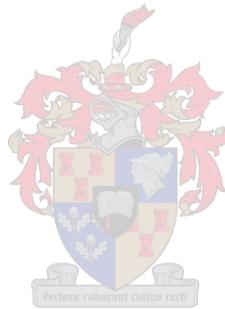


Aspects of middle childhood fears: Reports by children and their parents from a South African farming community

James Michael Burnett



Thesis presented in partial fulfilment of the requirements for the degree of
Master of Arts (Psychology) at Stellenbosch University

Supervisor: Dr HS Loxton

March 2008

DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is my own original work, and that I have not previously in its entirety or in part submitted it at any university for a degree.

.....
Signature

.....
Date

SUMMARY

Fear is a normal, expected human emotion, and as such it is also part of children's normal development. South African research indicates that fear is context related. However, little is known regarding fear in specific contexts, such as a South African farming community. In order to facilitate the identification of excessive or abnormal fears, a reliable literature base regarding normal fears in that specific context is required. Without such a contextualised literature base, clinicians will find it difficult to distinguish between normal developmental fears and excessive or abnormal fears for children in that specific context. Due to the lack of research in South Africa regarding middle childhood fears from children in a specific context, such as a farming community, the current study aims at exploring a fear profile of middle childhood children from a South African farming community.

The aim of the current study pertains to four research questions: (1) What are the content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region? (2) Are there any differences between the Koala Fear Questionnaire (KFQ) scores without visual cues (KFQ1) and the KFQ scores with visual cues (KFQ2)? (3) Are there gender differences regarding content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region? (4) Are there differences regarding content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region as reported in child reports and parental reports?

The participants consisted of a sample of 84 children between the ages of 10 and 12 years, attending a local primary school in the Stellenbosch region in the Western Cape, South Africa, and the parents of 56 of the children. Two measuring instruments were used to assess childrens' fears, namely the Fear List Method (FLM) and the Koala Fear Questionnaire (KFQ). The parents completed the Parental Biographical Questionnaire (PBQ).

Analysis of the data from the FLM revealed that *Wild animals* was the largest fear category for the total sample of children (46.4%), with children expressing an average of 2.37 fears ($SD = 0.875$) and an average intensity of 2.88 ($SD = 0.361$).

The findings of the current study are discussed and each of the four research questions is addressed individually in order to facilitate a comprehensive answer to each.

OPSOMMING

Vrees is 'n normale, verwagte menslike emosie en as sodanig is dit ook deel van 'n kind se normale ontwikkeling. Suid-Afrikaanse navorsing dui aan dat vrees konteksverwant is. Min is egter bekend oor vrees binne spesifieke kontekste soos in 'n Suid-Afrikaanse plaasgemeenskap. Om die identifisering van buitensporige of abnormale vrese te vergemaklik, word betroubare literatuur aangaande normale vrese binne daardie spesifieke konteks benodig. Sonder sodanig gekontekstualiseerde literatuuurbasis sal klinici dit moeilik vind om te onderskei tussen normale ontwikkelingsvrese en buitensporige of abnormale vrese by kinders in daardie spesifieke konteks. Vanweë die gebrek aan navorsing in Suid-Afrika aangaande middel-kinderjare vrese by kinders in 'n spesifieke konteks - soos 'n plaasgemeenskap - stel die huidige studie hom ten doel om 'n vreesprofiel van middel-kinderjare kinders afkomstig van 'n Suid-Afrikaanse plaasgemeenskap te ondersoek.

Die doel van die studie verwys na vier navorsingsvrae: (1) Wat is die inhoud, aantal en intensiteit ten opsigte van die vrese onder 'n groep middel-kinderjare kinders in 'n Suid-Afrikaanse plaasgemeenskap in die Stellenbosse omgewing? (2) Is daar enige verskille tussen die 'Koala Fear Questionnaire (KFQ)' sonder visuele prikkels (KFQ1) en die 'KFQ' met visuele prikkels (KFQ2)? (3) Is daar geslagsverskille aangaande inhoud, aantal en intensiteit van vrese onder 'n groep middel-kinderjare kinders in 'n Suid-Afrikaanse plaasgemeenskap in die Stellenbosse omgewing? (4) Is daar verskille rakende die inhoud, aantal en intensiteit van die vrese onder 'n groep middel-kinderjare kinders vanuit 'n Suid-Afrikaanse plaasgemeenskap in die Stellenbosse streek soos gerapporteer deur onderskeidelik deur kinders en deur ouers?

Die deelnemers het bestaan uit 'n steekproef van 84 kinders tussen die ouderdomme van 10 en 12 jaar wat 'n plaaslike primêre skool in die Stellenbosse omgewing, in die Wes-Kaap, Suid-Afrika, bywoon, en die ouers van 56 van die kinders. Twee meetinstrumente is aangewend om kinders se vrese te meet, naamlik die 'Fear List Method (FLM)' en die 'Koala Fear Questionnaire (KFQ)'. Die ouers het die 'Parental Biographical Questionnaire (PBQ)' voltooi.

'n Analise van die data verkry uit die FLM het aan die lig gebring dat *Wilde diere* die grootste vrees kategorie was vir die hele steekproef kinders (46.4%), met kinders wat gemiddeld 2.37 vrese (SD = 0.875) aangedui het en 'n gemiddelde intensiteit van 2.88 (SD = 0.361).

Die bevindinge van die huidige studie word bespreek en elk van die vier navorsingsvrae word individueel aangespreek om 'n omvattende antwoord op elk te verkry.

ACKNOWLEDGEMENTS

Ek wil graag my innige dank en waardering uitspreek teenoor die volgende persone:

- Doktor Helene Loxton, my supervisor, vir haar leiding en voortdurende ondersteuning en motivering. Haar passie en liefde vir kindersielkunde is 'n bron van inspirasie.
- Me Marieanna le Roux, vir haar opregte bereidheid om met enige probleem te help en haar hulp met die tegniese versorging.
- Die navorsingsassistente, vir hul hulp tydens data insameling.
- My familie en vriende, vir hul liefde en ondersteuning.
- Lindi, vir al die lang nagte van stories uitruil en wedersydse ondersteuning by tye van wanhoop toe die einde nog so ver gelyk het.
- My mede M-studente, vir julle vriendelike gesigte en woorde van bemoediging.
- Al die kinders en hul ouers sonder wie hierdie studie nie moontlik sou gewees het nie.

TABLE OF CONTENTS

CONTENTS	PAGE
Declaration	ii
Summary	iii
Opsomming	iv
Acknowledgements	vi
Table of contents	vii
List of Tables	xi
Chapter 1: Introduction, motivation and aims	1
1.1 Introduction	1
1.2 Overview of thesis	2
1.3 Motivation for the study	3
1.3.1 Motivation for specific age group	3
1.3.2 Scientific relevance	4
1.3.2.1 Expanding the current literature base	4
1.3.2.2 Child-friendly measuring instrument	7
1.3.3 Social relevance	8
1.4 Aims	10
1.5 Key concepts	10
1.5.1 Operationalising fear	10
1.5.2 Defining aspects of fear	10
1.5.2.1 Content of fears	10
1.5.2.2 Number of fears	10
1.5.2.3 Intensity of fears	11
1.5.3 Defining participants	11
1.5.3.1 Middle childhood children	11
1.5.3.2 Parents	11
1.5.4 Age	11
1.5.5 Gender	12
1.5.6 Contextualising the farming community	12
1.5.7 Defining socioeconomic status	13

Chapter 2: Literature review	14
2.1 The construct of fear	14
2.2 Measuring fear	14
2.3 Aspects of fear	17
2.3.1 Content of fears	17
2.3.1.1 Content of fears and age pattern	18
2.3.1.2 Content of fears and gender	19
2.3.1.3 Content of fears and socioeconomic status	20
2.3.2 Number of fears	20
2.3.2.1 Number of fears and age pattern	21
2.3.2.2 Number of fears and gender	21
2.3.2.3 Number of fears and socioeconomic status	22
2.3.3 Intensity of fears	22
2.3.3.1 Intensity of fears and age pattern	23
2.3.3.2 Intensity of fears and gender	23
2.3.3.3 Intensity of fears and socioeconomic status	24
2.4 Parental perceptions of children's fears	24
Chapter 3: Theoretical framework	26
3.1 Bronfenbrenner's ecological systems theory	26
3.2 Developmental theories	29
3.2.1 Erikson's psychosocial theory	29
3.2.2 Cognitive-developmental theory	30
3.3 Social learning theory	31
Chapter 4: Methodology	33
4.1 Research design	33
4.2 Participants	33
4.3 Measuring instruments	34
4.3.1 Child fear measures	34
4.3.1.1 Fear List Method (FLM)	34
4.3.1.2 Koala Fear Questionnaire (KFQ)	35
4.3.2 Parental Biographical Questionnaire (PBQ)	36

4.4 Procedure	37
4.5 Data analysis	38
Chapter 5: Results	39
5.1 Demographic characteristics of participants	39
5.2 Description of the content of fears	39
5.2.1 Fear rank order based on the results of the FLM content	39
5.2.2 Fear rank order based on the results of the PBQ content	40
5.2.3 Fear rank order based on the results of the KFQ1	41
5.2.4 Fear rank order based on the results of the KFQ2	43
5.2.5 Significant differences between the KFQ1 and the KFQ2	45
5.3 Description of the number of fears	46
5.3.1 Number of fears based on the results of the FLM	46
5.3.2 Number of fears based on the results of the PBQ	46
5.3.3 Significant differences between the number of fears as reported by children and parents	46
5.3.4 Number of fears based on the results of the KFQ1	47
5.3.5 Number of fears based on the results of the KFQ2	48
5.3.6 Significant differences between the number of fears on the KFQ1 and the KFQ2	49
5.4 Description of the intensity of fears	50
5.4.1 Intensity of fears based on the results of the FLM	50
5.4.2 Intensity of fears based on the results of the PBQ	50
5.4.3 Significant differences between the intensity of fears as reported by children and parents	51
5.4.4 Intensity of fears based on the results of the KFQ1	52
5.4.5 Intensity of fears based on the results of the KFQ2	52
5.4.6 Significant differences between the intensity of fears on the KFQ1 and the KFQ2	53
Chapter 6: Discussion	54
6.1 Research question one	54
6.1.1 Content of fears	54
6.1.2 Number of fears	56
6.1.3 Intensity of fears	57
6.2 Research question two	58
6.2.1 Content of fears	58

6.2.2 Number of fears	59
6.2.3 Intensity of fears	60
6.3 Research question three	60
6.3.1 Content of fears	60
6.3.2 Number of fears	62
6.3.3 Intensity of fears	63
6.4 Research question four	64
6.4.1 Content of fears	64
6.4.2 Number of fears	65
6.4.3 Intensity of fears	66
Chapter 7: Conclusion	68
References	72
Addenda	79
A. Department of Education, Western Cape: Permission letter	79
B. Department of Education, Western Cape: Permission letter for extension of research period	80
C. School: Information letter	81
D. Parents/Guardians: Information and permission letter	82
E. Parents/Guardians: Information and permission letter (child)	84
F. Child: Information and permission letter	86
G. Parental biographical questionnaire	88
H. Fear list method	90

LIST OF TABLES

Table 1: Demographic Characteristics of the Sample	39
Table 2: Fear List Method (FLM) Content Fear Rank Order for Children	40
Table 3: Parental Biographical Questionnaire (PBQ) Fear Rank Order of Content by Parents	40
Table 4: Koala Fear Questionnaire without Visual Cues (KFQ1) Frequency and Rank Order of Fears	42
Table 5: Koala Fear Questionnaire with Visual Cues (KFQ2) Frequency and Rank Order of Fears	44
Table 6: Statistically Significant Differences <i>Between KFQ1 and KFQ2 Scores</i>	45
Table 7: Results of Significant Differences using the McNemar - Bowker Test	45
Table 8: Fear List Method (FLM) Number, M and SD of Fears	46
Table 9: Parental Biographical Questionnaire (PBQ) Number, M and SD of Fears	46
Table 10: Results of Significant Differences between Child and Parent	47
Table 11: Mann-Whitney Test Results of Gender Differences on Number of Fears	47
Table 12: Koala Fear Questionnaire without Visual Cues (KFQ1) Number, M and SD of Fears	48
Table 13: Koala Fear Questionnaire with Visual Cues (KFQ2) Number, M and SD of Fears	48
Table 14: Results on Significant Differences regarding Number of Fears	49
Table 15: Mann-Whitney Test Results of Gender Differences on Number of Fears	50
Table 16: Fear List Method (FLM) Intensity of Fear	50
Table 17: Parental Biographical Questionnaire (PBQ) Intensity of Fear	51
Table 18: Significant Differences between Child and Parent	51
Table 19: Mann-Whitney Test Results of Gender Differences on Intensity of Fears	52
Table 20: Koala Fear Questionnaire without Visual Cues (KFQ1) Intensity of Fears	52
Table 21: Koala Fear Questionnaire with Visual Cues (KFQ2) Intensity of Fears	52
Table 22: Wilcoxon Signed Ranks Test Results on Intensity of Fears	53
Table 23: Mann-Whitney Test Results of Gender Differences on Intensity of Fears	53

CHAPTER 1

INTRODUCTION, MOTIVATION AND AIMS

1.1 Introduction

Fear is a normal, expected human emotion, and as such it is also part of children's normal development (Albano, Causey & Carter, 2002; Marks 1987). One of the primary functions of fear is promoting the survival of an organism (Gullone, 1999, 2000). The construct of fear has been well researched internationally (Gullone, 1999; 2000; Jerslid & Holmes, 1935; Marks, 1987; Muris & Merckelbach, 2000; Muris, Merckelbach, Ollendick, King & Bogie, 2001; Scherer & Nakamura, 1968) and to a lesser extent in South Africa (Burkhardt, 2002; 2003; Burkhardt, Loxton & Muris, 2004; Keller, 2001; Loxton, 2004; Martalas, 1999). South African research indicates that fear is context related (Burkhardt, 2002; Burkhardt, Loxton et al., 2003; Loxton, 2004). However, little is known regarding fear in specific contexts. Fear is a complex phenomenon with many different aspects. For the purpose of the current study, the construct of fear could be divided into three distinct, but connected aspects, namely content, number and intensity. Content of fear refers to the specific topic or focus of fear. Number of fears indicates the precise number of fears children report, while intensity of the fears refers to the level or degree with which fear is experienced.

Prevalence of fear among children has been well documented on both an international level (Muris, Merckelbach, Gadet & Moulaert, 2000; Muris, Merckelbach & Luijten, 2002; Muris, Merckelbach, Ollendick, King & Bogie, 2001) and to a lesser extent in South Africa (Burkhardt, 2002, 2003; Burkhardt, Loxton et al., 2003; Keller, 2001; Martalas, 1999). Although fear is a normal part of childhood development (Albano, Causey & Carter, 2002; Marks, 1987), research has shown that excessive fear could inhibit the development and functioning of a child and may even be indicative of anxiety disorders (McCathie & Spence, 1991; Muris, Merckelbach, Mayer & Prins, 2000; Ollendick & King, 1994).

In order to facilitate the identification of excessive or abnormal fears, a reliable literature base regarding normal fears in that specific context is required. Without such a reliable, contextualised literature base, clinicians may find it difficult to distinguish between normal developmental fears and excessive or abnormal fears for children in that specific context. Due to the lack of research in South Africa regarding middle childhood fears from children in a specific context, such as a farming

community, the current study aims at exploring a fear profile of middle childhood children from a South African farming community.

1.2 Overview of the thesis

Chapter 1 contains the introduction and overview of the thesis. The motivation, aims and key concepts of the study are also discussed.

Chapter 2 contains the literature review of the thesis. Three aspects of middle childhood fears are discussed, namely content, number and intensity. Gender differences, parental perceptions and socioeconomic status are also discussed in this chapter.

Chapter 3 contains the theoretical framework for the study. Relevant developmental theories are discussed, namely the systems theory, psychosocial theory, cognitive-development theory, and social learning theory.

Chapter 4 contains the methodology employed in the study. This includes research design, participants, measuring instruments, procedure and data analysis.

Chapter 5 contains the explorative results of the study. The three aspects of middle childhood fears (content, number and intensity) are reported on. Significant differences between measuring instruments are explored.

Chapter 6 contains the discussion of the results reported in Chapter 5. Content, number and intensity of middle childhood fears are discussed and compared with previous international and South African results.

Chapter 7 contains the conclusion of the study, with recommendations and shortcomings of the study.

1.3 Motivation for study

The current study is explorative in nature. As far as the researcher could establish, research examining normal middle childhood fears amongst children (between 10 and 12 years of age) in a coloured* farming community has not yet previously been undertaken.

1.3.1 Motivation for specific age group

Apart from forming part of the largest group in the South African population (11.29%, according to Statistics South Africa, 2003), namely the 10 to 14 year old sub-group, the motivation for using children between the ages of 10 and 12 is twofold. Firstly, middle childhood children are a potentially vulnerable group. Secondly, it enables some age comparison with previous research. These two factors will be discussed.

The period in the lifespan, known as middle childhood, commences at approximately the age of 6 and ends approximately at the age of 12 years. Middle childhood is an important time period for cognitive, social, and emotional development, as well as the development of the child's self-concept. During the time of middle childhood, the child has many tasks to master, which comprises the development of the child in the following aspects: fine motor development, gender role identity development, cognitive skills development and the expansion of self-knowledge (Louw, 1998; Louw, Van Ede, Ferns, Schoeman & Wait, 2001). Children who are unable to master these social and school related tasks, are at risk of developing anxiety-, behavioural- or developmental disorders (Wait, 2004). According to Erikson's psychosocial theory (Hergenhahn & Olson, 2003), children between the ages of 6 and approximately 11 fall in the fourth stage, Industry versus Inferiority. During this stage children should learn to become productive members of their specific cultures. This can only be achieved by developing a sense of industry. If children fail to develop a sense of industry, they will develop inferiority. This feeling of inferiority prevents children from feeling like productive, valued members of society, and creates a feeling of being unable to contribute something meaningful (Hergenhahn & Olson, 2003).

This specific age group is considered the optimal age during which intervention programmes are most successful. Miller, Barret, Hampe and Noble (1972) found age 6 to 12 years to be the period during

* The use of the term "coloured", "black" and/or "white" participants could be viewed as controversial. The term will be used descriptively and in the context as explained and in order to make cross-cultural comparisons

which interventions for fear-related problems were most successful, with the success rate of intervention decreasing from the age of 13. The findings of the current study could thus play a future role in informing and directing future research aimed at the development of intervention programmes for this crucial stage of development.

According to Marks (1987) the content of fears changes throughout the range of developmental phases. Previous studies (Gullone & King, 1993; Muris, Merckelbach, Gadet et al., 2000; Muris et al., 2002; Ollendick, King & Frary, 1989) have all broken down middle childhood into different sub-categories in order to facilitate comparison between age groups. The current study will focus on children between the ages of 10 and 12 years.

1.3.2 Scientific relevance

The scientific relevance for the current study is based on two important factors. Factor one is to expand the current literature base by specifically conducting research in an under-researched area, that of middle childhood children (between the ages of 10 and 12 years) from a South African farming community. The researcher conducted a wide search of literature pertaining to this specific context. As far as the researcher could ascertain, very little previous research has been done. Factor two is to employ more child-friendly fear measuring instruments than traditional questionnaires, namely the Fear List Method (FLM), which is a semi-structured interview, and the Koala Fear Questionnaire (KFQ). The KFQ has never before been used in the South African context. These two important factors will be described.

1.3.2.1 Expanding the current literature base

Expanding the current literature base can add to the better understanding of middle childhood children in a specific context, such as a South African farming community. The content, number and intensity of the fears play an important role in the world of the children. As research focusing on childhood fears adds to the understanding of normal childhood development, it is important to conduct further research in this field. The results of further research provides researchers with significant information pertaining to the developmental pattern, intensity and frequency of fears, which are used to distinguish between normal fear, abnormal fear and phobias (Gullone, 2000). The identification of excessive or abnormal fears requires a reliable literature base regarding the fear profile of middle childhood children in that specific context. When no reliable, contextualised fear profile exists, clinicians may find it difficult to distinguish between developmentally normal fears and excessive or abnormal fears as pertaining to

children in that specific context. The current study will aim at exploring the fear profile of middle childhood children living in the specific context of a South African farming community.

