
	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour

T SCORE — CLINICAL / NORMAL

Chart T-score plot points: Anxious/Depressed 50, Withdrawn/Depressed 50, Somatic Complaints 57, Social Problems 60, Attention Problems 51, Rule-breaking Behaviour 64, Aggressive Behaviour 66

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	1	0	2	5	2	5	13
T-scores	50	50	57	60	51	64	66
Percentile	≥ 50	≥ 50	>69	84	>50	>84	>93

Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
0 14. Cries	0 5. EnjoysLittle	0 47. Nightmares	1 11. Dependant	0 1. Acts young	0 2. Alcohol	1 3. Argues
0 29. Fears	0 42. PrefAlone	0 49. Constipate	0 12. Lonely	0 4. FailFinish	0 26. NoGuilt	0 16. Mean
0 30. Fearschool	0 65. Won'tTalk	0 51. Dizzy	0 25. NotGetAlong	0 8. Concentr	0 28. BreakRules	0 19. DemAtt
0 31. FearDoBad	0 69. Secretive	0 54. Tired	0 27. Jealous	0 10. SitStill	1 39. BadFriends	0 20. DestroyOwn
0 32. Perfect	0 75. Shy	0 56a. Aches	0 34. OutToGet	0 13. Confused	0 43. LieCheat	0 21. DestroyOth
0 33. Unloved	0 102. LackEnerg	0 56b. Headaches	1 36. Accidents	0 17. Daydream	1 63. PrefOlder	0 22. Disb.Home
0 35. Worthless	0 103. Sad	0 56c. Nausea	1 38. Teased	1 41. Impulsive	0 67. RunAway	0 23. DisbSchool
0 45. Nervous	0 111. Withdrawn	1 56d. EyeProb	0 48. NotLiked	1 61. PoorSchool	1 72. SetsFires	1 37. Fights
0 50. Fearful		1 56e. SkinProb	1 62. Clumsy	0 78. Inatentive	0 73. SexProbl	1 57. Attacks
1 52. Guilty		0 56f. Stomach	1 64. PrefYoung	0 80. Stares	0 81. StealHome	2 68. Screams
0 71. SelfConsc		0 56g. Vomit	0 79. SpeechProb		0 82. StealsOut	0 86. Stubborn
0 91. Talk Suicide					2 90. Swears	1 87. MoodChang
0 112. Worries					0 96. ThinksSex	0 88. Sulks
					0 99. Tobacco	0 89. Suspicious
					0 101. Truant	2 94. Teases
					0 105. UseDrugs	2 95. Temper
					0 106. Vandalism	1 97. Threaten
						2 104. Loud

Participant:	302	Gender:	Female	Age:	6 years 0 months
Mother tongue:	Sepedi	School:	Pre-school	Living arrangements:	Mother and father

	Internalizing					Externalizing	

T
S
C
O
R
E

100
95
90
85
80
75
70
65
60
55
≤50

84
68
72
72
69
74
75

CLINICAL

NORMAL

	Anxious / Depressed	Withdrawn / Depressed	Somatic Complaints	Social Problems	Attention Problems	Rule-breaking Behaviour	Aggressive Behaviour
Total score	18	5	8	11	12	11	20
T-scores	84	68	72	72	69	74	75
Percentile	>98	>93	≥ 98	>98	>93	>98	>98

Anxious / Depressed		Withdrawn / Depressed		Somatic Complaints		Social Problems		Attention Problems		Rule-breaking Behaviour		Aggressive Behaviour	
0	14. Cries	0	5. EnjoysLittle	2	47. Nightmares	2	11. Dependant	2	1. Acts young	0	2. Alcohol	2	3. Argues
2	29. Fears	0	42. PrefAlone	2	49. Constipate	2	12. Lonely	2	4. FailFinish	0	26. NoGuilt	1	16. Mean
0	30. Fearschool	0	65. Won'tTalk	0	51. Dizzy	0	25. NotGetAlong	0	8. Concentr	0	28. BreakRules	2	19. DemAtt
2	31. FearDoBad	1	69. Secretive	0	54. Tired	0	27. Jealous	2	10. SitStill	2	39. BadFriends	2	20. DestroyOwn
2	32. Perfect	2	75. Shy	0	56a. Aches	1	34. OutToGet	0	13. Confused	2	43. LieCheat	2	21. DestroyOth
2	33. Unloved	0	102. LackEnerg	0	56b. Headaches	2	36. Accidents	2	17. Daydream	2	63. PrefOlder	0	22. Disb.Home
2	35. Worthless	0	103. Sad	0	56c. Nausea	2	38. Teased	2	41. Impulsive	2	67. RunAway	0	23. DisbSchool
1	45. Nervous	2	111. Withdrawn	2	56d. EyeProb	0	48. NotLiked	0	61. PoorSchool	0	72. SetsFires	0	37. Fights
2	50. Fearful			2	56e. SkinProb	0	62. Clumsy	2	78. Inatentive	0	73. SexProbl	1	57. Attacks
2	52. Guilty			0	56f. Stomach	2	64. PrefYoung	0	80. Stares	1	81. StealHome	2	68. Screams
2	71. SelfConsc			0	56g. Vomit	0	79. SpeechProb			1	82. StealsOut	2	86. Stubborn
0	91. Talk Suicide									0	90. Swears	2	87. MoodChang
1	112. Worries									0	96. ThinksSex	0	88. Sulks
										0	99. Tobacco	0	89. Suspicious
										0	101. Truant	2	94. Teases
										0	105. UseDrugs	2	95. Temper
										1	106. Vandalism	0	97. Threaten
												2	104. Loud