APPLYING ATTACHMENT THEORY TO EXPLORE THE EMOTION REGULATION CHARACTERISTICS OF A CHILD DIAGNOSED WITH ADHD

ALMARIÉ VAN HUYSSTEEN

B Prim Ed (General Education) B Ed Hons (Ed Psych)

Thesis presented in partial fulfilment of the requirements

for the degree of

MASTER OF EDUCATION (EDUCATIONAL PSYCHOLOGY)
(M Ed Psych)

at

STELLENBOSCH UNIVERSITY

SUPERVISORS: MS CHARMAINE LOUW,
MS ELZAN FRANK &
PROF RONA NEWMARK

DECEMBER 2009

DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

....

SIGNATURE **DATE**

Copyright © 2009 Stellenbosch University

All rights reserved

ABSTRACT

Bowlby (1969) described infant attachment as the emotional bond that ties the infant to one or a few figures across time and distance. He claimed that internal working models are shaped by early experiences and that attachment behaviour is programmed within these models. According to Bowlby, internal working models are carried forward and have an effect on the development of personality, emotion regulation characteristics and behaviour later in life (Goldberg, 2000). Attachment Theory and emotion regulation are closely linked. The parent-child relationship plays an important role in the development of emotion regulation skills. According to research and subsequent literature, children with attention deficit/hyperactivity disorder (ADHD) have difficulty with emotion regulation. A limited number of studies have focused on the emotion regulation characteristics of children with ADHD, using Attachment Theory as lens. In this study, Attachment Theory was applied to explore the emotion regulation characteristics of a ten-year-old girl with ADHD. A series of observations were central to the process of producing data, as observation plays an eminent role in the history of attachment research. Within the series of observations, together with three semi-structured interviews, the child's emotion regulation characteristics were identified. The parent-child relationship and the parents' level of reflective functioning played a significant role to identify the characteristics of emotion regulation. A literature review and information from documents (e.g. reports from multi-disciplinary professionals) contributed to the validity of the findings. It was found that the girl with ADHD was significantly insecure in her general functioning. The themes that emerged elicited the interface and interaction between attachment behaviour, emotion regulation and ADHD. Future research should focus on Attachment Theory and ADHD. Parents, teachers and multi-disciplinary professionals who have or work with children diagnosed with ADHD will benefit from Attachment Theory.

OPSOMMING

Bowlby (1969) het gehegtheid of binding beskou as die emosionele band wat tussen die jong baba aan een of meer versorgers gevorm word. Hy het beweer dat hierdie band mettertyd ‘n interne model van gehegtheid vorm, en dat latere gedrag volgens hierdie modelle uitgeleef word. Volgens Bowlby word interne werksmodelle oorgedra van die primere versorger na die kind. Hierdie modelle het n uitwerking op spesifieke aspekte van die persoonlikheid, op die regulering van emosies en op gedrag binne verhoudings asook tydens konflik later in die lewe (Goldberg, 2000). 'n Noue verbintenis bestaan tussen gehegtheidsteorie en die regulering van emosie. Die ouer-kind-verhouding speel 'n belangrike rol in die ontwikkeling van vaardighede om emosie te reguleer. Volgens navorsing vind kinders met aandagtekort-hiperatiwiteitversteuring (ATHV) dit moeilik om emosies te reguleer. 'n Beperkte aantal studies gebruik gehegtheidsteorie om die regulering van emosies by kinders met ATHV na te vors. In hierdie studie is gehegtheidsteorie toegepas om die eienskappe van emosie – regulering by 'n tienjarige dogter wie met ATHV gediagnoseer is, te verken. 'n Reeks observasies was sentraal tot die proses van dataversameling, omdat observasie 'n besondere rol in die geskiedenis van gehegtheidsnavorsing speel. Binne ‘n reeks van waarnemings, tesame met drie semi-gestruktureerde onderhoude, is die eienskappe van die kind se regulering van emosies geïdentifiseer. Die ouer-kind-verhouding en die ouers se vlak van reflektiewe funksionering speel 'n belangrike rol in die identifisering van eienskappe om emosie te reguleer. 'n Literatuuroorsig en inligting uit dokumente (bv. verslae van multidissiplinêre professionele persone) het bygedra tot die geldigheid van die bevindings. Dit is gevind dat die dogter met ATHV beduidend onveilig in haar algemene funksionering was. Die temas wat na vore gekom het, het die skakeling en interaksie tussen gehegtheidsgedrag, die regulering van emosie en ATHV aan die lig gebring. Ouers, onderwysers en multidissiplinêre professionele persone wat kinders het of wat werk met kinders wat met ATHV gediagnoseer is, sal baat vind by gehegtheidsteorie.

ACKNOWLEDGEMENTS

I would like to thank the following persons for their role in the realisation of this study:

- Ms Charmaine Louw, Ms Elzan Frank and Prof. Rona Newmark for their competent supervision, guidance, advice and support.
- The participating family for their willingness to take part in this study.
- Danie Steyl and Ms Emmely Herbst for language and technical editing respectively.
- My elder sister Truida, for her inspiration and encouragement in pursuing this career.
- Margie and Bella, for their endless support and company in Stellenbosch.
- My family and friends for their patience, encouragement and love.

This work is dedicated to my parents,

Pieter and Karina van Huyssteen

for their unconditional support and for having my mind in their mind.