The current study will contribute to expanding the current literature base regarding middle childhood fears in the specific context of a South African coloured farming community. In South Africa, normative research was conducted with regard to the content and number of preschoolers' expressed fears (Keller 2001; Loxton, 2004; Martalas, 1999). Research was also conducted with regard to the content and number of expressed fears during middle childhood (Burkhardt, Loxton et al., 2003) and in children from a special population living in childrens' homes (Burkhardt, 2003). Although the above-mentioned South African studies have greatly added to the existing body of academic knowledge pertaining to the fears of preschool and middle childhood children in general, there is a dearth of literature focusing on childhood fears in specific contexts, such as farming communities.

Coloured children are a potentially vulnerable and at risk group in the South African context because of a greater likelihood of developing anxiety disorders (Burkhardt, Loxton et al., 2003; Muris et al., 2006; Muris, Schmidt et al., 2002). This vulnerability is further increased by three distinct but interrelated factors. Factor one is the context in which the children live (a South African farming community). Factor two is the demographic and racial group to which the children belong (coloured children). The third factor is the children's lack of educational stimulation with potential deficits with regard to the cognitive skill of visual-motor integration. These three factors will be discussed.

A South African farming community is contextualised as a rural or non-urban community. The total population of South Africans living in rural or non-urban areas is approximately 45%. The dominant economic sector in these communities is most often the agricultural sector, and the community is characterised as one with restricted resources, as is typical of a low-income community (The Presidency, 2000). The aforementioned restrictions create challenges for the communities, such as limited development opportunities for the community as a whole (The Presidency, 2000). Farm workers form part of the lowest SES households in the rural community, and approximately 75% of all children living in rural communities form part of households with a SES below the subsistence level. From the above it clear that children from farming communities are potentially a vulnerable population, faced with many challenges (The Presidency, 2000).

Three South African studies (Burkhardt, Loxton et al., 2003; Muris et al., 2006; Muris, Schmidt et al., 2002) support the notion that coloured South African children are a more at risk population group for anxiety disorders than white children. Research has found that parental rearing behaviours, such as rejection and anxiousness, are related to increased levels of anxiety and worry (Muris et al., 2006; Muris, Meesters, Merckelbach & Hülsenbeck 2000). A recent study by Muris et al. (2006) found that coloured children presented significantly higher anxiety levels than white children. Furthermore, coloured children reported their parents as being more anxious, overprotective and rejective than white parents. Burkhardt, Loxton et al. (2003) reported that coloured children between the ages of 9 and 13 years, presented higher levels of fearfulness than their white counterparts (157.6 and 137.4, respectively). Muris, Schmidt, Engelbrecht and Perold (2002) measured anxiety levels in South African children. The aforementioned study reported two very relevant findings. Firstly, South African children displayed higher levels of anxiety compared to Dutch and other Western children. Secondly, coloured children exhibited higher levels of anxiety than white children.

Apart from these adverse examples mentioned above, there are high levels of illiteracy and low levels of formal schooling amongst the coloured community. According to Statistics South Africa (2003) 8.25% of the coloured population of 20 years of age and older have no form of schooling, 18.37% received some form of primary school, and 9.83% only completed primary school, giving a total of 36.45% having received either no or inadequate schooling. Coupled with schooling is visual-motor integration as it is considered a very important component of childhood development (Chan, 2000; Gruber & Vonèche, 1977; Piaget & Inhelder 1969; Tennant, 1986). This is especially true for the advancement in formal learning activities (Brand, 1991; Vorster 1994). According to research (Hanekom, 1991) visual-motor integration plays a crucial role in children's development of skills in the beginning of their scholastic education, such as reading, writing and arithmetic. In a recent study Lotz, Loxton and Naidoo (2005) examined the visual-motor integration functioning of a sample of South African children ranging from 7 to 13 years in age ($M = 8$ years and 10 months). Results indicated that the children displayed a mean level of integration equal to children functioning at 7 years and 6 months. This indicates that with regard to visual-motor integration, there was a 16 months discrepancy between their test age and their chronological age (Lotz et al., 2005). In a study examining visual-motor integration, Dunn, Loxton and Naidoo (2006) reported that coloured children in the same regional area scored significantly lower than white children.

1.3.2.2 Child-friendly measuring instruments

For the current study a semi-structured interview, the Fear List Method (FLM), based on asking children what they fear, and a structured interview, the Koala Fear Questionnaire (KFQ) was used to assess fears. Various measuring instruments and methods exist to measure fear. Burkhardt (2002; 2003) opted to use the Free Option Method (FOM), (asking children to list what they feared most) and a standardised fear questionnaire, namely the Fear Survey Schedule for Children – Revised (FSSC-R) to determine fears. When comparing results from these two measuring instruments, the FOM and the FSSC-R, it is evident that the results vary. According to Burkhardt (2002) the use of the FOM resulted in a wider range of fears being expressed. The afore-mentioned range of fears differs from the range of fears expressed when using the FSSC-R. In her study with children from a children's home, Burkhardt (2003) reported that when using the FOM the fear endorsed the most was the fear of snakes (41.13%), and that children reported an average of 3.97 fears. However, when using the FSSC-R, the fear most endorsed by children was not being able to breathe (68.80%), with children expressing an average of 29.96 fears. Comparison is, however, not advisable as the two measuring instruments use a different methodology. The FSSC-R is a structured, 80-item fear questionnaire and the FOM relies on a semi-structured interview format.

The FLM is a semi-structured interview constructed by the researcher based on the questions of Burkhardt (2003) in order to enable comparison between studies. The FLM involves asking the children to list what they fear and then to indicate how much they fear a particular item.

According to Muris, Merckelbach, Meesters and Van Lier (1997) the measuring instrument used most frequently to measure childhood fears is the FSSC-R. Although the FSSC-R correlates well with the KFQ, the KFQ is considered a more child-friendly measuring instrument than the FSSC-R (Muris, Meesters et al., 2003). The KFQ consists of 31 stimuli and situations represented by pictures which were specifically chosen because of their ability to create fear, whereas the FSSC-R consists of 80 items, making the FSSC-R a considerable longer questionnaire. Furthermore, all 31 stimuli and situations depicted in the KFQ are presented in the form of pictures or drawings. The advantage of using the KFQ is that the child can indicate on each item his or her subjective level of fear intensity in the presence of a visual cue, by selecting the visual representation of the Koala bear that matches the level of intensity of the fears which they experience. The first of three pictures of the Koala bears indicates *No fear*, the second Koala bear indicates *Some fear*, and the third Koala bear indicates *A lot of*

fear. The total score is calculated by adding all the individual item scores together (*No fear* = 1, *Some fear* = 2, and *A lot of fear* = 3) to obtain a score between 31 and 93 (Muris, Meesters et al., 2003).

As the KFQ employs visual cues, it is important to take into account the possible effects of these cues on the reporting of fears by the children. Visual cues play an important emotional role with regard to fear and anxiety (Waters, Lipp & Spence, 2004). According to recent research (Waters et al., 2004), clinically anxious children display an attention bias towards stimuli which are related to fear. Furthermore research has found that people with *Spider* and *Blood-injection-injury* related fears, report high levels of fear and disgust when they are confronted by visual representations or picture of spiders and/or surgical operations (Sawchuk, Lohr, Westendorf, Meunier & Tolin, 2002). Muris, Bodden et al. (2003) investigated the effects of negative information on fear and fearfulness, as well as children's levels of fearfulness when confronted with fear-provoking stimuli. The aforementioned study found that when children are confronted with a fear-provoking stimulus and provided with negative information regarding this stimulus, an increase in their level of fearfulness was measured. All 31 stimuli and situations depicted in the KFQ are presented in the form of pictures or drawings (Muris, Meesters et al., 2003). Therefore, the impact of these visual cues on the reporting of fears by the children should be investigated. In the current study this will be done by administering the KFQ without the accompanying visual cues (called the KFQ1 by the researcher) and then re-administering the KFQ with the accompanying visual cues (called the KFQ2) after a period of one month has lapsed.

1.3.3 Social relevance

The **social relevance** of the current study is based on two factors. Factor one is the expansion of knowledge regarding middle childhood fears in a vulnerable age group (children between ages 10 to 12 years). According to Miller et al. (1972) children between the age of 6 and 12 years are most susceptible to interventions for fear-related problems. However, the success rate of intervention decreases from 13 years of age (Miller et al.). The findings of the current study can thus play a future role in informing and directing future research aimed at the development of intervention programmes for this specific group. Factor two pertains to the conduct of research in a specific context, that of a coloured farming community in South Africa.

Findings from previous research (Burkhardt 2002; Muris et al. 2006), with reference to the content of fear and fearfulness experienced and reported among South African children, suggest that the high crime level in South Africa may have influenced the rank order in which children rate their fears.

Furthermore, fears regarding guns, gangs, crime, weapons, and hooligans were reported frequently. The aforementioned results were more prevalent among coloured and black children (Burkhardt, Loxton et al., 2003). These findings serve as further indication that coloured children are a potentially vulnerable and at risk group.

South African society is characterised by very high levels of violence, with one of the highest levels of murder and rape reported in the world (Van der Hoven, 2001). According to the South African Police Service (2005), documented statistics indicate the following number of crimes were committed in South Africa between April 2004 and May 2005: murder: 18 793, rape: 55 114; assault with the intent to inflict grievous bodily harm: 249 369 and neglect and ill-treatment of children: 5 568.

According to the National Programme of Action for Children in South African (2001), children in South Africa are exposed to extremely high levels of violence, which assume a variety of forms. These various forms of violence include political violence, social violence, criminal violence and domestic violence. In 1998 the total number of reported cases of sexual violence against children (rape, sodomy, indecent assault, and other sexual offences) peaked at 21 204 cases. Furthermore, the total number of reported cases of assault against children (attempted murder, assault with grievous bodily harm, common assault) was 8613, whilst the total number of overall cases which involved violence against children was a staggering 37 352 cases. The variability in number of cases reported constitutes a 58% increase in cases from 1994 in which 23 664 cases of violence against children were reported.

Society has a social responsibility toward its children, which includes providing children with a safe and nurturing environment. According to the National Programme of Action for Children in South African (2001), the South African government endorsed the United Nations Convention on the Rights of the Child (CRC) in 1995, which made the needs of the child a priority in the developmental strategies of the South African government. South African society as a whole, from family to governmental level, has a social responsibility toward the children of the country (National Programme of Action for children in South Africa, 2001).

It is hoped that the results of the current, explorative study could play a future role in informing and directing future research aimed at the development of intervention programmes for children from this specific context.

1.4 Aims

The research questions of the current study are as follows:

1. What are the content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region?
2. Are there any differences between the Koala Fear Questionnaire (KFQ) scores without visual cues (KFQ1) and the KFQ scores with visual cues (KFQ2)?
3. Are there gender differences regarding content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region?
4. Are there differences regarding content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region as reported in child reports and parental reports?

1.5 Key concepts

1.5.1 Operationalising fear

For purpose of the current study, the concept of fear is separated from anxiety. The distinction between the aforementioned concepts is made on the basis that fear is considered a normal reaction to specific situations or objects, and anxiety is a long-term response to a vague, unspecific source or sources (Sarafino, 1986). According to Marks (1987) and Sarafino (1986), fear could be defined as a response or reaction to real or expected danger, which results in an unpleasant feeling. The aforementioned definition is appropriate for the current study as it clearly captures the aims of this research.

1.5.2 Defining aspects of fear

1.5.2.1 Content of fears

For the purpose of the current study the content of fear can be defined as the specific topic or focus of fear. For the FLM and Parental Biographical Questionnaire (PBQ), content will refer to the specific rank order of fears. For the KFQ, content will refer to the individual items of the questionnaire.

1.5.2.2 Number of fears

The number of fears expressed by children can only be compared when the same measuring instruments are used. In the FOM, number of fears refers to the total sum of fears as expressed by children (Burkhardt, 2003; Burkhardt, Loxton et al., 2003). For the purpose of the current study, the

number of fears will be calculated in the following manner. On the FLM, number will refer to the number of fears as expressed by the children. The FLM is very similar to the FOM. For the PBQ, it will refer to the number of fears as reported by the parents. On the KFQ, number of fears will be calculated by adding the items together on which children indicated *A lot of fear*.

1.5.2.3 Intensity of fears

According to Muris, Meesters et al. (2003) intensity of the fears refers to the level of discomfort that children indicate they are experiencing when confronted with a specific fear. For the purpose of the current study intensity of fear will similarly refer to the level of discomfort children experience. On the FLM, children are asked to rate their level of fear on a simply 2-point scale (*A little afraid* =1 and *Very afraid* = 2). The PBQ measures intensity in the same manner as the FLM. For the KFQ, intensity is measured by adding the scores of the individual items together to get a score between 31 and 93.

1.5.3 Defining participants

1.5.3.1 Middle childhood children

Middle childhood usually describes the age period of 6 to 12 years (Louw, 1998; Louw et al., 2001). The current study collected data from children ranging between 10 and 12 years, attending a local primary school in the Stellenbosch region. The majority of South African school children attend primary school and fall in the period of middle-childhood (Louw et al., 2001). According to Statistics South Africa (2003), the largest subgroup of the South African population is the 10 to 14 year old group (11.29%). This means middle childhood children constitute a numerous and very important group in the South African context.

1.5.3.2 Parents

For the purpose of the current study, the term “parent” will refer to either the biological parent or the primary caregiver of the child that was assessed. The consent forms were signed by one of the parents and only one questionnaire, completed by the parents, was used per child.

1.5.4 Age

The current study explored three aspects, namely content, number and intensity, of middle childhood fears in a sample of children between the ages of 10 and 12 years ($M = 10.82$). The motivation for using this specific age group is twofold. Firstly, middle childhood children are a vulnerable and at risk group. Secondly, to enable age comparison with previous research, which divides middle childhood

into sub-categories (Gullone & King, 1993; Muris, Merckelbach, Gadet et al., 2000; Muris et al., 2002; Ollendick et al., 1989).

1.5.5 Gender

Previous research indicates differences pertaining to middle childhood fears between gender (Burkhardt, 2003; Gullone & King, 1993; Muris, Merckelbach, Meesters et al., 1997; Muris, Bodden et al., 2003). Therefore, the current study aims at investigating possible differences between gender in the study sample.

1.5.6 Contextualising the farming community

The research was conducted amongst a farming community, which is situated in the centre of the Cape winelands, south of Stellenbosch. The farming community forms part of the Greater Stellenbosch Municipal Area, which consists of nineteen wards. The farming community was included with three other farming communities, because of the relative small geographic size it occupies. Documented statistics for the community in any individual area are unavailable, but relevant statistics pertain to the broader community comprising the four areas ([REDACTED], personal communication, 6 May 2006).

The population of the abovementioned broader community consists of approximately 8937 people. Children between the ages of 1 and 19 years, account for 41.31% of the total population. Children are categorised into four main age groups, namely birth to 4 years of age, with a total of 930 children, 5 to 9 years of age, which consists of 950 children, 10 to 14 years of age, which consists of 922 children (the current study focuses on the age group of 10 to 12 year olds), and lastly 15 to 19 years of age, which consists of 890 children (L. Fourie, personal communication, 6 May 2006).

The largest population group in the farming community is the Coloured population group (74.36%), with 84.54% of the aforesaid group indicating Afrikaans as their first language. Of the economically active population, 88.24% earn between R1 and R1600 per month. With reference to educational levels of the farming community, 11.40% of persons over 20 years of age have no schooling, 9.58% of the community completed grade 7, and 7.68% of the community members completed grade 12. The majority of economic activities (54.62%) in the broader community (consisting of the four individual farming communities), are found in the agricultural sector ([REDACTED] personal communication, 6 May 2006).

The research was conducted at the local primary school, situated in the farming community. Permission was also granted by the principal of the primary school for the current study to be conducted during school hours and on the school premises. According to the principal (Personal communication, 15 May 2006), the primary school currently serves 361 children, of whom approximately 85% live on farms in the area, where their parents are employed as farm labourers.

1.5.7 Defining socioeconomic status

Broadly, Reber and Reber (2001) define socioeconomic status (SES) as “a rating of the status of an individual’s position in a stratified society based on a variety of social (e.g. family background, social class, education, occupation) and economic (income of family, of self) indices” (p. 692).

In the current study, the community is characterised as being of low socioeconomic status. A total of 88.24% of the economically active population earn between R1 and R1600 per month. Furthermore, 74.36% of the population in the community is coloured (██████████ personal communication, 6 May 2006). Burkhardt et al. (2003) report differences between black, coloured and white children with regard to the level of fear experienced. A possible explanation may be found in the difference in SES between the three groups, with white children generally being of a higher SES than the black and coloured children. For the current study it is important to note that the community in which the research was conducted is considered to be of a low SES.

CHAPTER 2

LITERATURE REVIEW

2.1 The construct of fear

The concept of fear has been defined and redefined numerous times. According to Marks (1987), one of the primary functions of fear is to enable an organism to avoid or escape from a threat. Moreover, Gullone (1999; 2000) suggests that the primary function of fear is to promote the survival of the specific organism. Fear is a normal, expected human emotion, and as such it is part of a child's normal development (Albano et al., 2002; Marks, 1987). Fear is considered an important part of human development. Fear is an emotion resulting from the perceived presence of real or expected danger, and in relevant situations it is considered normal (Marks, 1987).

2.2 Measuring fear

Various measuring instruments have been used to measure and explore childhood fears. These include the following:

- **Parental reports** (Bouldin & Pratt, 1998; Keller, 2001; Loxton, 2004; Muris & Merckelbach, 2000; Muris et al., 2001).
- **Observational investigations** (Jerslid & Holmes, 1935).
- **Fear list investigations** (Burkhardt, 2002; 2003; Burkhardt, Loxton et al., 2003; Loxton, 2004; Muris, Merckelbach & Collaris, 1997; Muris, Merckelbach, Meesters et al., 1997; Muris, Merckelbach, Mayer et al., 2000).
- **Interviews with children** (Bauer, 1976; Jerslid & Holmes, 1935; Muris, Merckelbach, Gadet et al., 2000; Muris, Merckelbach, Mayer et al., 2000)
- **Fear Survey Checklists** (Burnham & Gullone, 1997; Gullone & King, 1993; 1997; Muris, Merckelbach, Meesters et al., 1997; Scherer & Nakamura, 1968, Spence & McCathie, 1993)

Children's fears are often recorded by using a third party report, such as parents (**parental reports**). Findings from this method have however indicated that parents tend to underestimate the number of their children's fears, compared to the reported number of fears as expressed by their children (Keller, 2001; Muris et al., 2001). **Observational investigations** involve the studying of children in their natural environment (Jerslid & Holmes, 1935)

Another popular method of measuring childhood fears is **fear list investigations**. Children are merely asked to list or name their fear. Different studies call this method by different names, but the nature of the questions remains unchanged. Children are asked to respond to open questions about what they are afraid of. Questions include *What are you most afraid of?* and *How much are you afraid of?* Content is determined by all fears reported by participants. The number of fears is determined by adding of fears reported by participants, while intensity is indicated on a three point likert scale with 0 = *Not afraid*, 1 = *A little afraid* and 2 = *Very afraid*. Some studies call this method the Free Option Method (FOM) (Burkhardt, 2002; 2003; Muris, Merckelbach & Collaris, 1997; Muris, Merckelbach, Meesters et al., 1997, while others call this method the Fear List Method (FLM) (Burkhardt, Loxton et al., 2003).

Fear survey checklists are becoming one the most frequently used methods of measuring children's fears, the Fear Survey Schedule (FSS) being the most prominent of these (Gullone, 2000). Muris, Merckelbach, Meesters et al. (1997) state that the measuring instrument used most frequently to determine the content of childhood fears is the FSSC-R. Various studies have employed the FSSC-R and results without fail have indicated that the fear pertaining to physical injury and death is the most universally found childhood fear across various age groups. (Muris & Ollendick, 2002; Ollendick & King, 1994; Ollendick et al., 1985; Ollendick et al., 1989; Ollendick et al., 1991).

Critics of the FSSC-R (McCathie & Spence, 1991) have expressed concerns regarding the validity of the fear rank orders derived from employing the FSSC-R. According to McCathie and Spence (1991) it is questionable whether the FSSC-R measures actual fear. The results obtained when using the FSSC-R are indicative of the negative emotions accompanying the perceived occurrence of the various stimuli. Although McCathie and Spence (1991) were unable to scientifically verify their criticism against the FSSC-R, they remained adamant that the scientific community still does not know whether the results obtained from using the FSSC-R reflects the children's fear or the negative emotions accompanying the perceived occurrence of the various stimuli. Muris, Merckelbach, Meesters et al. (1997) conducted research pertaining to the fear rank order of childhood fears using two different measuring instruments,

the FSSC-R and the FOM. The FOM consists of asking the participants *What do you fear most?* The findings from the aforementioned study indicated that the fear rank order of fears obtained during research is dependant on the measuring instrument utilised. This finding is supported by a recent South African study conducted by Burkhardt, Loxton et al. (2003).

As various previous studies and their results will be discussed in this literature review, it is important to highlight the specific ways in which each of these methods indicate content, number and intensity of fears. The FSSC-R is a questionnaire consisting of 80 fear-provoking stimuli or situations. When using the FSSC-R, content is determined by the ten fears which are most often endorsed by the participants. Number of fears is determined by adding all the endorsements together to obtain a score between 0 and 80. Participants indicate intensity of fears on a likert-scale (1= *No fear*, 2 = *Some fear*, and 3 = *A lot of fear*). Intensity of fear is determined by adding the fears which participants reported as *A lot of fear* together to get a score between 0 and 240. The higher the total on the number or intensity, the higher number of fears and the higher level of intensity is experienced (Muris & Ollendick, 2002; Ollendick & King, 1994; Ollendick et al., 1989).

The Koala Fear Questionnaire (KFO) is a questionnaire consisting of 31 visual cues of fear-provoking stimuli or situations and is derived from the FSSC-R. Muris, Meesters et al. (2003) conducted a study to determine the validity of visual cues assessing fear. Drawings of koala bears were used in the abovementioned research, in which the bears were paired off with a 3-point scale which included *No fear*, *Some fear* and *A lot of fear*. For the aforementioned study, two separate versions of the revised version of the FSSC-R were used, the Koala version and a regular version. Results showed that the Koala version of the FSSC-R and the regular version are highly intercorrelated.

When using the KFQ, content, number and intensity is measured in a similar manner as the FSSC-R. Content is represented by the 31 items which could be endorsed by the participants. Number of fears is determined by adding all the endorsements together to obtain a score between 0 and 31. Participants indicate intensity of fears on a likert-scale (1= *No fear*, 2 = *A little fear*, and 3 = *A lot of fear*). Intensity of fear is determined by adding the fears which participants reported as a lot of fears together to get a score between 31 and 93. The higher the total on the number or intensity, the higher number of fears and the higher level of intensity is experienced (Muris, Meesters et al., 2003; Muris, Merckelbach et al., 2002).

For the purpose of the current study it is important to note that research results on the KFQ have only appeared in three peer reviewed articles (P. Muris, personal communication, 15 August 2007). All three these articles were included in the literature review of this thesis.

When reporting on the various aspects of fear it is, therefore, important to compare results from similar measuring instruments.

2.3 Aspects of fear

2.3.1 Content of fears

According to Marks (1987), the content of childhood fears varies both throughout the range of developmental phases, and with exposure to new situations. Various studies employed the FSSC-R and results without fail indicated that the fear pertaining to *Physical injury and death* is the most universally found childhood fear across age groups (Muris & Ollendick, 2002; Ollendick & King, 1994; Ollendick et al., 1985; Ollendick et al., 1989; Ollendick et al., 1991).

It is important to take cognisance of the FSSC-R, as various studies utilising the FSSC-R have repeatedly found similar results. According to the abovementioned studies, the following seven fears are always present under the top ten fears, (1) *Not being able to breathe*, (2) *Bombing attacks/being invaded*, (3) *Being hit by a car*, (4) *Fire/getting burned*, (5) *Falling from high places*, (6) *A burglar breaking into the house*, and (7) *Death/dying* (Ollendick & King, 1994; Ollendick et al., 1989; Ollendick et al., 1991).

Research utilising the FOM has consistently found different results in comparison with research utilising the FSSC-R. Muris, Merckelbach, Meesters et al. (1997) reported that fear of *Spiders, Death, War, Illness, The dark, Snakes, Burglars, Not being able to breathe, Ghosts, and Having my parents argue*, are the most common fears in children between the ages of 7 and 12 years. A similar study conducted by Muris, Merckelbach, Mayer et al. (2000) found that fear of *Spiders, Death/accident others, Death/accident self, Being kidnapped, The dark, Burglar breaking into the house, Home alone in the evening, Thunderstorms, Snakes, and Frightening movies*, are the most common fears in children between the ages of 8 and 13 years.

In a study employing the KFQ (Muris, Merckelbach & Luitjen, 2002) the top five items, with the percentage of children endorsing the item, were, *Getting lost* (73.9%), *Being hit by a car* (67.6%),

War (65.9%), *Burglar* (53.4%), *The death* (50.6%). Muris, Meesters et al. (2003) reported the top five fears as *Getting lost in a strange place* (62.0%), *Being hit by a car* (60.8%), *War* (55.8%), *A scary man who wants to kidnap you* (51.8%), and *A burglar breaking into your house* (50.5%).

In South Africa, normative research was conducted with regard to the content of preschoolers' expressed fears (Keller 2001; Loxton, 2004; Martalas, 1999). Research was also conducted regarding the content of expressed fears in middle childhood children (Burkhardt, 2002; Burkhardt, Loxton et al., 2003) and in children from a special population living in childrens' homes (Burkhardt, 2003). Burkhardt et al. employed two measuring instruments, namely the FSSC-R and the FOM to determine childhood fears. When utilising the FSSC-R, the most common fear category was the fear of *Danger and death* (64.3%). This finding is similar to previous research (Ollendick & King, 1994; Ollendick et al., 1985; Ollendick et al., 1989; Ollendick et al., 1991). When employing the FOM, Burkhardt, Loxton et al. reported that 45.5% of the children endorsed the fear of *Snakes*. Fears pertaining to animals constituted five of the top ten fears in the aforementioned study.

Burkhardt (2003), utilising the FSSC-R, reporting *Not being able to breathe* (68.80%) as the largest fear category. Other fears included *Bombing attack/being invaded* (66.67%), *Falling from high places* (66.67%), *Getting a shock from electricity* (66.67%), and *Bears and wolves* (65.96%). Burkhardt (2002), using the FOM, reported that 41.13% of children endorsed a fear of *Snakes* and that five of the top ten fears were fears of animals. Content referring to *Ghosts* constituted 30.50%, *Darkness/night* 15.60%, and *Strangers* 13.48%.

2.3.1.1 Content of fears and age pattern

Marks (1987) argues that childhood fears vary both throughout the range of developmental phases, as well as with exposure to new situations. The content of fears differs among the various age categories. Muris et al. (2002), using the KFQ, investigated fear amongst a sample of 4 to 12 year old children. Children in the aforementioned study were organised into age-categories, namely 4 to 7 years of age, 8 to 10 years of age, and 11 to 13 years of age. For children between the ages of 4 and 7, the top five fears and percentage of endorsement was *Being hit by a car* (76.6%), *Getting lost* (73.4%), *War* (67.2%), *Fire* (67.2%), and *Crocodiles* (62.5%). Between the ages of 8 and 10 years, the top five fears were *Getting lost* (77.1%), *War* (72.9%), *Being hit by a car* (68.6%), *Burglar* (55.7%), and *The death* (54.3%). For children between 11 and 13 years of age, the top five fears were *Getting lost* (69.0%), *Being hit by a car* (52.4%), *War* (52.4%), *Burglar* (40.5%), and *Child molester* (40.5%). Although

three of the top five were similar fear item, the percentage of endorsement by the children differed between age categories.

2.3.1.2 Content of fears and gender

According to research, gender plays an important role in the content of childhood fears. Previous research has reported gender differences regarding the content of middle childhood fears (Burkhardt, 2003; Gullone & King, 1993; Muris, Bodden et al., 2003; Muris, Merckelbach, Meesters et al., 1997).

According to results from the FSSC-R in a study by Muris, Merckelbach and Collaris (1997) the top five fears for boys between the ages of 9 and 13 years ($M = 10.5$, $SD = 1.0$) were *Not being able to breathe* (63.5%), *Bombing attacks/being invaded* (56.8%), *Getting a serious illness* (54.1%), *Being hit by a car or truck* (45.9%), and *Fire/getting burned* (35.1%). For girls in the same age category, the top five fears were *Not being able to breathe* (74.5%), *Being hit by a car or truck* (65.5%), *Getting a serious illness* (63.6%), *Bombing attacks/being invaded* (58.2%), and *Fire/getting burned* (58.2%). Although the top five fear items were similar, there were differences in rank order and percentages of endorsement.

Muris, Merckelbach and Luitjen (2002), using the KFQ, reported the top five fears and percentage of endorsement for boys between the ages of 4 and 13 years as *Getting lost* (78.3%), *War* (67.5%), *Being hit by a car* (65.1%), *Fire* (53.0%), and *Burglar* (49.4%). For girls between the ages of 4 and 13 years the top five fears were *Getting lost* (69.9%), *Being hit by a car* (69.9%), *War* (64.5%), *Burglar* (57.0%), and *Child molester* (57.0%). Four of the top five fears were similar for both genders, but rank order and percentages of endorsement differed.

With regard to the content of middle childhood fears in the South African context, Burkhardt (2002) found in a study of the fears of a normative sample of 404 South African children gender differences with regard to the content of fears. Among the top ten most common fears, boys endorsed *Death or dead people*, *Bears and wolves* and the category of fears relating to *Fire-getting burned*, while girls endorsed fears of *A burglar breaking into the house*, *Snakes* and *Guns*. Burkhardt (2003) reported that for middle childhood children from a children's home, when using the FOM to determine the content of fears, the two most feared items, the fear of *Snakes* and *Ghosts*, were the same for boys (35.71% and 27.14%, respectively) and girls (81.69% and 33.80%, respectively) alike. Furthermore, when using the FSSC-R to determine the content of fears, Burkhardt (2003) reported that gender differences were also

evident, with the two fears endorsed most by boys being that of animals, *Bears and wolves* specifically (58.57%), and *Receiving an electrical shock* (58.57%), while the fears most endorsed by girls were *Falling from high places* (84.51%) and *Not being able to breathe* (78.87%). Overall, gender differences were reported for the aforementioned study.

2.3.1.3 Content of fears and socioeconomic status

According to Loxton (2004) there are minor differences regarding content of fears between children (between the ages of 5 and 7 years) from various socioeconomic status groups. In children from the low SES group, the top three fears were *Wild animals* (49.2%), *Domestic animals* (10.0%), and *Real people* (9.2%). The top three fears of children from the middle SES group were *Wild animals* (33.7%), *Real people* (13.7%), and *Domestic animals* (11.6%). Children from the upper SES group reported *Wild animals* (33.8%), *Dark/night* (13.2%) and *Fantasy people* (12.7%) as their top three fears.

2.3.2 Number of fears

When investigating the number of fears, it is important to compare similar measuring instruments. Ollendick, King and Frary (1989), using the FSSC-R, measured the number of expressed fears from children from three different age categories. The aforementioned study reported that children between the ages of 11 and 13 years expressed an average of 13 fears. In Ollendick, Matson and Helsel (1985), children between the ages of 10 and 12 years reported an average of 13.64 fears on the FSSC-R. In a comparative South African study, the FSSC-R was also utilised in measuring the number of childhood fears, with children expressing an average of 29.96 fears (Burkhardt, Loxton et al. 2003).

Research pertaining to the FOM was also conducted in the South African context with regard to the number of expressed fears in middle childhood children (Burkhardt, Loxton et al. 2003) and in children from a special population living in children's homes (Burkhardt, 2003). Burkhardt, Loxton et al. reported that children endorsed an average of 3.6 fears. Burkhardt (2003) reported that middle childhood children expressed an average of 3.97 fears.

For the purpose of the current study, it is important to note that there is no information available on the KFQ regarding number of middle childhood fears in peer reviewed articles (P. Muris, personal communication, 15 August 2007).

2.3.2.1 Number of fears and age pattern

Ollendick, King and Frary (1989), using the FSSC-R, measured the number of expressed fears from children from three different age categories. The aforementioned study reported that children between the ages of 7 and 10 years expressed an average of 17 fears, children between the ages of 11 and 13 years expressed an average of 13 fears, while 14-to-16-year-olds expressed an average of 12 fears. In a similar study, Gullone and King (1993), using the Fear Survey Schedule for Children and Adolescents-II (FSSC-II), also measured the number of fears as expressed by children from three different age categories. The FSSC-II is simply an earlier version of the FSSC-R. The aforementioned study reported that children between the ages of 7 and 10 years expressed an average of 19.76 fears, children between the ages of 11 and 14 years expressed an average of 15.52 fears, while 15-to-18-year-olds expressed an average of 12.70 fears. These findings support previous research (Bouldin & Pratt, 1998; Ollendick et al., 1985) which indicated that the number of fears expressed by children decreases as the child nears adolescence.

2.3.2.2 Number of fears and gender

Despite different measuring instruments, certain research has reported gender differences regarding the number of fears, with girls reporting a higher number of fears than boys (Gullone & King, 1993; Hall, 1897; Muris, Merckelbach, Meesters et al., 1997; Ollendick et al., 1989; Shore & Rapport, 1998), while others found no significant differences between gender (Burkhardt, Loxton et al., 2003; Martalas, 1999). According to research by Ollendick et al. (1989), boys reported an average of 10 fears and girls an average of 18 fears on the FSSC-R. Gullone and King (1993) reported that boys expressed an average of 12.28 fears, while girls expressed an average of 20.24 fears on the FSSC-II.

With regard to the number of middle childhood fears in the South African context, Burkhardt, Loxton et al. (2003) reported that although girls express a higher number of fears than boys, no significant differences were found. Burkhardt (2003) reported that when using the FOM to determine the number of fears experienced by children, girls expressed a higher number of fears ($M=4.94$) when compared with the number of fears expressed by boys ($M=2.99$). According to the results of the FSSC-R, which was also employed to determine the number of fears reported by children, Burkhardt (2003) reported significant gender differences, with girls expressing a much higher number of fears ($M=36.79$) than boys ($M=23.04$).

2.3.2.3 Number of fears and socioeconomic status

In Burkhardt's (2002) South African cross-cultural study, the sample of 8-to-12-year old children were divided into four SES categories, namely, low SES, low to medium SES, medium SES, and medium to high SES. Using the FSSC-R, Burkhardt (2002) reported differences in the average number of expressed fears between the various SES categories. These findings indicate that children from low SES categories experience a higher number of fears, while children from higher SES categories experience less fears.

2.3.3 Intensity of fears

For the purpose of the current study it is important to note that intensity of fear (Burnham & Gullone, 1997; Gullone & King, 1993; Ollendick et al., 1989) or alternatively, level of fear (Burkhardt, 2003; Muris et al., 2002; Muris, Meesters et al., 2003;) is used in the literature. Ollendick et al. (1985) reported that children between the ages of 10 and 12 years scored a mean intensity level of 139.12 on the FSSC-R, indicative of a medium intensity level. Findings from a study by Gullone and King (1993) indicated that children aged 7 to 10 scored 139.10 on the FSSC-II, and children between 11 and 13 years scored slightly lower at 131.16.

In a recent study Muris et al. (2002) measured the level or intensity of fears among a sample of 4 to 12 year old children. Two measuring instruments were used, namely an Anxiety Interview and the KFQ. During the Anxiety Interview children were asked to rate their level of fearfulness, using a likert-scale (1 = *Not scared*, 2 = *A little scared*, 3 = *Very scared*). The study found that children reported their level of fearfulness as 2.4, indicative of a medium intensity of fears. During the KFQ, children also indicate their level of fearfulness on a similar likert-scale (1= *No fear*, 2 = *Some fear*, 3 = *A lot of fear*). Intensity of fears is then calculated by adding the scores from all the stimuli with a possible range of 31 to 93. The higher the score, the higher the level or intensity of the fears expressed. The study found that children reported their level of fearfulness as 57.6, indicative of a medium intensity of fears. Muris (2002) reported similar findings, with a mean score of 53.2 for children between the ages of 10 and 14 years on the KFQ.

There is a dearth of research focusing on the intensity of fears expressed by middle childhood children in the South African context. In a recent study, Burkhardt (2003) investigated the level of fears among middle childhood children living in a specific context, namely a children's home, and used the FSSC-R to assess the childrens' levels of fears. Findings from the aforementioned study indicated that of a

possible total score of 240 (the higher the score, the higher the levels of fear) children displayed an average of 158.21 fears, indicating comparatively high levels of fear.

2.3.3.1 Intensity of fears and age pattern

As with the number of expressed fears, the intensity of fears tends to decrease as the child nears adolescence (Burnham & Gullone, 1997). Ollendick et al. (1989) measured the intensity of fears of children ranging from the ages of 7 to 16 years, using the FSSC-R. The aforementioned study reported the level of fearfulness of children between the ages of 7 and 10 years as 138.83, children between the ages of 11 and 13 years as 133.44, and children between the ages of 14 to 16 years as 129.46, indicating a decrease of intensity of fears with the increase in age. In a more recent study, Muris et al. (2002) measured the intensity of fears in children ranging from 4 to 13 years of age, using the KFQ. This study found that children between the ages of 4 and 7 years reported a higher level of fearfulness (60.6), than 8 to 10 years old children (57.9) and 11 to 13 year old children (52.5). These findings confirm that the level or intensity of childhood fears decreases as the child nears adolescence.

However, some research has found contradicting results. Muris (2002), using the KFQ, reported that children between 4 and 6 years had a mean score of 46.0, children between 7 and 9 years (53.8) and 10 to 14 year old children (53.2), which indicates a small increase from between the age groups of 4 to 6 and 7 to 9.

2.3.3.2 Intensity of fears and gender

Previous research reported gender differences regarding the intensity of fears, with girls reporting a higher level of fearfulness than boys (Burnham & Gullone, 1997; Ginsburg & Silverman, 2000; Gullone & King, 1993; King & Gullone, 1992; Muris, Bodden et al., 2003; Muris, Schmidt & Merckelbach, 1999; Zohar & Felz, 2001). According to research by Gullone and King (1993), the intensity of fears reported by boys was 121.36, while the intensity of fears reported by girls was 142.72. In a similar study conducted by Muris, Merckelbach, Meesters et al. (1997) girls reported a significantly higher level of fearfulness than boys, 137.3 and 120.0, respectively.

Muris, Meesters et al. (2003) reported that in the age group 10 to 13 years, girls expressed a higher level of fearfulness than boys, 51.7 and 57.3 respectively, on the KFQ. Similar results were obtained by Muris, Merckelbach and Collaris (2001) who reported that girls scored 59.8 on the KFQ, whereas boys

scored 55.1. Muris (2002) reported that, in the age group of 10 to 14 years, boys had a mean score of 47.2 and girls 57.9 on the KFQ.

With regard to the intensity of middle childhood fears in the South African context, Burkhardt (2002) reported that girls experienced a higher level of intensity of fears than boys. Burkhardt (2003) reported a significantly higher level of intensity of fears for girls ($M=174.45$) than for boys ($M=141.73$).

A possible explanation for gender differences is that gender role orientation and gender expectations may influence the expressed fears of children (Ginsburg & Silverman, 2000). According to Bem (cited in Ginsburg & Silverman, 2000), the expression of fears and fearfulness is associated to a larger extent with female gender, and as such it is more accepted or even encouraged in girls. Gullone and King (1993) offer a similar explanation. A possible answer lies in the fear items that differ between boys and girls. The differences could largely be ascribed to gender stereotypes and social learning, and not inherent gender differences. It is unlikely that a boy would express fears pertaining to for example “mice, spiders or scary dreams”, when he is in the company of his peers (Gullone & King, 1993).

2.3.3.3 Intensity of fears and socioeconomic status

Burkhardt (2002), employing the FSSC-R, reported differences in intensity of fears between the various SES categories, indicating that children from low SES categories experience a higher level of fear than children from a higher SES category.

2.4 Parental perceptions of children’s fears

Parental perceptions of the fears expressed and indicated by their children are important in understanding the concept of childhood fears in a specific context. Lapouse and Monk (1959) studied fears and worries in a representative sample of children between the ages of 6 and 12 years. Interesting findings regarding parental perceptions were found. With regard to content of childhood fears, Lapouse and Monk (1959) found that mothers were not always accurate in reporting the content of their childrens' fears. The percentage of agreement on the content of fears varied between individual fear items. On certain items the percentage of agreement were high, for example, *People like postmen, policemen, teachers and tradesmen* (93%), *Going to school* (87%) and *Crossing the street alone*. For other items, the percentage of agreement was much lower. These include *Germs* (44%), *Strangers* (43%) and *Being kidnapped* (41%).

Similar underestimates regarding the content of fears were made in the South African context. Keller (2001) investigated self-reported fears in a sample of preschool children from a low SES area. Children reported the fear of *Animals* as the largest fear category (57.24%), with *Fantasy people* as the second largest category (19.31%). In contrast, the participants' parents indicated *Other fears* as the largest fear category (30.56%), with *Dark/night* as the second largest category (23.61%).

Various studies revealed that parents underestimate the number of their children's fears when compared with the reported fears expressed by their children (Jones & Borgers, 1988; Keller, 2001; Muris, Merckelbach et al., 2001). Jones and Borgers (1988) found a significant difference between parental perceptions regarding their children's fears and the actual fears as expressed by their children. Muris et al. (2001) reported that although 73.3% of children between the ages of 4 and 12 years of age reported having fears, parents indicated that a mere 34.0% of their children experienced fears. The aforementioned finding indicates a vast underestimate of children's fears by parents. Lapouse and Monk (1959) found that mothers tended to underreport the number of fears their children experienced by 41%.

In a South African study, Keller (2001) found that children expressed an average of 2.9 fears in preschool children, ranging between one and ten fears. Parents reported an average of 1.44 fears, ranging between one and four fears. When parental reports are compared with self-reports of the children, it seems to indicate that parents do not accurately perceive or report their children's fears. As such, it is important to collect data pertaining to parental perceptions regarding content, number and intensity of fears, as this information will emphasise the possible discrepancies between the actual content, number and intensity of fears indicated by children, and the assumed content, number and intensity of fears which parents believe their children may have.

CHAPTER 3

THEORETICAL FRAMEWORK

According to Reber and Reber (2001), theory could be defined as “a general principle or a collection of interrelated general principles that is put forward as an explanation of a set of known facts and empirical findings” (p. 746). For the current study, theory plays an important role in understanding concepts and phenomena relating to human development and as such plays a crucial role in understanding fear. According to the researcher, fear could be seen as a natural part of human development, which may arise spontaneously at a certain interval of development.

For the purpose of the current study, a number of relevant theories that offer explanations of middle childhood fear will be investigated. Firstly, the ecological systems theory will be discussed. The ecological systems theory describes the child in relation to various systems and in the context of the current study a farming community setting. Secondly, certain developmental theories that are relevant to the current study will be examined. A developmental theory can be defined as “a systematic statement of principles and generalizations that provides a coherent framework for studying and explaining development” (Berger, 2000, p.37). These include Erikson’s psychosocial theory, the cognitive-developmental theory (Piaget) and the social learning theory.

3.1 Bronfenbrenner’s ecological systems theory

Bronfenbrenner (1979) postulated that human development could be seen as the result of the interrelationship amongst the physical environment and the developing person in this environment. When analysing human development, it is important to take into account the developing person, the physical environment in which the person functions, and the growing relationship between these contexts (Bronfenbrenner). According to Bronfenbrenner human development may be analysed by focusing on three aspects, namely firstly, the individual and his/her perspective on the environment; secondly, the social and physical environment around the individual and thirdly, the interrelationship between the environment and the individual.

Applied to Bronfenbrenner’s ecological systems theory childrens' fears can thus be influenced by their interaction with the various systems. Therefore, as children function and develop in a physical environment, it is important to obtain a better understanding of the child in the context of this physical environment.

According to Craig (1996), Bronfenbrenner's ecological systems model is "the most influential model of human development in use today" (p.12). Bronfenbrenner states that the ecological environment consists of four interrelated concentric systems, known as the microsystem (the immediate environment), the mesosystem (the interrelationship between various aspects of the microsystem), the exosystem (outside of the child's immediate environment, but still influential in the development of the child) and the macrosystem (society and cultural aspects), respectively. According to Craig (1996) there is a persistent two-way interaction between the child and the environment across all four systems. As children develop and mature, they are influenced by their environment while also interacting and causing restructuring in this environment.

The various settings that form the child's **microsystem** are the home environment, the school environment, and the after-school environment. Therefore, the microsystem is the immediate physical and social environment in which the child functions on a daily basis. These various environments have a direct influence on the child's development (Bronfenbrenner, 1979; Craig, 1996; Reifsnider et al., 2005). In this study, the microsystem of the children consists mainly of the home environment (the various farms on which they live), the primary school that the child attends (the farm school where the research was conducted), and the after-school environment (again the various farms where they live). The population group in the microsystem is mostly coloured (74.36%) and Afrikaans speaking (84.54%), with 88.24% earning between R1 and R1600 per month (██████████ personal communication, 6 May 2006). The primary school has 361 children enrolled, of whom approximately 85% live on farms in the area where their parents are employed as farm labourers (The principal, personal communication, 15 May 2006).

The **mesosystem** links all the various microsystems (family, friends and work) into one coherent system. The mesosystem develops and grows each time the developing person participates in a new social setting. The mesosystem of the child consists of the relationship between the home, school and neighbourhood peers. The development of the child is, therefore, influenced by the interaction between the various microsystems (Bronfenbrenner, 1979; Craig, 1996; Reifsnider et al., 2005). For the present study the mesosystem will primarily consist of the relationships of the children with their parents, friends and teachers.

The **exosystem** is defined by Bronfenbrenner (1979) as "one or more settings that do not involve the developing person as an active participants, but in which events occur that effect, or are affected by,

what happens in the setting containing the developing person” (p.25). The exosystem, which is more distant and removed than the abovementioned systems, does not affect the person directly. However, the exosystem indirectly affects the person as it influences the interactions of people close to the individual. Relevant examples of the exosystem of the child would be the work environment of the parent, the social interactions of older siblings or the activities of local authorities. The occupation of a child’s parents serves as a relevant example of how changes in one setting, in which a child is not directly involved, will nonetheless influence the development of the child. If the child’s parent or parents become unemployed, the effect of the unemployment will influence the development of the child (Bronfenbrenner, 1979; Craig, 1996; Reifsnider et al., 2005). For the present study the exosystem will comprise mainly of the type of relationships their parents and friends have with other parts of the microsystems. As most parents work on nearby farms, the relationship between the parents and the farmer would be very important. When the ecological systems theory is applied in this context, joblessness and eviction from the farms could have a serious and detrimental effect on the development of the child.

According to Bronfenbrenner’s ecological systems model the **macrosystem** consists of cultural values, customs and laws of the society. In comparison with the abovementioned systems, the macrosystem does not consist of specific settings, however, it influences all the other systems. Changes at the macrosystem level will have an influence on the microsystem, mesosystem and exosystem (Bronfenbrenner, 1979; Craig, 1996). National legislation and policies create a ripple effect which influences all levels of society, from the national level to the local level. In the case of children, any legislation regarding children and child welfare would indirectly impact the social setting in which the child functions. A relevant example for this study would be that any changes in agricultural legislation would influence the farming community through possible job losses, which in turn would impact the home and social environment of the child, which would then have a direct effect on the development of the child (Bronfenbrenner, 1979; Craig, 1996; Reifsnider et al., 2005).

Thus, according to Bronfenbrenner (1979), the development of the individual has to be seen in retrospect and in terms of the interaction between the social and physical environment, in which the person functions on a daily basis, and the growing individual. Therefore, in order to understand the development of the child, it is of vital importance to have a clear understanding of the various social and physical settings and environments that constitute the world of the child (Bronfenbrenner, 1979).

3.2 Developmental theories

3.2.1 Erikson's psychosocial theory

Erikson's psychosocial theory is frequently used to explain human development according to eight distinct stages (Erikson, 1963). Erikson postulated that personality and identity are developed through the resolution of conflict at certain important time periods in development. Conflict is generated through the interaction of the individual with the environment. Each stage contains a psychosocial crisis and two opposite poles, one positive and one negative. In order for this crisis to be resolved, the individual needs to achieve a synthesis of these two opposing poles. (Erikson, 1963; Meyer & Van Ede, 2001). The various stages of this theory are organised around specific age categories. The fourth stage of development (industry versus inferiority) is most applicable to the current study. This stage starts at approximately the age of 6 and lasts until puberty. In this stage Erikson (1963) states that the child is preparing for entry into life, with school comprising a large percentage of his or her life. The child would be exposed to many new experiences and aspects of society, such a technology, media and literature.

The principal task of the child during this stage is to master skills needed for adulthood. When the child is able to master the skills, a sense of industry is developed. This allows the child to place him or herself in society among other people. If the child is unable to develop industry, a sense of inferiority is developed. This leads to a loss of confidence in abilities and skills by the child, which are needed to become a productive member of society. When the child successfully achieves a synthesis of industry and inferiority, competence is developed (Erikson, 1963; Hergenbahn & Olson, 2003; Meyer & Van Ede, 2001). According to Erikson (cited in Craig, 1996) any unresolved conflicts could lead to the development of fearfulness and anxiety.

The ability to read properly is an important life skill. However, certain communities in the broader South African population struggle with high levels of illiteracy or inadequate education (Statistics South Africa, 2003). According to Statistics South Africa (2003) 8.25% of the coloured population 20 years of age and older have no form of schooling, 18.37% have some form of primary school, and 9.83% only completed primary school, giving a total of 36.45% having received either no or inadequate schooling. In the context of the current study, only 7.68% of the specific farming community over the age of 20 completed grade 12 ([REDACTED] personal communication, 6 May 2006). This inability to read properly could potentially lead to the development of inferiority and the development of fearfulness or anxiety.

3.2.2 Cognitive-developmental theory

Cognitive-developmental theory emphasises cognitive structures, organised units and patterns of thought as crucial elements in childhood development and in the interpretation of experiences. The best known and influential of these theories is Piaget's theory (Bukatko & Daehler, 1998). Piaget divided human development into four stages, namely the sensorimotor stage (first 2 years of life), the preoperational stage (from age 2 till 7), the concrete operational stage (age 7 to age 12), and the formal stage (adolescence). During each stage a new level of thinking appears, each more complex than the previous one. From this the child gains more complicated knowledge that enables the child to better respond to the environment (Bukatko & Daehler, 1998; Meyer & Van Ede, 2001, Piaget, 1974; Pulaski, 1971). The stages develop gradually, with each stage integrating and incorporating previous levels of thinking (Bukatko & Daehler, 1998; Piaget, 1971). The concrete operational stage is the stage most applicable to the current study. In this stage the child is able to understand and apply logical operations, which enables the child to interpret experiences objectively and rationally (Berger, 2000).

According to Piaget (1971) cognitive development occurs as the individual interacts with the environment. Four factors play an important role in this interaction, namely maturation (the nervous and endocrine systems develop according to a hereditary blueprint), experience and practice (children are exposed to new experiences and have to practice new skills), social interaction and transmission (children learn through their interaction with parents, teachers and peers), and equilibration (children's self-motivated attempts to learn and solve problems) (Meyer & Van Ede, 2001; Piaget, 1971; Piaget & Inhelder, 1969).

Cognitive structures or schemes are another important concept in development. Schemes are "mental representations of a behavioural pattern of various actions" (Meyer & Van Ede, 2001, p.75). Two mechanisms, namely assimilation and accommodation, play an important role in development (Gruber & Vonèche, 1977; Meyer & Van Ede, 2001). Assimilation refers to new information from the environment being absorbed into the individual's schemes without altering the schemes. Accommodation occurs when the schemes are altered in order to absorb the new information from the environment (Meyer & Van Ede, 2001; Piaget, 1971; 1974; Piaget & Inhelder, 1969).

According to Piaget, when a person's thought and perceptions regarding the environment correspond with his or her experiences, he or she obtains a state of mental balance, known as cognitive equilibrium. However, when experiences and perceptions are in conflict with each other, it leads to

cognitive disequilibrium, which in turn leads to the experiencing of distress (Berger, 2000). Many psychologists agree that distress and stressor can then potentially lead to the development of fear (Botha, Van Ede, Louw, Louw & Ferns, 2001).

3.3 Social learning theory

According to the social learning theory, learning takes place through the observation and imitation of others, called models (Bandura, 1977; Bukatko & Daehler, 1998) and also through direct experiences (Bandura, 1977). According to the Social Learning theory, fear is a learned response. Through interaction with the environment, children are exposed to new experiences. Environmental factors for the development of fear are exposure to negative stimuli (such as scary images in the media). Children may also develop fears as a result of a direct experience they may have had (Botha et al., 2001). Therefore, children could develop fears in one of three manners: firstly, through observing others, secondly, through exposure to negative stimuli, and thirdly, through direct experience (Bandura, 1977; Botha et al., 2001; Bukatko & Daehler, 1998).

When these three possible sources of fears are considered, they show a remarkable resemblance to Rachman's three pathways to fear theory. Rachman (1977; 1990) proposed three distinct pathways to the acquisition of fears. The first pathway is conditioning, the second pathway is vicarious acquisition or modelling and the third pathway is the transmission of information/instruction. Conditioning includes the direct exposure to the specific fear-provoking stimuli. Normal situations or stimuli, which do not provoke fear or fearfulness, are connected to a specific fear or fear-provoking situation or stimuli. This results in the neutral situation or stimuli developing fear-provoking properties. Vicarious acquisition includes the direct or indirect observation of individuals exhibiting fear and fear reactions. Misinterpretation of information includes exposure to negative information pertaining to various stimuli (Rachman, 1977; 1990).

Rachman's (1977) three pathways to fear theory serves as a theoretical perspective for understanding middle childhood fears. In the context of the current study, conditioning, vicarious acquisition or modelling, and transmission of information/instruction play a vital role in understanding fear in the specific context of the farming community. The first pathway, i.e. conditioning, pertains to all the experiences of the child in the community. As the child engages with various persons or situations, the child would be exposed to fear-provoking stimuli. This may happen in the home environment (the farm on which the child lives), the primary school the child attends (the farm school), and the after-

school environment (also the farm on which the child lives). A large percentage of the South African population still uses fire (wood, coal, paraffin or gas) as the primary source of cooking and heating, 47.2% and 46.9% respectively (Statistics South Africa, 2003). A negative experience with fire may lead to the development of fear pertaining to fire or getting burned.

In the context of the current study, the second pathway of vicarious acquisition or modelling refers to the direct or indirect observation of individuals exhibiting fear and fear reactions. Parents, friends and teachers all have the potential to serve as a source of modelling or observation to the child. During everyday interaction, the child would observe behaviour from a variety of sources, including parents, friends and teachers. The child would then incorporate these observations into his or her own frame of reference, with the acquisition of fear as a consequence. According to Broadley (1983) South Africa has a wide variety of snake species of which many are poisonous. Also, the farming community is situated in the winelands and is surrounded by hills in which snakes are commonly found. Negative reactions towards certain objects (for example, snakes) could serve as a model for the child to develop a fear in this regard.

The third pathway, transmission of information/instruction, pertains to negative information about various stimuli. The child has a variety of sources of negative information regarding stimuli. Parents, friends, the media are only some of the sources which bombard the child with information. Negative information regarding stimuli is presented to the child. A possible consequence of this negative information is the development of fears. Negative media reports on violence may lead to the development of crime-related fears.

Rachman's (1977) three pathways to fear theory, therefore, serve as a theoretical perspective for understanding how fears could originate, an aspect of middle childhood fear in the context of the current study (Du Plessis, 2006).

CHAPTER 4

METHODOLOGY

The aim of the current study was to address four research questions: (1) What are the content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region? (2) Are there any differences between the KFQ scores without visual cues (KFQ1) and the KFQ scores with visual cues (KFQ2)? (3) Are there gender differences regarding content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region? (4) Are there differences regarding content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region as reported in child reports and parental reports?

4.1 Research design

The nature of the current study was exploratory and descriptive. A cross-sectional design was implemented. The FLM and KFQ1 were administered to the children in the third school term of the 2006 academic year. After a period of one month, the KFQ2 was administered in the fourth school term of the 2006 academic year. The Parental Biographical Questionnaire (PBQ) was completed on a single occasion by the parents of the children.

4.2 Participants

The study population consisted of 84 middle childhood children (43 boys and 41 girls) between the ages of 10 and 12 years, recruited from a local primary school in the Stellenbosch region. Of the 84 children, the parents of only 56 participated in the study. The intended sample size was 112 children, but consent was only obtained for 84. Parental permission and consent to collect data from their children were obtained prior to the administration of the measures to determine childhood fears. Written assent was also obtained from all the children. A convenience sample of participants was recruited, where sampling was made purely on the basis of convenience, and not on the representativeness of the sample. Criticisms were viewed against the convenience sampling method, as it is felt that the sample was recruited randomly. However, in practice, most experimental psychology and related research which uses human subjects, utilises samples that are a convenient subset of the population (Reber & Reber, 2001). For this study, the children attending the school served as a convenient subset of the larger population.

The medium of instruction of the school is Afrikaans, as is the home language of the sample, as 84.54% of the community indicated Afrikaans as their first language ([REDACTED] personal communication, 6 May 2006). For the abovementioned reasons, the questionnaire was presented in Afrikaans, as was all correspondence directed to the parents. A professional translator translated the KFQ into Afrikaans from the original Dutch version, with Professor [REDACTED]'s permission ([REDACTED], personal communication, December 2005).

4.3 Measuring instruments

4.3.1 Child fear measures

Two measuring instruments were used to assess childrens' fears, namely the FLM and the KFQ. Two separate versions of the KFQ were used. The first version, KFQ1, did not employ visual cues, while the second version, KFQ2, did employ visual cues.

4.3.1.1 Fear List Method (FLM)

The FLM is a self-constructed semi-structured interview, which enables children to compile a list of their expressed fears. Open-ended questions are structured and formatted in such a manner that they enable the child to respond in a variety of ways and thus responses are not restricted to the specific question being asked (Muris, Merckelbach & Collaris, 1997; Muris, Merckelbach, Meesters et al., 1997). The questions used in this study were based on the questions in the studies conducted by Burkhardt (2003), Burkhardt, Loxton et al. (2003); and Muris, Merckelbach, Meesters et al. (1997). These questions are directed at the content, number and intensity of fears, as experienced by the children. The questions are: (1) *what do you fear most?*, (2) *what else do you fear?* and (3) *how much do you fear these things?*

The responses were then organised into 10 existing fear categories for content, namely, *Wild animals*, *Domestic animals*, *Fantasy animals*, *Insects*, *Real people*, *Fantasy people*, *Dark/night*, *School*, *Crime/violence*, and *Other*. The fear categories were based on categories used in previous South African studies (Burkhardt, 2002; 2003; Burkhardt, Loxton et al. 2003; Keller 2001; Loxton, 2004; Martalas, 1999) in order to cater for comparative results.

For the purpose of this study, content of fears measured by the FLM was determined by organising the 10 fear categories according to percentages, thus forming the fear rank order. According to the FLM the number of fears as expressed by the children refers to the total number of items expressed by the

children (Burkhardt, 2003; Burkhardt, Loxton et al., 2003). The intensity of fears as expressed by the children was measured on the FLM by asking the children to list their fears and to indicate them on a three point scale (*Not afraid*, *A little afraid* and *Very afraid*), (Burkhardt, 2003; Burkhardt, Loxton et al., 2003). A mean score was then calculated by allocating scores to the three options (*Not afraid* = 1, *A little afraid* = 2, and *Very afraid* = 3). This was done in order to add intensity to the fear profile (when measured by the LFM) of the middle childhood child in the South African context.

4.3.1.2 Koala Fear Questionnaire (KFQ)

The KFQ (derived from the FSSC-R) is a standardised self-report scale, used to determine the content, number of fears and levels of fear intensity among children between the ages of 4 and 12 years (Muris, Meesters et al., 2003). The KFQ consists of 31 fear-creating items. All 31 items are presented in the form of pictures or drawings. The 31 items are also accompanied by a visual cue of three drawings of Koala bears representing the three levels of intensity of the fears which they may experience. The first of three pictures of the Koala bears indicates *No fear*, the second Koala bear indicates *Some fear*, and the third Koala bear indicates *A lot of fear*. The total score is calculated by adding all the individual item scores together (*No fear* = 1, *Some fear* = 2, and *A lot of fear* = 3) to obtain a score between 31 and 93 (Muris, Meesters et al.). The child may then use the visual representation of the Koala bears to indicate the level of intensity of the fears with which he or she experiences the various stimuli and situations.

A pilot study was conducted by Muris, Meesters et al. (2003) to determine the validity of visual scales for assessing fear. Drawings of Koala bears were used in the abovementioned research, in which the bears were paired off with a 3-point scale which included *No fear*, *Some fear* and *A lot of fear*. For the aforementioned study, two separate versions of the revised version of the FSSC-R were used, called the Koala version and a regular version. The sample was divided into two groups, with one group completing the regular version first, whilst the second group completed the Koala version first. After a period of two weeks, group one completed the Koala version and group two completed the regular version (Muris, Meesters et al.). The pilot study found that the Koala version of the FSSC-R and the regular version are highly intercorrelated. Both versions of the FSSC-R yield highly similar results and these findings support the validity of the Koala bears as a visual scale for assessing fear in children (Muris, Meesters et al.).

Although the FSSC-R is used more frequently (Muris, Merckelbach, Meesters et al., 1997), the KFQ is considered a more child-friendly questionnaire than the FSSC-R, as the FSSC-R consists of 80 items, whilst the KFQ contains only 31 items. Furthermore, the KFQ consist of pictures or drawings depicting the various items. As a result, it is reported that the KFQ is more easily administered to children and is better manageable for children (Muris, Meesters et al., 2003). Studies have shown that the KFQ is a reliable scale that has good quality internal consistency, validity and reliability (Muris, 2002; Muris et al., 2002; Muris, Meesters et al., 2003).

In the current study, children had the opportunity to rate their level of fearfulness by using the visual representation of Koala bears expressing three levels of fear intensity (*No fear, Some fear, and A lot of fear*) (Muris, Meesters et al., 2003). For the purpose of the current study, content of fear, as measured by the KFQ, related to the 31 items. Percentages of children endorsing a specific item was calculated, and these percentages was used to compile the fear rank order. Number of fears refers to the sum of all items of which the children indicated *A lot of fear*. Intensity of fear refers to the total score (between 31 and 93) obtained from individual items. It is important to note that although the pictures of the Koala bears are accompanied by the wording of *No fear, Some fear, and A lot of fear*, the 31-item list used in conjunction with the pictures of the Koala bears contain a slightly different wording. It uses the words *Not afraid, A little afraid, and Very afraid*. In the reporting of results from this study, the terms *Not afraid, A little afraid, and Very afraid* will be used.

As research question two pertains to possible differences between the results of the KFQ without visual cues (KFQ1) and the KFQ with visual cues (KFQ2), the KFQ was administered on two separate occasions with at least one month separating the two administrations. The first administration of the KFQ was not accompanied by visual cues or representations, and will be referred to as the KFQ1. The second administration of the KFQ was accompanied by the visual cues or representations, and will be referred to the KFQ2.

4.3.2 Parental Biographical Questionnaire (PBQ)

To cater for comparison between the different aspects of fears as reported by children and by their parents, a self-constructed questionnaire, based on research conducted by Loxton (2004), was administered to the parents to obtain biographical information on the children, and to assess parents' perceptions of their childrens' fears. The aspect of middle childhood fears (content, number and intensity) was calculated in the same manner as the FLM. This comparison is will add important

information to the fear profile of middle childhood children living in a South African farming community as it would provide two separate reports on fears emanating from the same geographical context.

4.4 Procedure

The study took place in three stages.

Stage one included obtaining permission to proceed with the study from both the Western Cape Education Department, as well as the Ethics Committee of the University of Stellenbosch (see Addenda A and B). Once the abovementioned institutions had granted permission, the participants were recruited by written invitation on site at the school. All children aged between 10-12 years (and their parents) were approached to participate in the study ($n = 112$). Their participation in this study was voluntary. Oral permission was previously granted by the headmaster to access the school and approach the children to take part in this study. Continuous contact was established with the headmaster and other key informants and the study was discussed with them (see Addendum C). Consent forms were sent to the parents (see Addenda D & E) via the school. Both written parental consent, as well as the children's assent (Mash & Wolfe, 2005), were obtained. The study was explained to the children, who signed a consent form (see Addendum F) for their assent. The consent forms were adapted according to the guidelines of the Ethics Committee of Stellenbosch University. Arrangements were made to clarify any further enquiries, should they arise.

Stage two entailed the process of data collection. Parents were requested to complete the PBQ (see Addendum G). The aforementioned questionnaire was sent to the parents via the school. The PBQ was returned to the school within one week of being sent out. This procedure was monitored by a staff member, who is employed as the child development programme coordinator at the school. The children were assessed individually in a classroom provided by the school for this purpose. The researcher or trained research assistants administered the child fear measures, namely the FLM (see Addendum H) and the KFQ1 to the study population. In order to normalise the situation once the FLM and the KFQ1 had been administered to the children, the researcher or trained research assistants concluded by asking the child questions in a child-friendly manner regarding his or her best loved children's story. After a period of one month, the KFQ2 was administered in the same manner.

It is important to note that the researcher and the two research assistants were known to the children. Both the researcher and research assistants completed their BPsych community work (as part of their

Bachelors degree in Psychology) at the school in 2005 for a period of 6 months under the supervision of the child development programme coordinator at the school and a staff member of the Psychology Department of Stellenbosch University. The majority of the children were, therefore, aware of the researcher and research assistants' presence at the school in 2005. This contributed towards the child-friendliness of the study as children were not confronted by complete strangers, and contributed towards child-friendly research.

Stage three consisted of the process of analysing the collected data. The data were analysed using the Statistical Package for Social Science (SPSS) to calculate descriptive statistics (mean, mode and frequency) and non-parametric methods, as data were mostly categorical in nature (Field 2003; George & Mallery, 1999;).

4.5 Data analysis

Data analysis was carried out utilising the Statistical Package for Social Science (SPSS) to calculate descriptive statistics (mean, mode and frequency) and non-parametric methods, as the data were mostly categorical in nature. (George & Mallery, 1999).

CHAPTER 5

RESULTS

5.1 Demographic characteristics of participants

The demographic characteristics of the participants are represented in Table 1.

Table 1
Demographic Characteristics of the Sample

Group	Children		Male			Female			Parents	
	N	% (N=84)	N	% (n=43)	% (N=84)	n	% (n=41)	% (N=84)	N	% (N=56)
Total Sample	84	100.00	43	100.00	51.19	41	100.00	48.81	56	100.00
Age 10	35	41.67	18	41.86	21.43	17	41.46	20.24		
Age 11	29	34.52	14	32.56	16.67	15	36.59	17.86		
Age 12	20	23.81	11	25.58	13.10	9	21.95	10.71		

The age for the total group of children (N = 84) ranged between 10 and 12 years (M = 10.82, SD = 0.794). The mean age for the male group was 10.84 (SD = 0.814), who accounted for 51.19% of the total sample. The female group had a mean age of 10.80 (SD = 0.782) and made up 48.81% of the total sample. Children aged 10 accounted for 41.67% of the sample, with 11 and 12 year olds accounted for 34.52% and 23.81%, respectively. Parental reports were obtained for 56 of the 84 children. However, 5 copies of the PBQ were incomplete and had to be excluded from the study, giving a total of 51 parental reports.

5.2 Description of the content of fears

5.2.1 Fear rank order based on the results of the FLM content

The fear rank order of middle childhood fears as reported by the children with regard to the total sample, male and female groups are represented in Table 2.

Table 2
Fear List Method (FLM) Content Fear Rank Order for Children

Item	Total Sample (N=84)			Male (n=43)			Female (n=41)		
	f	%	Rank	f	%	Rank	f	%	Rank
Wild animals	39	46.4	1	18	41.9	1	21	51.2	1
Domestic animals	9	10.7	2	5	11.6	2	4	9.8	3
Real people	8	9.5	3	1	2.3	9	7	17.1	2
Fantasy people	6	7.1	4	4	9.3	4	2	4.9	5
Dark/night	6	7.1	5	5	11.6	3	1	2.4	6
Other	5	6.0	6	2	4.7	7	3	7.3	4
School	4	4.8	7	3	7.0	5	1	2.4	7
Crime/violence	3	3.6	8	3	7.0	6	0	0.0	9
Insects	2	2.4	9	2	4.7	8	0	0.0	10
Fantasy animals	1	1.2	10	0	0.0	10	1	2.4	8

Fear of *Wild animals* was the largest fear category for the total sample of children (46.4%) as well as for both male (41.9%) and female (51.2%) groups. For the total sample, *Domestic animals* (10.7%), and *Real people* (9.5%) comprised the rest of the top three fears. For the male group, this was *Domestic animals* (11.6%) and *Dark/night* (11.6%). The female group expressed *Real people* (17.1%) and *Domestic animals* (9.8%) as their second and third largest fears.

5.2.2 Fear rank order based on the results of the PBQ content

The fear rank order of middle childhood fears as reported by the parents of the children with regard to the total sample, male and female groups are represented in Table 3.

Table 3
Parental Biographical Questionnaire (PBQ) Fear Rank Order of Content by Parents

Item	Total Sample (N=51)			Male (n=20)			Female (n=31)		
	F	%	Rank	f	%	Rank	f	%	Rank
Wild animals	16	31.4	1	8	40.0	1	8	25.8	1
Domestic animals	8	15.7	2	4	20.0	2	4	12.9	4
Real people	5	9.8	3	0	0.0	7	5	16.1	2
Crime/violence	5	9.8	4	2	10.0	4	3	9.7	5
Other	5	9.8	5	0	0.0	8	5	16.1	3
Dark/night	4	7.8	6	1	5.0	5	3	9.7	6
Fantasy people	3	5.9	7	3	15.0	3	0	0.0	8
Insects	1	2.0	8	1	5.0	6	0	0.0	9
School	1	2.0	9	0	0.0	9	1	3.2	7
Fantasy animals	0	0.0	10	0	0.0	10	0	0.0	10

Parents indicated *Wild animals* as the largest fear category for the total sample (31.4%), the male group (40.0%), and the female group (25.8%). The second and third largest categories were: for the total group, *Domestic animals* (15.7%) and *Real people* (9.8%), for the male group, *Domestic animals* (20.0%) and *Fantasy people* (15.0%), and for the female group, *Real people* (16.1%) and *Other* (16.1%).

5.2.3 Fear rank order based on the results of the KFQ1

The fear rank order was calculated using the number of items were the children endorsed *Very afraid*. The frequency and rank order of fears with regard to the total sample, male and female groups are represented in Table 4.

Table 4
Koala Fear Questionnaire without Visual Cues (KFQ1) Frequency and Rank Order of Fears

Item	Total Sample (N=84)			Male (n=43)			Female (n=41)		
	f	%	Rank	f	%	Rank	f	%	Rank
That a car will run you over	77	91.7	1	41	95.3	1	36	87.8	4
Crocodiles	73	86.9	2	36	83.7	4	37	90.2	2
When you get lost and you are without your mom and dad	69	82.1	3	34	79.1	6	35	85.4	5
Snakes	69	82.1	4	31	72.1	8	38	92.7	1
Death	69	82.1	5	38	88.4	2	31	75.6	9
Lions	68	81.0	6	34	79.1	5	34	82.9	7
A scary man who wants to take you with him	67	79.8	7	32	74.4	7	35	85.4	6
War	64	76.2	8	36	83.7	3	28	68.3	10
A burglar in your house	63	75.0	9	30	69.8	9	33	80.5	8
Ghosts	62	73.8	10	26	60.5	11	36	87.8	3
Witches	53	63.1	11	27	62.8	10	26	63.4	12
To be high up in the air	49	58.3	12	22	51.2	14	27	65.9	11
That your parents will get a divorce	47	56.0	13	26	60.5	12	21	51.2	14
Scary dreams	38	45.2	14	19	44.2	15	19	46.3	15
When you fall ill	36	42.9	15	22	51.2	13	14	34.1	19
When your parents have a quarrel	33	39.3	16	18	41.9	16	15	36.6	18
To fly in an aeroplane	31	36.9	17	15	34.9	17	16	39.0	17
To be in the dark	30	35.7	18	14	32.6	18	16	39.0	16
Spiders	30	35.7	19	9	20.9	22	21	51.2	13
Dogs	23	27.4	20	10	23.3	20	13	31.7	20
A scary movie	20	23.8	21	8	18.6	23	12	29.3	21
To get an injection	20	23.8	22	10	23.3	21	10	24.4	23
Thunder and lightning	18	21.4	23	10	23.3	19	8	19.5	24
When other kids tease you	13	15.5	24	3	7.0	27	10	24.4	22
Fire and getting burned	11	13.1	25	4	9.3	24	7	17.1	25
Blood	11	13.1	26	4	9.3	25	7	17.1	26
Rats and mice	10	11.9	27	3	7.0	26	7	17.1	27
To ride on a rollercoaster	5	7.6	28	2	6.3	28	3	8.8	29
Telling something to the class	5	6.0	29	2	4.7	29	3	7.3	30
Chickens	5	6.0	30	1	2.3	30	4	9.8	28
Birds	0	0.0	31	0	0.0	31	0	0.0	31

For the total sample, the five most endorsed items were: *That a car will run you over* (91.7%), *Crocodiles* (86.9%), *When you get lost and you are without your mom and dad* (82.1%), *Snakes* (82.1%), and *Death* (82.1%). The male group indicated *That a car will run you over* (95.3%), *Death* (88.4%), *War* (83.7%), *Crocodiles* (83.7%), and *Lions* (79.1%) as their top five fears. For the female group, the top five fears were: *Snakes* (92.7%), *Crocodiles* (90.2%), *Ghosts* (87.8%), *That a car will run you over* (87.8%), and *When you get lost and you are without your mom and dad* (85.4%)

5.2.4 Fear rank order based on the results of the KFQ2

The fear rank order was calculated using the number of items were the children endorsed *Very afraid*. The frequency and rank order of fears with regard to the total sample, male and female groups are represented in Table 5.

Table 5
Koala Fear Questionnaire with Visual Cues (KFQ2) Frequency and Rank Order of Fears

Item	Total sample (N=84)			Male (n=43)			Female (n=41)		
	f	%	Rank	f	%	Rank	f	%	Rank
A scary man who wants to take you with him	75	89.3	1	38	88.4	2	37	90.2	2
That a car will run you over	74	88.1	2	39	90.7	1	35	85.4	4
When you get lost and you are without your mom and dad	72	85.7	3	35	81.4	5	37	90.2	1
Lions	71	84.5	4	35	81.4	4	36	87.8	3
Crocodiles	70	83.3	5	36	83.7	3	34	82.9	5
Death	62	73.8	6	32	74.4	6	30	73.2	9
A burglar in your house	60	71.4	7	28	65.1	9	32	78.0	8
Witches	58	69.0	8	26	60.5	10	32	78.0	7
Snakes	58	69.0	9	25	58.1	11	33	80.5	6
War	56	66.7	10	29	67.4	7	27	65.9	10
Ghosts	55	65.5	11	28	65.1	8	27	65.9	11
Fire and getting burned	43	51.2	12	21	48.8	13	22	53.7	12
That your parents will get a divorce	40	47.6	13	19	44.2	15	21	51.2	13
When you fall ill	37	44.0	14	23	53.5	12	14	34.1	17
To be high up in the air	34	40.5	15	19	44.2	14	15	36.6	16
When your parents have a quarrel	32	38.1	16	15	34.9	17	17	41.5	15
To fly in an aeroplane	29	34.5	17	15	34.9	18	14	34.1	18
Scary dreams	28	33.3	18	14	32.6	19	14	34.1	19
To be in the dark	28	33.3	19	16	37.2	16	12	29.3	20
Spiders	26	31.0	20	7	16.3	23	19	46.3	14
A scary movie	25	29.8	21	13	30.2	20	12	29.3	21
To ride on a rollercoaster	17	20.2	22	9	20.9	22	8	19.5	23
Dogs	16	19.0	23	10	23.3	21	6	14.6	26
To get an injection	13	15.5	24	6	14.0	24	7	17.1	25
Rats and mice	12	14.3	25	2	4.7	28	10	24.4	22
Thunder and lightning	11	13.1	26	3	7.0	25	8	19.5	24
When other kids tease you	8	9.5	27	3	7.0	26	5	12.2	27
Blood	8	9.5	28	3	7.0	27	5	12.2	28
Chickens	3	3.6	29	0	0.0	29	3	7.3	29
Telling something to the class	1	1.2	30	0	0.0	30	1	2.4	30
Birds	0	0.0	31	0	0.0	31	0	0.0	31

For the total sample, the five most endorsed items were: *A scary man who wants to take you with him* (89.3%), *That a car will run you over* (88.1%), *When you get lost and you are without your mom and dad* (85.7%), *Lions* (84.5%), and *Crocodiles* (83.3%). The male group indicated *That a car will run you over* (90.7%), *A scary man who wants to take you with him* (88.4%), *Crocodiles* (83.7%), *Lions* (81.4%), *When you get lost and you are without your mom and dad* (81.4%) as their top five fears. For the female group, the top five fears were: *When you get lost and you are without your mom and dad* (90.2%), *A scary man who wants to take you with him* (90.2%), *Lions* (87.8%), *That a car will run you over* (85.4%), and *Crocodiles* (82.9%).

5.2.5 Significant differences between the KFQ1 and the KFQ2

By comparing the 31 individual items of the KFQ1 with the KFQ2, it was found that only five items presented significant differences between the two forms of the KFQ regarding the three intensity levels. These five items are represented in Table 6.

Table 6
Statistically Significant Differences Between KFQ1 and KFQ2 Scores

Intensity	A scary movie		To be high up in the air		Snakes		A scary man who wants to take you with him		Fire and getting Burned	
	KFQ1	KFQ2	KFQ1	KFQ2	KFQ1	KFQ2	KFQ1	KFQ2	KFQ1	KFQ2
Not afraid	38	22	15	28	4	10	7	0	54	15
A little afraid	26	37	20	22	11	16	10	9	19	26
Very afraid	20	25	49	34	69	58	67	75	11	43

The McNemar – Bowker Test was used to determine whether any statistically significant differences were present between the two forms of the KFQ. According to Table 7, all five items presented statistically significant differences.

Table 7
Results of Significant Differences Using the McNemar - Bowker Test

Item	χ^2	df	p
(1) A scary movie	10.074	3	0.018*
(12) To be high up in the air	9.567	3	0.023*
(13) Snakes	11.231	3	0.011*
(15) A scary man who wants to take you with him			0.030**
(23) Fire and getting burned	39.329	3	0.000*

* $p < 0.05$

** Calculated using Steward Maxwell Test in Statistica, $p < 0.05$

5.3 Description of the number of fears

5.3.1 Number of fears based on the results of the FLM

The number of fears and the average per child with regard to the total sample, male and female groups is represented in Table 8.

Table 8
Fear List Method (FLM) Number, M and SD of Fears

	n	Minimum	Maximum	Number of fears	M	SD
Total sample	84	0	4	199	2.37	0.875
Male	43	1	4	98	2.28	0.882
Female	41	0	4	101	2.46	0.869

Children expressed an average of 2.37 fears (SD = 0.875), with a range between 0 and 4 fears. The male group expressed an average of 2.28 fears, with the female group expressing an average of 2.46 fears.

5.3.2 Number of fears based on the results of the PBQ

The number of fears and the average that the parents reported per child with regard to the total sample, male and female groups is represented in Table 9.

Table 9
Parental Biographical Questionnaire (PBQ) Number, M and SD of Fears

	n	Minimum	Maximum	Number of fears	M	SD
Total sample	51	0	4	66	1.22	0.757
Male	20	0	3	24	1.20	0.696
Female	31	0	4	38	1.23	0.805

According to parental reports, the total sample had an average of 1.22 fears (SD = 0.757), the male group 1.20 fears, and the female group 1.23 fears.

5.3.3 Significant differences between the number of fears as reported by children and parents

The Wilcoxon Signed Ranks Test was used to determine whether there is a statistically significant difference between the number of fears as expressed by the children and the number of fears as reported by the parents. The results of the Wilcoxon Signed Ranks Test are represented in Table 10.

According to Table 10, there was a statistically significant difference between the number of fears as expressed by the children and the number of fears as reported by the parents.

Table 10
Results of Significant Differences Between Child and Parent

Group	Z	P
All	-4.962	0.000*
Male	-2.675	0.007*
Female	-4.227	0.000*

* $p < 0.05$

The Mann-Whitney Test was used to determine whether there is a statistically significant difference between gender regarding the number of fears as reported by the children and by their parents. The results of the Mann-Whitney Test are represented in Table 11. No statistically significant difference between gender was found.

Table 11
Mann-Whitney Test Results of Gender Differences on Number of Fears

Group	Gender	n	M	SD	M.W. U	p
Children	Male	43	2.28	0.882	761.500	0.253
	Female	41	2.46	0.869		
Parents	Male	20	1.20	0.696	310.000	1.000
	Female	31	1.23	0.805		

5.3.4 Number of fears based on the results of the KFQ1

The number of fears and the average per child with regard to the total sample, male and female is represented in Table 12.

Table 12
Koala Fear Questionnaire without Visual Cues (KFQ1) Number, M and SD of Fears

Group	Level	Minimum	Maximum	Total	M	SD
Total Sample						
(N=84)	Not afraid	0	23	763	9.08	4.790
	A little afraid	0	18	654	7.79	3.856
	Very afraid	3	25	1169	13.92	4.440
Male						
(n=43)	Not afraid	0	23	435	10.12	4.702
	A little afraid	0	16	320	7.44	4.031
	Very afraid	5	22	567	13.19	4.294
Female						
(n=41)	Not afraid	0	21	328	8.00	4.696
	A little afraid	2	18	334	8.15	3.678
	Very afraid	3	24	602	14.68	4.514

The total sample reported an average of 13.92 fears. The male and female groups reported an average of 13.19 and 14.68, respectively.

5.3.5 Number of fears based on the results of the KFQ2

The number and average of fears per child with regard to the total sample, male and female is represented in Table 13.

Table 13
Koala Fear Questionnaire with Visual Cues (KFQ2) Number, M and SD of Fears

Group	Level	Minimum	Maximum	Total	M	SD
Total Sample						
(N=84)	Not afraid	1	23	772	9.19	5.069
	A little afraid	1	16	710	8.45	3.551
	Very afraid	1	24	1122	13.36	4.779
Male						
(n=43)	Not afraid	1	23	423	9.84	5.490
	A little afraid	1	16	361	8.4	3.849
	Very afraid	4	24	549	12.77	4.903
Female						
(n=41)	Not afraid	2	23	349	8.51	4.556
	A little afraid	2	15	349	8.51	3.257
	Very afraid	1	22	573	13.98	4.623

The total sample reported an average of 13.36 fears (SD = 4.779). The male group reported an average of 12.77 fears (SD = 4.903) and the female group an average of 13.98 fears (SD = 4.623).

5.3.6 Significant differences between the number of fears on the KFQ1 and the KFQ2

The Wilcoxon Signed Ranks Test was used to determine whether there is a statistically significant difference between the number of fears as reported on the KFQ1 and the KFQ2. The results of the Wilcoxon Signed Ranks Test are represented in Table 14. According to Table 14, there is no statistically significant difference between the number of fears as reported on the KFQ1 and the KFQ2.

Table 14

Results on Significant Differences Regarding Number of Fears

Group	Intensity Level	Z	p
All (N=84)	Not afraid1* - Not afraid2**	-0.328	0.743
	A little afraid1* - A little afraid2**	-1.850	0.064
	Very afraid1* - Very afraid2**	-1.459	0.145
Male (n=43)	Not afraid1* - Not afraid2**	-0.595	0.552
	A little afraid1* - A little afraid2**	-1.700	0.089
	Very afraid1* - Very afraid2**	-0.864	0.388
Female (n=41)	Not afraid1* - Not afraid2**	-0.261	0.794
	A little afraid1* - A little afraid2**	-1.034	0.301
	Very afraid1* - Very afraid2**	-1.234	0.217

* Refers to KFQ1

** Refers to KFQ2

The Mann-Whitney Test was used to determine whether there is a statistically significant difference regarding the number of fears as reported on the KFQ1 and the KFQ2 with regard to gender. The results of the Mann-Whitney Test are represented in Table 15. No statistically significant difference with regard to gender was found.

Table 15
Mann-Whitney Test Results of Gender Differences on Number of Fears

KFQ	Intensity Level	Gender	M	SD	M.W. U	p
KFQ1						
(Without visual cues)	Not afraid	Male	10.12	4.702	673.500	0.062
		Female	8.00	4.696		
	A little afraid	Male	7.44	4.031	792.000	0.421
		Female	8.15	3.678		
	Very afraid	Male	13.19	4.294	721.000	0.149
		Female	14.68	4.514		
KFQ2						
(With visual cues)	Not afraid	Male	9.84	5.490	769.000	0.313
		Female	8.51	4.556		
	A little afraid	Male	8.40	3.849	878.000	0.975
		Female	8.51	3.257		
	Very afraid	Male	12.77	4.903	715.000	0.135
		Female	13.98	4.623		

5.4 Description of the intensity of fears

5.4.1 Intensity of fears based on the results of the FLM

The intensity of fears and the average per child with regard to the total sample, male and female groups is represented in Table 16.

Table 16
Fear List Method (FLM) Intensity of Fear

Group	N	Minimum	Maximum	M	SD
All	84	1	3	2.88	0.361
Male	43	2	3	2.88	0.324
Female	41	1	3	2.88	0.400

The total sample, the male group and the female group all reported an average intensity of 2.88, with a standard deviation of 0.361, 0.324 and 0.400, respectively.

5.4.2 Intensity of fears based on the results of the PBQ

The intensity of fears and the average as reported by the parents per child with regard to the total sample, male and female is represented in Table 17.

Table 17
Parental Biographical Questionnaire (PBQ) Intensity of Fear

Group	n	Minimum	Maximum	M	SD
All	51	1	3	2.71	0.610
Male	20	1	3	2.70	0.571
Female	31	1	3	2.71	0.643

The average intensity for the total sample was 2.71 (SD = 0.610). The male group reported an average intensity of 2.70 (SD = 0.571) and the female group 2.71 (SD = 0.643).

5.4.3 Significant differences between intensity of fears as reported by children and parents

The Wilcoxon Signed Ranks Test was utilised to determine whether there is a statistically significant difference between the intensity of fears as reported by the children and the intensity of fears as reported by the parents. The results of the Wilcoxon Signed Ranks Test are represented in Table 18. No statistically significant differences were found between the intensity of fears reported by the children and the intensity of fears reported by the parents.

Table 18
Significant Differences Between Child and Parent

Group	Z	P
All	-1.734	0.083
Male	-1.414	0.157
Female	-1.100	0.271

The Mann-Whitney Test was used to determine whether there is a statistically significant difference between gender with regard to the intensity of fears as reported by the children and by their parents. The results of the Mann-Whitney Test are represented in Table 19. No statistically significant difference with regard to gender was found.

Table 19
Mann-Whitney Test Results of Gender Differences on Intensity of Fears

Group	Gender	n	M	SD	M.W. U	p
Child	Male	43	2.28	0.882	867.500	0.815
	Female	41	2.46	0.869		
Parent	Male	20	1.20	0.696	297.000	0.727
	Female	31	1.23	0.805		

5.4.4 Intensity of fears based on the results of the KFQ1

The intensity of fears and the average per child with regard to the total sample, male and female groups is represented in Table 20.

Table 20
Koala Fear Questionnaire without Visual Cues (KFQ1) Intensity of Fears

Group	Minimum	Maximum	M	SD
Total sample (N=84)	44	83	66.40	8.357
Male (n=43)	45	77	64.56	7.842
Female (n=41)	44	83	68.34	8.534

The total sample scored an average intensity of 66.40 (SD = 8.357). The male group scored an average intensity of 64.56 (SD = 7.842), with the female group scoring 68.34 (SD = 8.534).

5.4.5 Intensity of fears based on the results of the KFQ2

The intensity of fears and the average per child with regard to the total sample, male and female groups is represented in Table 21.

Table 21
Koala Fear Questionnaire with Visual Cues (KFQ2) Intensity of Fears

Group	Minimum	Maximum	M	SD
Total sample (N=84)	40	83	66.17	9.190
Male (n=43)	43	83	64.93	9.672
Female (n=41)	40	81	67.46	8.582

The total sample scored an average of 66.17 (SD = 9.190). The average score for the male group was 64.93 (SD = 9.672) and 67.46 (SD = 8.582) for the female group.

5.4.6 Significant differences between the intensity of fears on the KFQ1 and the KFQ2

The Wilcoxon Signed Ranks Test was used to determine whether there is a statistically significant difference between the intensity of fears as reported on the KFQ1 and the KFQ2. The results of the Wilcoxon Signed Ranks Test are represented in Table 22. According to Table 22, there was no statistically significant difference between the intensity of fears as reported on the KFQ1 and the KFQ2.

Table 22

Wilcoxon Signed Ranks Test Results on Intensity of Fears

Group	Intensity Level	Z	p
Total sample (N=84)	Intensity1* - Intensity2**	-0.012	0.990
Male (n=43)	Intensity1* - Intensity2**	-0.426	0.670
Female (n=41)	Intensity1* - Intensity2**	-0.423	0.673

* Refers to KFQ1

** Refers to KFQ2

The Mann-Whitney Test was used to determine whether there is a statistically significant difference regarding the intensity of fears as reported on the KFQ1 and the KFQ2 with regards to gender. The results of the Mann-Whitney Test are represented in Table 23. No statistically significant difference with regards to gender was found.

Table 23

Mann-Whitney Test Results of Gender Differences on Intensity of Fears

KFQ	Intensity	Gender	n	M	SD	M.W. U	p
Without visual cues	Intensity	Male	43	64.56	7.842	678.500	0.069
		Female	41	68.34	8.534		
With visual cues	Intensity	Male	43	64.93	9.672	738.500	0.200
		Female	41	67.46	8.582		

CHAPTER 6

DISCUSSION

The aim of the current study pertains to four research questions: (1) What are the content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region? (2) Are there any differences between the Koala Fear Questionnaire (KFQ) scores without visual cues (KFQ1) and the KFQ scores with visual cues (KFQ2)? (3) Are there gender differences regarding content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region? (4) Are there differences regarding content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region as reported in child reports and parental reports?

The ecological systems theory, the social learning theory and Rachman's three pathways to fear theory offer the best explanation for the findings of the current study and will, therefore, be used throughout the discussion. The ecological systems theory is mainly used to understand the children within a specific context, namely that of a South African farming community. In addition, the social learning theory and Rachman's three pathways to fear theory are used in support of the ecological systems theory and to offer an explanation of findings pertaining to aspects of fear, such as specific content, number and intensity of fears.

6.1 Research Question One

What are the content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region?

6.1.1 Content of fears

Results from the FLM indicated that fears revolving around animals constituted 60.7% of all fears expressed by the children, with the largest category, *Wild animals*, accounting for 46.4% of the total number of fears expressed by the children (see Table 2). These findings are in accordance with previous research done in the South African context. Burkhardt, Loxton et al. (2003), reported that 45.5% of the children endorsed a fear of *Snakes* and that fears pertaining to animals constituted five of the top ten fears. Burkhardt (2002) found that the largest fear category was also fear of *Snakes* (41.13%) and that five of the top ten fear pertained to fears of animals.

The top five fears from the KFQ1 (without visual cues) was *That a car will run you over* (91.7%), *Crocodiles* (82.1%), *When you get lost and you are without your mom and dad* (82.1%), *Snakes* (82.1%), and *Death* (82.1%) (see Table 4). Results from the KFQ2 (with visual cues) indicated the top five fears as the following: *A scary man who wants to take you with him* (89.3%), *That a car will run you over* (88.1%), *When you get lost and you are without your mom and dad* (85.7%), *Lions* (84.5%), and *Crocodiles* (83.3%) (see Table 5). These South African findings differed from international studies. The current study and international studies (Muris, Meesters et al., 2003; Muris, Merckelbach & Luitjen, 2002) found two corresponding items in the top five fears (*That a car will run you over* and *When you get lost and you are without your mom and dad*). However, the current study found fear of *Lions*, *Snakes* and *Crocodiles* within the top five fears, while international studies did not (Muris, Meesters et al. 2003; Muris, Merckelbach & Luitjen, 2002).

According to the social learning theory children may develop fears in one of three manners: firstly, through observing others, secondly, through exposure to negative stimuli, and thirdly, through direct experience (Bandura, 1977; Botha et al., 2001; Bukatko & Daehler, 1998). A possible explanation for the high prevalence of animal related fears may be that children from the African continent are more aware of wild animals than children from other Western or European countries. Wild animals are a part of the ecological system in which South African children live and function. Such animals are part of the micro- and macrosystems of children. In comparison with European countries lions, snakes and crocodiles are part of South African wildlife and as such, form part of South African children's field of reference regarding wild and dangerous animals. As South Africa is a country with a large variety of wildlife, children are sensitised to this wildlife in many ways. This could take the form of either direct experience, negative information or observing others, which may, therefore, lead to the development of fears pertaining to animals.

This also ties in with Rachman's fear acquisition theory (1977; 1990), in which conditioning plays an important role. Conditioning includes the direct exposure to the specific fear-provoking stimuli in a multitude of ways. As South African children, and especially children from a farming community, are more aware of wild animals than children from other Western or European countries, this may contribute to the high prevalence of animal related fears.

6.1.2 Number of fears

In the current study, using the FLM (see Table 8), the children reported an average number of 2.37 fears ($SD = 0.875$). This finding differs slightly from previous research conducted in the South African context for middle childhood children. Burkhardt, Loxton et al. (2003), reported that children endorsed an average of 3.6 fears. Burkhardt (2003) reported that the sample of 141 middle childhood children from four children's homes expressed an average of 3.97 fears, which is slightly higher than those of the sample of 404 children from a normative sample (Burkhardt, Loxton et al., 2003). Interestingly, the finding of the current study of an average of 2.37 fears for children from a low SES coloured farming community seems to be in accordance with previous research amongst preschool children (Keller, 2001; Loxton, 2004) from low SES areas in the Cape Province. Previous research found that preschool children from a lower SES area expressed a lower number of fears than preschool children from a higher SES area (Keller, 2001; Loxton 2004; Martalas, 1999).

According to results from the KFQ1 (without visual cues), the children reported an average of 13.92 fears ($SD = 4.440$) (see Table 12). The KFQ2 (with visual cues) results indicated similar findings, with children reporting an average of 13.36 fears ($SD = 4.779$) (see Table 13). Although the KFQ has never before been used in the specific context of the current study, and information on number of fears as measured by the KFQ is not available in peer-reviewed journals (P. Muris, Personal communication, 15 August 2007), the findings are fairly similar to previous research regarding similar age groups. Ollendick et al. (1989), using the FSSC-R in a Western American and Australian context, reported that 7 and 10 year old children expressed an average of 17 fears, while children between the ages of 11 and 13 years expressed an average of 13 fears. Gullone and King (1993), using the FSSC-II, found an average of 19.76 fears in children between the ages of 7 and 10 years and an average of 15.52 fears in children between the ages of 11 and 14 years.

According to the ecological systems theory (Bronfenbrenner, 1979; Craig, 1996) there is a persistent two way interaction between the child and the environment across all four systems. The first system in the systems theory, the microsystem, is the immediate physical and social environment in which the child functions on a daily basis. These various environments have a direct influence on the child's development (Bronfenbrenner, 1979; Craig, 1996; Reifsnider et al., 2005). In the context of the current study, the microsystem of the child consists primarily of the home environment (the farm on which the child lives), the primary school that the child attends (the farm school where the research was conducted), and the after-school environment (again the farm where the child lives). In a recent study,

Loxton (2004) hypothesised that the lower number of fears found amongst children from a low SES area compared to children from a higher SES area is the result of the exposure to negative information. As children from a low SES area have access to fewer resources such as television, movies or internet than children from a higher SES area, they are less exposed to negative information, which could explain the lower number of fears expressed by the children. As the community in which the current study took place is characterised as being of low socioeconomic status ([REDACTED] personal communication, 6 May 2006) with a variety of socioeconomic problems, coupled with previous research indicating a lower number of fears expressed by preschool children from a low SES area than preschool children from a higher SES area (Keller, 2001; Loxton 2004), this slightly lower result regarding number of fears could be explained in the same manner as in the research by Loxton (2004). Being from a low SES area, the children have less access to resources such as television, movies or the internet and as such they consequently experience less exposure to negative information which could account for the lower number of fears found in the current study.

6.1.3 Intensity of fears

Children reported an average intensity of fears of 2.88 (SD = 0.361) on the FLM (see Table 16). Previous research using similar methods of measuring intensity reported an average of 2.4 fears (Muris et al., 2002). The current study's results are in keeping with these findings.

When employing the KFQ1 (without visual cues), children reported an average fear intensity of 66.40 (SD = 8.357) (see Table 20). Results from the KFQ2 (with visual cues) indicate an average fear intensity of 66.17 (SD = 9.190) (see Table 21). Previous international research using the KFQ reported an average fear intensity of 57.6 (Muris et al., 2002). The results from the current study are higher than previous research.

The higher intensity of fears as found in both the KFQ1 (without visual cues) and the KFQ2 (with visual cues) could be attributed to a variety of factors according to the ecological systems theory. The immediate daily physical and social environment in which the child functions is very important as it has a direct influence on the child's development (Bronfenbrenner, 1979; Craig, 1996; Reifsnider et al., 2005). According to Bronfenbrenner (1979) a constant two way interaction takes place between the child and the environment. The microsystems of the children in the South Africa context are influenced by following factors. Firstly, the South African society is characterised by very high levels of violence, including murder and rape (Van der Hoven, 2001) with 18 793 murders, 55 114 rapes and 5 568 cases

of neglect and ill-treatment of children committed in South Africa between April 2004 and May 2005 (South African Police Service, 2005). Children are exposed to these high levels of violence as either victims themselves or are affected indirectly by family and friends being victims of crime. Secondly, environmental factors such as the media may expose children to negative stimuli. Thirdly, South Africa has a wide variety of wildlife of which children are more aware than children from other Western or European countries. These factors and exposure influence the two way interaction of the child and the environment and serve as a possible explanation for the slightly higher intensity level of fears found in the current study.

6.2 Research Question two

Are there any differences between the Koala Fear Questionnaire (KFQ) scores without visual cues (KFQ1) and the KFQ scores with visual cues (KFQ2)?

6.2.1 Content of fears

By comparing the 31 individual items of the KFQ1 (without visual cues) with the KFQ2 (with visual cues), it was found that only five items presented significant differences between the two forms of the KFQ (see Table 6 and Table 7). These items were: *A scary movie*, *To be high up in the air*, *Snakes*, *A scary man who wants to take you with him*, and *Fire and getting burned*. On the first three items listed above, in the intensity level of *Very afraid*, there appears to be decline in the percentage of children endorsing the specific items from the KFQ1 (without visual cues) to the KFQ2 (with visual cues). These results seem to indicate that these specific visual cues or representations used in the KFQ decreases the level of fear intensity. On the last two items (*A scary man who wants to take you with him*, and *Fire and getting burned*) there was an increase in the intensity level of *Very afraid* from the KFQ1 (without visual cues) to the KFQ2 (with visual cues). This seems to indicate that the visual cues used on these two items of the KFQ increases the level of fear intensity when presented with the visual cue. Therefore, these results indicate that the use of the visual cues and stimuli in the KFQ influenced the reporting of fears by children.

The social learning theory in conjunction with the ecological systems theory provides insight into the development of fear. According to the ecological systems theory, the microsystem consists of a variety of environments which have a direct influence on the child's development (Bronfenbrenner, 1979; Craig, 1996; Reifsnider et al., 2005). Within the microsystem a child's experiences exert a direct influence on that child's development. A relatively large percentage of the South African population

(mostly from lower SES communities) still use fire (wood, coal, paraffin or gas) as the primary source of cooking (47.2%) and heating, (46.9%) respectively (Statistics South Africa, 2003). According to social learning theory exposure to negative stimuli could lead to the development of fear, (Bandura, 1977; Botha et al., 2001; Bukatko & Daehler, 1998). Research has also shown that visual cues or stimuli play an important role in the reporting of fears (Muris, Bodden et al., 2003; Sawchuk et al., 2002; Waters et al., 2004). When the social learning theory and ecological systems theory are applied to the current study, these may serve as possible explanations for the increase in fear intensity on the two fear items *A scary man who wants to take you with him* and *Fire and getting burned*. However, the decrease in the fear items *A scary movie*, *To be high up in the air*, and *Snakes* cannot be explained and further research is needed.

The increase in the fear intensity on the two fear items *A scary man who wants to take you with him* and *Fire and getting burned* may also be explained by Rachman's three pathways to fear theory. Rachman (1977; 1990) proposed three distinct pathways to the acquisition of fears. The three pathways are (1) conditioning, (2) vicarious acquisition or modelling, and (3) transmission of information/instruction. Visual cues may possibly serve as transmission of negative information regarding a specific fear item, which could account for the increase in fear intensity on the two fear items *A scary man who wants to take you with him* and *Fire and getting burned*. This does not, however, explain the decrease in the fear items *A scary movie*, *To be high up in the air*, and *Snakes* and further research should, therefore, be conducted in this respect.

6.2.2 Number of fears

According to results from the KFQ1 (without visual cues), the children reported an average of 13.92 fears (SD = 4.440) (see Table 12). The KFQ2 (with visual cues) results indicate similar findings, with children reporting an average of 13.36 fears (SD = 4.779) (see Table 13). The Wilcoxon Signed Ranks Test was used to determine whether there is a statistically significant difference between the number of fears as reported on the KFQ1 (without visual cues) and the KFQ2 (with visual cues). Results indicate that there was no statistically significant difference (see Table 14). These results seem to suggest that the use of visual cues or representations of fears does not affect the total number of fears endorsed by the children.

Research has shown that visual cues or stimuli play an important role in the reporting of fears (Muris, Bodden et al., 2003; Sawchuk et al., 2002; Waters et al., 2004). Results from the current study

indicated that on certain individual fear items, there appears to be a difference between the KFQ1 (without visual cues) and the KFQ2 (with visual cues). However, there is no difference with regard to the total number of fears between the KFQ1 (without visual cues) and the KFQ2 (with visual cues). Further research is needed in order to obtain a better understanding of these results.

6.2.3 Intensity of fears

When employing the KFQ1 (without visual cues), children reported an average fear intensity of 66.40 (SD = 8.357) (see Table 20). Results from the KFQ2 (with visual cues) indicates an average fear intensity of 66.17 (SD = 9.190) (see Table 21). Previous international research using the KFQ reported an average fear intensity of 57.6 (Muris et al., 2002). The results from the current study are slightly higher. The Wilcoxon Signed Ranks Test was used to determine whether there is a statistically significant differences between the intensity of fears as reported on the KFQ1 (without visual cues) and the KFQ2 (with visual cues). No statistically significant difference was found in intensity of fears between the KFQ1 (without visual cues) and the KFQ2 (with visual cues) (see Table 22). This result seems to indicate that employing visual cues or representations of fears do not affect the overall intensity level of fears endorsed by the children.

It has been reported that visual cues or stimuli play an important role in the reporting of fears, although it has been shown to increase level of fearfulness (Muris, Bodden et al., 2003; Sawchuk et al., 2002; Waters et al., 2004). Results from the current study indicated that on certain individual fear items, there appears to be a difference between the KFQ1 (without visual cues) and the KFQ2 (with visual cues), although no difference with regard to intensity of fears between the two versions of the KFQ were found. Further research to establish effect of visual cues on the reporting of fears may provide a better understanding of these results.

6.3 Research Question three

Are there gender differences regarding content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region?

6.3.1 Content of fears

Results from the FLM indicated that fears pertaining to animals accounted for 58.2% of all fears expressed by the boys and for 63.4% of the fears expressed by the girls (see Table 2). The top five fears differed slightly. Only three fear categories were similar for both boys and girls in the top five fears.

For boys the top five fears were *Wild animals* (41.9%), *Domestic animals* (11.6%), *Dark/night* (11.6%), *Fantasy people* (9.3%), and *School* (7.0%). For girls the top five fears were *Wild animals* (51.2%), *Real people* (17.1%), *Domestic animals* (9.8%), *Other* (7.3%), and *Fantasy people* (4.9%). Burkhardt (2003) reported that fears pertaining to animals accounted for 68.56% and 67.61% of the top ten fears for boys and girls respectively. The results from the current study are slightly lower, but still identify fears pertaining of animals as the largest percentages of fears.

The top five fears from the KFQ1 (without visual cues) for the boys were *That a car will run you over* (95.3%), *Death* (88.4%), *War* (83.7%), *Crocodiles* (83.7%), and *Lions* (79.1%). For girls, the top five fears were *Snakes* (92.7%), *Crocodiles* (90.2%), *Ghosts* (87.8%), *That a car will run you over* (87.8%), and *When you get lost and you are without your mom and dad* (85.4%). Only two items are present in the top five fears of both genders. These fears items were *That a car will run you over* and *Crocodiles* (see Table 4). These results are in accordance with previous research employing the KFQ that found differences between the genders with regard to item rank order and percentages of endorsement (Muris, Merckelbach & Luitjen, 2002).

For the KFQ2 (with visual cues) the top five fears for the boys were *That a car will run you over* (90.7%), *A scary man who wants to take you with him* (88.4%), *Crocodiles* (83.7%), *Lions* (81.4%), and *When you get lost and you are without your mom and dad* (81.4%). For the girls the top five fears were *When you get lost and you are without your mom and dad* (90.2%), *A scary man who wants to take you with him* (90.2%), *Lions* (87.8%), *That a car will run you over* (85.4%), and *Crocodiles* (82.9%). The results from the KFQ2 (with visual cues) differed from the results of the KFQ1 (without visual cues) with regard to content. For the KFQ2 (with visual cues) the top five fear items were similar in both genders (see Table 5), with only the rank order of fear and percentages of endorsement being different. Muris, Merckelbach and Luitjen (2002) reported gender differences with regard to content and thus the findings of the current study serve as supporting this international study.

The gender differences found in the content of fear on the FLM and KFQ1 (without visual cues) may be best explained by the social learning theory. Gender role orientation and gender expectations may influence the expressed fear content of the children (Ginsburg & Silverman, 2000). According to Gullone and King (1993) a possible answer for the differences in fears between gender could largely be ascribed to gender stereotypes and social learning, and not inherent gender differences. Boys may be unwilling to express fears pertaining to for example “mice, spiders or scary dreams”, when they are in

the company of their peers (Gullone & King, 1993). However, results from the KFQ2 (with visual cues) indicated no difference between gender with regard to contents of fear. It is possible that the use of visual cues may negate the effects of gender role orientation and gender expectations. In order to obtain a better understanding of this result, further research is needed regarding the effect of using visual cues on gender role orientation and expectation.

6.3.2 Number of fears

In the current study, using the FLM (see Table 8), the boys reported an average number of 2.28 fears (SD = 0.882) and the girls an average number of 2.46 fears (SD = 0.869). The Mann-Whitney Test was used to determine whether there is a statistically significant difference between genders. No statistically significant difference between the genders was found (see Table 11). This finding is similar to certain previous South African studies (Burkhardt, Loxton et al., 2003), but contradicts other previous international and South African research which reported a significant difference between genders regarding the number of fears expressed (Burkhardt, 2003; Gullone & King, 1993; Muris, Merckelbach, Meesters et al., 1997; Shore & Rapport, 1998).

According to results from the KFQ1 (without visual cues), the boys reported an average of 13.19 fears (SD = 4.294) and the girls reported an average of 14.68 fears (SD = 4.514) (see Table 12). The KFQ2 (with visual cues) results indicate similar findings, with boys reporting an average of 12.77 fears (SD = 4.903) and girls an average of 13.98 fears (SD = 4.623) (see Table 13). The Mann-Whitney Test was used to determine whether there is a statistically significant difference between genders regarding the number of fears as reported on both the KFQ1 (without visual cues) and the KFQ2 (with visual cues). Results from the Mann-Whitney Test indicate that there is no statistically significant difference between gender on either the KFQ1 (without visual cues) and the KFQ2 (with visual cues) (see Table 15).

Gullone and King (1993) stipulated that the differences normally found between genders are largely based on gender stereotypes and social learning, and not inherent gender differences. According to Bem (cited in Ginsburg & Silverman, 2000), the expression of fears and fearfulness is associated to a larger extent with the female gender, and as such it is more accepted or even encouraged in girls. Because of these socialisation patterns, and as reported in previous research (Gullone & King, 1993; Hall, 1897; Muris, Merckelbach, Meesters et al., 1997; Ollendick et al., 1989; Shore & Rapport, 1998), it could be expected that girls expressed a higher number of fears than boys. However, in contrast, no

gender differences regarding number of fears were found. When the social learning theory is applied in the context of the current study, a combination of Rachman's three pathways to fear theory and the ecological systems theory provides some understanding regarding the lack of gender differences in number of fears. As both genders form part of the same ecological systems, the same micro-, meso-, exo- and macrosystems are experienced by both genders. As such, any negative experiences, such as exposure to violence or animals, are distributed across gender. Thus both genders are exposed to both the same experiences and the same ecological system, which means that both genders are equally likely to development fear as described by Rachman's theory and the social learning theory.

6.3.3 Intensity of fears

Boys reported an average fear intensity of 2.88 (SD = 0.324) and girls a similar average intensity of 2.88 (0.400) on the FLM (see Table 16). This finding differs from previous international and South African research. Previous research reports that, on average, girls report a higher intensity of fears than boys (Burkhardt, 2002; Burkhardt, 2003; Burnham & Gullone, 1997; Ginsburg & Silverman, 2000; Gullone & King, 1993; Muris, Bodden et al., 2003; Muris, Meesters et al., 2003; Muris, Schmidt et al., 1999; Zohar & Felz, 2001).

According to results from the KFQ1 (without visual cues), the boys reported an average fear intensity of 64.56 (SD = 7.842), while girls reported an average fear intensity of 68.34 (SD = 8.534) (see Table 20). The KFQ2 (with visual cues) results indicated similar findings, with boys reporting an average fear intensity of 64.93 (SD = 9.672) and girls an average of 67.46 (SD = 8.582) (see Table 21). The Mann-Whitney Test was used to determine whether there is a statistically significant difference between genders regarding the intensity of fears as reported on both the KFQ1 (without visual cues) and the KFQ2 (with visual cues). Results from the Mann-Whitney Test indicated that there was no statistically significant difference between gender on either versions of the KFQ (see Table 23). Muris, Meesters et al. (2003) reported that in the age group 10 to 13 years, girls expressed a higher level of fearfulness than boys, 51.7 and 57.3 respectively, on the KFQ. The finding of the current study does not indicate a higher level of fearfulness in girls, as no significant difference was found.

According to the social learning theory (Bandura, 1977; Botha et al., 2001; Bukatko & Daehler, 1998) fear may be developed in one of three ways, either through observation, exposure to negative stimuli, or direct experience. Gullone and King (1993) stipulated that the differences between genders could largely be ascribed to gender stereotypes and social learning, and not inherent gender differences.

According to Bem (cited in Ginsburg & Silverman, 2000), the expression of fears and fearfulness is associated to a larger extent with the female gender, and as such it is more accepted or even encouraged in girls. These socialisation patterns, and as reported in previous research (Gullone & King, 1993; Hall, 1897; Muris, Merckelbach, Meesters et al., 1997; Ollendick et al., 1989; Shore & Rapport, 1998), may lead one to expect that girls expressed a higher intensity of fears than boys. However, in contrast to previous research, no gender differences regarding intensity of fears were found in the current study.

6.4 Research Question four

Are there differences regarding content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region as reported in child reports and parental reports?

6.4.1 Content of fears

Parents seem to have a relative accurate understanding regarding the content of their children's fears. Results from the FLM (see Table 2) reported fears revolving around animals comprise 60.7% of all fears expressed by the children, with *Wild animals* accounting for 46.4% of the total number of fears expressed by the children. Results for the PBQ (see Table 3) indicated that the largest fear category was *Wild animals* (31.4%), with fears pertaining to animals accounting for 49.1% of all fears. These findings vary from previous research, which indicated that parental perceptions regarding the content of their children's fears differed from the fears expressed by the children themselves (Jones & Borgers, 1988; Keller, 2001; Lapouse & Monk, 1959).

Results from the PBQ indicated that parents seem to have a fairly accurate estimate regarding the content of their children's fears, even when divided according to gender (see Table 3). Parents and boys reported the same four fear categories as part of the top five. The top five fears, according to the PBQ, were *Wild animals* (40.0%), *Domestic animals* (20.0%), *Fantasy people* (15.0%), *Crime/violence* (10.0%), and *Dark/night* (5.0%) and according to the FLM *Wild animals* (41.9%), *Domestic animals* (11.6%), *Dark/night* (11.6%), *Fantasy people* (9.3%), and *School* (7.0%). Parents and girls reported four of the top five fear categories as similar items. The top five fears, according to the PBQ, were as *Wild animals* (25.8%), *Real people* (16.1%), *Other* (16.1%), *Domestic animals* (12.9%), and *Crime/violence* (9.7%) and according to the FLM *Wild animals* (51.2%), *Real people* (17.1%), *Domestic animals* (9.8%), *Other* (7.3%), and *Fantasy people* (4.9%). These results vary from previous

research, which indicates a difference and more variety in fear content as reported by parents and expressed by their children (Jones & Borgers, 1988; Keller, 2001; Lapouse & Monk, 1959).

The relatively accurate estimate by parents regarding their children's fear content may be explained in terms of the ecological systems theory and the social learning theory. As fear could be learned through direct experience (Bandura, 1977; Botha et al., 2001; Bukatko & Daehler, 1998), the physical and geographical environment that forms part of the microsystem could play an important role. Children and parents live within the same physical and geographical environment. Therefore, they share a similar ecological system which comprises mainly of the farm setting. As such they are exposed to similar situations and stimuli (for example wild animals and crime). Furthermore, parents would be witness to their children experiences, which in turn would provide them with relative accurate perceptions regarding their children's fear content.

Rachman's three pathways to fear theory (1977; 1990) offers an alternative explanation for the relative accurate estimate by parents regarding their children's fear content. As fear can be learned through modelling or the transmission of information, it is possible that children develop the fears of their primary caregivers through daily interaction. As such, the fears expressed by the children could simply be a reflection of the parent's own fears, which may explain the relative accurate estimate by parents regarding their children's fear content.

6.4.2 Number of fears

Results from the PBQ seem to indicate that parents underestimate the number of fears their children are experiencing. According to the FLM (see Table 8), children reported an average number of 2.37 fears (SD = 0.875). Parents (see Table 9) reported an average of only 1.22 fears (SD = 0.875). The Wilcoxon Signed Ranks Test was used to determine whether there is a statistically significant difference between the number of fears as reported by the children and the number of fears as reported by the parents. The results of the Wilcoxon Signed Ranks Test indicated that there was a statistically significant difference between the number of fears as reported by the children and the number of fears as reported by the parents (see Table 10). This finding is in accordance with previous research that found a significant underestimate by parents regarding the number of fears their children experience (Keller, 2001; Muris et al., 2001).

According to the FLM (see Table 8), boys reported an average number of 2.28 fears ($SD = 0.882$) and girls 2.46 fears ($SD = 0.869$). Parents (see Table 9) reported an average of only 1.20 fears ($SD = 0.696$) for the boys and 1.23 fears ($SD = 0.805$) for the girls. The Wilcoxon Signed Ranks Test was used to determine whether there is a statistically significant difference between the number of fears expressed by the children (according to gender) and the parents. Results indicated that there is a statistically significant difference between the number of fears as reported by the children (according to gender) and the number of fears as reported by the parents (see Table 10). This finding is similar to previous research that reports a significant underestimate by parents regarding the number of fears experienced by their children (Keller, 2001; Muris et al., 2001).

In terms of the social learning theory and Rachman's three pathways to fear theory, this tendency on the part of parents to underestimate the number of fears experienced by their children, may be attributed to the personal experiences of the children. Although children and parents share a similar physical and geographical environment, with parents having a relative accurate understanding of the content of their children's fears, parents may be unaware of the precise effect of these direct experiences on the children which could account for their underestimating the number of fears.

6.4.3 Intensity of fears

Children reported an average intensity of fears of 2.88 ($SD = 0.361$) on the FLM (see Table 16). Results from the PBQ (see Table 17) indicated an average intensity of 2.71 fears ($SD = 0.610$). The results of the Wilcoxon Signed Ranks Test indicated that there was no statistically significant difference between the intensity of fears as reported by the children and the intensity of fears as reported by the parents (see Table 18).

Boys reported an average fear intensity of 2.88 ($SD = 0.324$) and girls an average intensity of 2.88 ($SD = 0.400$) on the FLM (see Table 16). Results from the PBQ (see Table 17) indicated an average intensity of 2.70 fears ($SD = 0.571$) for boys and 2.71 ($SD = 0.643$) for girls. Results for the Mann-Whitney Test indicated that there was no statistically significant difference between gender regarding the intensity of fears as reported by the children and by their parents (see Table 19).

When the social learning theory is applied to the current study, it is expected that girls should display higher fear intensities than boys. According to research gender role orientation and gender expectations may influence the expressing of fears by children (Ginsburg & Silverman, 2000). According to Gullone

and King (1993) a possible explanation for the differences in fears between gender may largely be ascribed to gender stereotypes and social learning, and not inherent gender differences. Furthermore, previous research reported gender differences regarding the intensity of fears, with girls reporting a higher level of fearfulness than boys (Burnham & Gullone, 1997; Ginsburg & Silverman, 2000; Gullone & King, 1993; King & Gullone, 1992; Muris, Bodden et al., 2003; Muris, Schmidt et al., 1999; Zohar & Felz, 2001). The results of the current study did not find any gender differences in either the child or the parental reports.

CHAPTER 7 CONCLUSION

The motivation for this research rested mainly on two factors: (1) to expand the current literature base by specifically conducting research in an under-researched area, that of middle childhood children (between the ages of 10 and 12 years) from a South African farming community and (2) to employ more child-friendly fear measuring instruments than traditional questionnaires, namely the Fear List Method (FLM), and the Koala Fear Questionnaire (KFQ). The current study added some important information to the current literature base regarding middle childhood fears within the specific context of a South African farming community. This was accomplished by employing more child-friendly fear measuring instruments, namely the FLM and KFQ.

Various theories were used in the context of the current study. The specific context in which research is conducted plays an important role. The ecological systems theory was mainly used in order to place the child within a specific context, that of the South African farming community. In addition, the social learning theory and Rachman's three pathways to fear theory was also used to offer an explanation of findings pertaining to aspects of fear, such as specific content, number and intensity of fears.

In addressing the four research questions, the following results were found:

Research question one: What are the content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region?

The largest fear category on the FLM was *Wild animals* (46.4%), on the KFQ1 (without visual cues) *That a car will run you over* (91.7%), and on the KFQ2 (with visual cues) *A scary man who wants to take you with him* (89.3%). The children reported an average number of 2.37, 13.92, and 13.36 fears on the FLM, KFQ1 (without visual cues) and the KFQ2 (with visual cues) respectively. Furthermore, the children reported an average fear intensity of 2.88, 66.40, and 66.17 on respectively the FLM, KFQ1 (without visual cues) and the KFQ2 (with visual cues).

Research question two: Are there any differences between the Koala Fear Questionnaire (KFQ) scores without visual cues (KFQ1) and the KFQ scores with visual cues (KFQ2)?

With regard to content, five individual items presented significant differences between the two forms of the KFQ. On the fear items *A scary movie*, *To be high up in the air*, and *Snakes* on the intensity level of *Very afraid*, there was a significant decline in the percentage of endorsement from the KFQ1 (without visual cues) to the KFQ2 (with visual cues). On the fear items *A scary man who wants to take you with him*, and *Fire and getting burned* there was a significant increase in the intensity level of *Very afraid* from the KFQ1 (without visual cues) to the KFQ2 (with visual cues). Children reported an average of 13.92 and 13.36 fears on the KFQ1 (without visual cues) and the KFQ2 (with visual cues) respectively. No statistically significant difference was found. For intensity of fears, children reported an average intensity of 66.40 and 66.17 on the KFQ1 (without visual cues) and the KFQ2 (with visual cues) respectively. No statistically significant difference was found.

Research question three: Are there gender differences regarding content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region?

The FLM indicated that fears pertaining to animals accounted for 58.2% of all fears expressed by the boys and for 63.4% of the fears expressed by the girls. On the KFQ1 (without visual cues) the largest fear item for the boys was *That a car will run you over* (95.3%) and for girls *Snakes* (92.7%). On the KFQ2 (with visual cues) the largest fear item for the boys was *That a car will run you over* (90.7%) and for the girls *When you get lost and you are without your mom and dad* (90.2%). On the FLM, boys reported an average number of 2.28 fears and girls an average number of 2.46 fears. No statistically significant difference was found. On the KFQ1 (without visual cues), the boys reported an average of 13.19 fears and the girls 14.68 fears. On the KFQ2 (with visual cues) boys reported an average of 12.77 fears and girls 13.98 fears. No statistically significant difference was found between gender on either the KFQ1 (without visual cues) or the KFQ2 (with visual cues). On the FLM, boys reported an average fear intensity of 2.88 and girls an average intensity of 2.88. On the KFQ1 (without visual cues), boys reported an average fear intensity of 64.56, while girls reported an average fear intensity of 68.34. On the KFQ2 (with visual cues) boys reported an average fear intensity of 64.93 and girls an average of 67.46. No statistically significant difference between gender was found on either the KFQ1 (without visual cues) or the KFQ2 (with visual cues).

Research question four: **Are there differences regarding content, number and intensity of fears of a group of middle childhood children from a South African farming community in the Stellenbosch region as reported in child reports and parental reports?**

Results from the FLM indicated *Wild animals* (46.4%) to be the largest fear category. The PBQ also indicated *Wild animals* (31.4%) as the largest fear category, which indicated a relative accurate estimate by parents regarding their children's fear content. With regard to number of fears, on the FLM children reported an average number of 2.37 fears. Parents reported an average of only 1.22 fears. A statistically significant difference between the number of fears as reported by the children and the number of fears as reported by the parents was found. Children reported an average intensity of fears of 2.88 on the FLM with parents reported an average intensity of 2.71 fears on the PBQ. No statistically significant difference between the intensity of fears as reported by the children and the intensity of fears as reported by the parents was found.

To conclude, the following findings of this study were in accordance with previous research, namely: (1) the content of fears as measured by the FLM, and (2) parents reporting an underestimate of children's number of fears. Other aspects varied from previous research, such as: (1) the number of fears as measured by the FLM, (2) the intensity of fears as measured by the KFQ, (3) differences between gender with regard to number of fears, measured by the FLM, and (4) parental perceptions regarding the content of fears.

One crucial finding of the current study was the difference in results between the KFQ1 and the KFQ2, specifically with regard to the five individual items (namely, *A scary movie*, *To be high up in the air*, *Snakes*, *A scary man who wants to take you with him*, and *Fire and getting burned*) on which statistical differences were found. For future studies it would be beneficial to investigate the effect of the visual representations used in the KFQ and to evaluate the effect of these visual cues on the reporting of fears by children.

The current study was limited to a small sample of children (N = 84) and parents (N = 51) and a recommendation for future studies entails a considerable increase in sample size. A further limitation is that only two child fear measures (the FLM and KFQ) and one parental report questionnaire were used. It is recommended that future studies should potentially employ more measures, which may provide a wider range of results.

The findings of the current study have added to the current literature base and it is hoped that these results could play a future role in informing and directing further research aimed at a further expansion of the literature base and would eventually lead to the development of intervention programmes for children in this crucial stage of middle childhood functioning and for this specific challenging context, that of a South African farming community. As aspects of fear, pertaining to the content, number and intensity of fears within the specific context of the current study are better understood, future research on the origins of these fears, as well as possible coping mechanisms used by the children, is needed. This information could then be employed in the future development of intervention programmes.

References

- Albano, A.M., Causey, D., & Carter, B.D. (2002). Fear and anxiety in children. In C.E. Walker, & M.C. Roberts (Eds.), *Handbook of clinical child psychology* (pp. 291-310). New York: Wiley.
- American Psychological Association (2001). *Publication manual of the American Psychological Association* (5th ed.). Washington DC: Author.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.
- Bauer, D.H. (1976). An exploratory study of developmental changes in childrens' fears. *Journal of Child Psychology and Psychiatry*, 17, 69-74.
- Berger, K.S. (2000). *The developing person: Through the life span*. New York, NY: Worth Publishers.
- Botha, A., Van Ede, D.M., Louw, A.E., Louw D.A., & Ferns, I. (2001). Die Kleutertydperk. In D.A. Louw, D.M. Van Ede, & A.E. Louw (Eds.), *Menslike ontwikkeling* (pp. 237-322). Kaapstad: Kagiso Tersiêr.
- Bouldin, P., & Pratt, C. (1998). Utilising parent report to investigate young childrens' fears: A modification of the Fear Survey Schedule for Children-II: A research note. *Journal of Child Psychology and Psychiatry*, 39(2), 271-277.
- Brand, H.J. (1991). Correlation for scores on revised test of visual-motor integration and copying test in a South African sample. *Perceptual and Motor Skills*, 73, 225-226.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Bukatko, D., & Daehler, M.W. (1998). *Child development: A thematic approach*. Boston: Houghton Mifflin Company.
- Burkhardt, K. (2002). *Fears in a selected group of middle childhood South African children: A cross-cultural study*. Unpublished master's thesis, Univeristy of Stellenbosch.
- Burkhardt, K. (2003). *The fears expressed and coping mechanisms of a selected group of middle childhood South African children living in a children's home*. Unpublished master's thesis, University of Stellenbosch.
- Burkhardt, K., Loxton, H., & Muris, P. (2003). Fears and fearfulness in South-African children. *Behaviour Change*, 20(2), 94-102.

- Burnham, J.J., & Gullone, E. (1997). The Fear Survey Schedule for Children-II: A Psychometric investigation with American data. *Behavioral Research and Therapy*, 35(2), 165-173.
- Chan, P.W. (2000). Relationship of visual motor development and academic performance of young children in Hong Kong assessed on the Bender-Gestalt test. *Perceptual and Motor Skills*, 90, 209-214.
- Craig, G.J. (1996). *Human development* (7th ed.). Upper Saddle River, New Jersey: Prentice Hall Inc.
- Du Plessis, M. (2006). The origins of fears in a selected group of middle childhood South Africa children. Unpublished master's thesis, University of Stellenbosch.
- Dunn, M., Loxton, H., & Naidoo, A. (2006). Correlations of scores on the developmental test of visual-motor intergration and copying test in a South African multi-ethnic preschool sample. *Perceptual and Motor Skills*, 103, 951-958.
- Erikson, E.H. (1963). *Childhood and society*. (2nd ed.). New York: W.W Norton and Copmany Incorporated.
- Field, A. (2003). *Discovering statistics using SPSS for windows*. London: SAGE Publications.
- George, D., & Mallery, P. (1999). *SPSS for windows. Step by step. A simple guide and reference*. Boston: Allyn and Bacon.
- Ginsburg, G.S., & Silverman, W.K. (2000). Gender role orientation and fearfulness in children with anxiety disorders. *Journal of Anxiety Disorders*, 14(1), 57-67.
- Gruber, H.E., & Vonèche, J.J. (1977). *The essential Piaget*. New York, USA: Basic Books, Inc.
- Gullone, E. (1999). The assessment of normal fear in children and adolescents. *Clinical Child and Family Psychology Review*, 2(2), 91-106.
- Gullone, E. (2000). The development of normal fear: A century of research. *Clinical Psychology Review*, 20(4), 429-451.
- Gullone, E., & King, N.J. (1993). The fears of youth in the 1990s: Contemporary normative data. *Journal of Genetic Psychology*, 154(2), 137-154.
- Gullone, E., & King, N.J. (1997). Three-year follow-up of normal fear in children and adolescents aged 7 to 18 years. *British Journal of Developmental Psychology*, 15, 97-111.
- Hall, G.S. (1897). A study of fears. *American Journal of Psychology*, 8(2), 147-249.

- Hanekom, J.D.M. (1991). *Die evaluering van skoolgereedheid met spesiale verwysing na die Junior Suid-Afrikaanse Individuele Skale (JSAIS) en die Aanlegtoets vir Skoolbeginners (ASB)*. Unpublished doctoral dissertation, University of Stellenbosch.
- Hergenhahn, B.R., & Olson, M.H. (2003). *An introduction to theories of personality*. Upper Saddle River, New Jersey: Prentice Hall.
- Jersild, A.T., & Holmes, F.B. (1935). *Children's fears*. New York: Teachers College, Columbia University.
- Jones, E.A., & Borgers, S. (1988). Parent perceptions of childrens' fears. *Elementary School Guidance and Counseling, 23*, 10-15.
- Keller, S.R. (2001). *Selfgerapporteerde vrese van 'n geselekteerde groep voorskoolse kinders in 'n lae tot middel sosio-ekonomiese status gebied*. Unpublished master's thesis, University of Stellenbosch.
- King, N.J., & Gullone, E. (1992). Manifest anxiety and fearfulness in children and adolescents. *Journal of Genetic Psychology, 153*(1), 63-73.
- Lapouse, R., & Monk, M.A. (1959). Fears and worries in a representative sample of children. *American Journal of Orthopsychiatry, 29*, 803-818.
- Lotz, L., Loxton, H., & Naidoo, A. (2005). Visual-motor integration functioning in a South African middle childhood sample. *Journal of Child and Adolescent Mental Health, 17*(2), 63-67.
- Louw, A. (1998). Ontwikkelsielkunde. In D.A. Louw, & D.J.A. Edwards (Eds.), *Sielkunde: 'n inleiding vir studente in Suider-Afrika* (pp. 449-509). Johannesburg: Heinemann.
- Louw, D.A., Van Ede, D.M., Ferns, I., Schoeman, W.J., & Wait, J. (2001). Die middelkinderjare. In D.A. Louw, D.M. van Ede, & A.E. Louw (Eds.), *Menslike ontwikkeling* (pp325-383). Kaapstad: Kagiso Tersiër.
- Loxton, H. (2004). *Expressed fears and coping mechanisms of a selected group of preschool children*. Unpublished doctoral dissertation, University of Stellenbosch.
- Marks, I.M. (1987). *Fears, phobias, and rituals. Panic, anxiety, and their disorders*. New York: Oxford University Press.
- Martalas, A. (1999). *An exploratory study of the expressed fears of preschool children*. Unpublished Master's thesis, University of Stellenbosch.

- Mash, E.J., & Wolfe, D.A. (2005). *Abnormal child psychology*. Belmont: Thomson-Wadsworth.
- McCathie, H., & Spence, S.H. (1991). What is the revised fear survey schedule for children measuring? *Behaviour Research and Therapy*, 29(5), 495-502.
- Meyer, W.F., & Van Ede, D.M. (2001). Ontwikkelingsteorieë. In D.A. Louw, D.M. van Ede, & A.E. Louw (Eds.), *Menslike ontwikkeling* (pp. 43-98). Kaapstad: Kagiso Tersiër.
- Miller, L.C., Barrett, C.L., Hampe, E., & Noble, H. (1972). Comparison of reciprocal inhibition, psychotherapy, and waiting list control for phobic children. *Journal of Abnormal Psychology*, 79(3), 269-279.
- Muris, P. (2002). The Koala Fear Questionnaire: It's relationship with fear of storms and hurricanes in 4- to 14-year old Antillean children. *Journal of Psychopathology and Behavioral Assessment*, 24(3), 145-150.
- Muris, P., Bodden, D., Merckelbach, H., Ollendick, T.H., & King, N. (2003). Fear of the beast: A prospective study on the effects of negative information on childhood fear. *Behaviour Research and Therapy*, 41(2), 195-208.
- Muris, P., Loxton, H., Neumann, A., Du Plessis, M., King, N., & Ollendick, T. (2006). DSM-defined anxiety disorders symptoms in South African youths: Their assessment and relationship with perceived parental rearing behaviors. *Behaviour Research and Therapy*, 44(6), 883-896.
- Muris, P., Meesters, C., Mayer, B., Bogie, N., Luijten, M., Geebelen, E., Bessems, J., & Smit, C. (2003). The koala fears questionnaire: A standardized self-report scale for assessing fears and fearfulness in pre-school and primary school children. *Behaviour Research and Therapy*, 41(5), 597- 617.
- Muris, P., Meesters, C., Merckelbach, H., & Hülsenbeck, P. (2000). Worry in children is related to perceived parental rearing and attachment. *Behaviour Research and Therapy*, 38(5), 487-497.
- Muris, P., & Merckelbach, H. (2000). How common are childhood fears? II. The parent's point of view. *Behaviour Research and Therapy*, 38(8), 813-818.
- Muris, P., Merckelbach, H., & Collaris, R. (1997). Common childhood fears and their origins. *Behaviour Research and Therapy*, 35(10), 929-937.

- Muris, P., Merckelbach, H., Gadet, B., & Moulert, V. (2000). Fears, worries, and scary dreams in 4- to 12-year-old children: Their content, developmental pattern, and origins. *Journal of Clinical Child Psychology, 29*(1), 43-52.
- Muris, P., Merckelbach, H., & Luijten, M. (2002). The connection between cognitive development and specific fears and worries in normal children and children with below-average intellectual abilities: A preliminary study. *Behaviour and Research Therapy, 40*(1), 37-56.
- Muris, P., Merckelbach, H., Mayer, B., & Prins, E. (2000). How serious are common childhood fears. *Behaviour Research and Therapy, 38*(3), 217-118.
- Muris, P., Merckelbach, H., Meesters, C., & Van Lier, P. (1997). What do children fear most? *Journal of Behaviour Therapy and Experimental Psychiatry, 28*(4), 263-267.
- Muris, P., Merckelbach, H., Ollendick, T.H., King, N.J., & Bogie, N. (2001). Childrens' nighttime fears: Parent-child ratings of frequency, content, origins, coping behaviours and severity. *Behaviour Research and Therapy, 39*(1), 13-28.
- Muris, P., & Ollendick, T.H. (2002). The assessment of contemporary fears in adolescents using a modified version of the Fear Survey Schedule for Children-Revised. *Journal of Anxiety Disorders, 16*(6), 567-584.
- Muris, P., Schimdt, H., Engelbrecht, P., & Perold, M. (2002). DSM-IV-Defined Anxiety Disorder symptoms in South Africa Children. *Journal of the American Academy of Child and Adolescent Psychiatry, 41*, 1360-1368.
- Muris, P., Schmidt, H., & Merckelbach, H. (1999). The structure of specific phobia symptoms among children and adolescents. *Behaviour Research and Therapy, 37*(9), 863-868.
- National Programme of Action for children in South Africa (2001). *A report on the state of the nations children*. National Programme for Action for children in South Africa.
- Ollendick, T.H., & King, N.J. (1994). Fears and their level of interference in adolescents. *Behaviour Research and Therapy, 32*(6), 635-638.
- Ollendick, T.H., King, N.J., & Frary, R.B. (1989). Fears in children and adolescents: Reliability and generalizability across gender, age and nationality. *Behaviour Research and Therapy, 27*(1), 19-26.

- Ollendick, T.H., Matson, J.L., & Helsel, W.L. (1985). Fears in children and adolescents: Normative data. *Behaviour Research and Therapy*, 23(4), 465-467.
- Ollendick, T.H., Yule, W., & Ollier, K. (1991). Fears in British children and their relationship to manifest anxiety and depression. *Behaviour Research and Therapy*, 32(2), 321-331.
- Piaget, J. (1971). *Biology and knowledge*. Chicago: University of Chicago Press.
- Piaget, J. (1974). *The child and reality*. London, UK: Frederick Muller LTD.
- Piaget, J., & Inhelder, B. (1969). *The psychology of the child*. London, UK: Routledge & Kegan Paul.
- Pulaski, M.A.S. (1971). *Understanding Piaget: An introduction to children's cognitive development*. New York, USA: Harper & Row, Publishers.
- Rachman, S. (1977). The conditioning theory of fear acquisition: A critical examination. *Behaviour Research and Therapy*, 15(5), 375-387.
- Rachman, S.J. (1990). *Fear and courage*. New York, USA: W.H. Freeman and company.
- Reber, A.S., & Reber, E. (2001). *The Penguin dictionary of psychology*. Rosebank, South Africa: Penguin Books.
- Reifsnider, E., Gallagher, M., & Forgione, B. (2005). Using ecological models in research on health disparities. *Journal of Professional Nursing*, 21(4), 216-222.
- Sawchuk, C.N., Lohr, J.M., Westendorf, D.H., Meunier, S.A., & Tolin, D.F. (2002). Emotional responding to fearful and disgusting stimuli in specific phobias. *Behaviour Research and Therapy*, 40(9), 1031-1046.
- Scherer, M.W., & Nakamura, C.Y. (1968). A fear survey schedule for children (FSS-FC): A factor analytic comparison with manifest anxiety (CMAS). *Behaviour Research and Therapy*, 6, 173-182.
- South African Police Service. (2005). *Crime in the RSA per police area for April to March 2001/2002 to 2004/2005*. Retrieved May 10, 2006, from http://www.saps.gov.za/statistics/report/crimestats/2005/_pdf
- Sarafino, E.P. (1986). *Fears of childhood: A guide to recognizing and reducing fearful states in children*. New York: Human Science Press Incorporated.

- Shore, G.N., & Rapport, M.D. (1998). The Fear Survey Schedule for Children -Revised (FSSC-HI): Ethnocultural variations in children's fearfulness. *Journal of Anxiety Disorders, 12*(5), 437-461.
- Spence, S.H., & McCathie, H. (1993). The stability of fears in children: A two-year prospective study: A research note. *Journal of Child Psychology and Psychiatry, 34*(4), 579-585.
- Statistics South Africa (2003). *Census 2001: Census in brief / Statistics South Africa*. Pretoria, Statistics South Africa. Retrieved August 28, 2007, from <http://www.statssa.gov.za>
- Tennant, A.J. (1986). *Visual-motor perception: A correlational study of specific measures for preschool South African children*. Unpublished master's thesis, University of Port Elizabeth.
- The Presidency. (2000). *The integrated sustainable rural development strategy (ISRDS)*. Retrieved May 11, 2006, from <http://www.info.gov.za/otherdocs/2000/isrds.pdf>
- Van der Hoven, A. (2001). Domestic violence in South Africa. *Acta Criminologica, 14*(3), 16-28.
- Vorster, M.H. (1994). *Die gebruik van die Beery-Ontwikkelingstoets en die Natekentoets as meetinstrumente van visueel-motoriese integrasie by 'n groep voorskoolse kinders*. Unpublished master's thesis, University of Stellenbosch.
- Wait, J. (2004). Die middel-kinderjare. In J. Wait, J.C. Mayer, & H.S. Loxton (Eds.), *Menslike ontwikkeling: 'n Psigososiale perspektief* (pp. 131-149). Parow Oos: Ebony Books.
- Waters, A.M., Lipp, O.V., & Spence, S.H. (2004). Attentional bias toward fear-related stimuli: An investigation with nonselected children and adults and children with anxiety disorders. *Journal of Experimental Child Psychology, 89*(4), 320-337.
- Zohar, A.H., & Felz, L. (2001). Ritualistic behaviour in young children. *Journal of Abnormal Child Psychology, 29*(2), 121-128.