INDEX

CHAPTER 1

1.1 INTRODUCTION…………………………………………………………...... 1
1.2 RATIONALE OF THE STUDY……………………………………………… 1
1.3 THE RESEARCH QUESTION………………………………………………. 4
1.4 AIM OF THE RESEARCH…………………………………………………. 5
1.5 THE ROLE OF THE RESEARCHER……………………………………….. 6
1.6 RESEARCH PARADIGM…………………………………………………… 7
1.7 RESEARCH DESIGN……………………………………………………… 7
1.8 RESEARCH METHODOLOGY…………………………………………… 9
1.8.1 Data Production ………………………………………………………………. 9
1.8.2 Data Analysis ………………………………………………………………. 10
1.8.3 Data Verification …………………………………………………………… 11
1.9 ETHICAL CONSIDERATIONS…………………………………………… 12
1.10 CLARIFICATION OF TERMINOLOGY…………………………………….. 13
1.11 REFLECTION……………………………………………………………….. 15
1.12 STRUCTURE OF PRESENTATION……………………………………… 15

CHAPTER 2

2.1 INTRODUCTION…………………………………………………………. 17
2.2 ATTACHMENT THEORY………………………………………………….. 17
2.2.1 Introduction………………………………………………………………… 17
2.2.2 The Origins of Attachment Theory: John Bowlby (1907-1990)…………… 18
2.2.2.1 Instinctual Needs and Attachment Behaviour…………………………… 20
2.2.2.2 Attachment…………………………………………………………………… 21
2.2.2.3 Internal Working Models…………………………………………………. 21
2.2.3 Mary D. Salter Ainsworth (1913-1999)……………………………………….. 22
2.2.3.1 Strange Situation Test…………………………………………………….. 23
2.2.3.2 Maternal Sensitivity Scales………………………………………………. 28
2.2.3.3 Emotion Regulation………………………………………………………. 28
2.2.4 Mary Main…………………………………………………………………… 33
2.2.4.1 Adult Attachment Interview………………………………………………. 33
2.2.4.2 Reflective Functioning…………………………………………………….. 35
2.2.5 Attachment Theory within the Framework of Intersubjectivity…………….. 38

2.2.6 The Psychobiology of Attachment…………………………………………….. 41
2.2.7 The Psychological Concept of Mirroring and Reflective Functioning……. 43
2.3 ATTENTION DEFICIT/HYPERACTIVITY DISORDER……………………. 45
2.3.1 Appearance and Clinical Features……………………………………………. 45
2.3.2 Diagnostic Criteria……………………………………………………………… 47
2.3.3 Etiology of ADHD……………………………………………………………….. 50
2.3.4 Prevalence………………………………………………………………………. 51
2.3.5 Gender…………………………………………………………………………… 52
2.3.6 Related Characteristics………………………………………………………… 52
2.3.7 Co-morbid Psychological Disorders…………………………………………….. 52
2.4 ADHD AND EMOTION REGULATION………………………………………. 55
2.5 STUDIES ON ATTACHMENT THEORY AND ADHD……………………… 58
2.6 CONCLUSION……………………………………………………………………….. 64

CHAPTER 3

3.1 INTRODUCTION……………………………………………………………………. 65
3.2 RESEARCH QUESTION AND AIMS………………………………………… 65
3.3 RESEARCH PARADIGM……………………………………………………….. 67
3.4 RESEARCH DESIGN…………………………………………………………… 68
3.5 RESEARCH METHOD………………………………………………………….. 70
3.5.1 Single Case Study………………………………………………………………. 70
3.5.2 Selection of Participants (Selection Criteria)………………………………… 72
3.5.3 Setting…………………………………………………………………………… 72
3.5.4 Data-production Techniques…………………………………………………….. 74
3.5.5 Data Analysis……………………………………………………………………. 79
3.5.6 Data Verification ………………………………………………………………. 80
3.5.7 The Role of the Researcher…………………………………………………… 82
3.6 ETHICAL CONSIDERATIONS………………………………………………… 83
3.7 SUMMARY……………………………………………………………………… 84

CHAPTER 4

4.1 INTRODUCTION……………………………………………………………… 85
4.2 THE PARTICIPANTS, SETTING AND PROCEDURE OF THE STUDY….. 85
4.3 PRESENTATION OF THE FINDINGS……………………………………….. 86
4.3.1 Profile of the Child……………………………………………………………. 88

4.3.2 Family Background and Developmental History…………………………….. 89
4.3.3 Themes………………………………………………………………………… 90
4.3.4 Additional, Elucidatory Categories of Amy's Functioning and Associated Needs ……………………………………………………………… 104
4.4 A CRITICAL REFLECTION ON THE FINDINGS…………………………… 117
4.5 CONCLUSION……………………………………………………………….. 117

CHAPTER 5
5.1 INTRODUCTION……………………………………………………………. 118
5.2 SUMMARY OF CHAPTERS 1, 2, 3 AND 4…………………………………. 118
5.3 RESEARCH QUESTIONS…………………………………………………. 119
5.3.1 Primary Question…………………………………………………………. 119
5.3.2 Secondary Questions…………………………………………………….. 121
5.4 OBSERVING AN INSECURE CHILD………………………………………… 125
5.5 LINKING ATTACHMENT THEORY AND ADHD…………………………… 126
5.6 LIMITATIONS OF THE STUDY………………………………………………. 126
5.7 RECOMMENDATIONS……………………………………………………… 127
5.7.1 Future Research………………………………………………………….. 127
5.7.2 In General…………………………………………………………………. 127
5.8 REFLECTION……………………………………………………………….. 128

6. REFERENCES……………………………………………………………….. 129

LIST OF FIGURES AND TABLES

Figure 2.1: Attachment classification system………………………………….. 24

Figure 2.2: Adult attachment classifications…………………………………….. 34

Figure 2.3: Ladnier and Massanari's developmental model for the origin of ADHD (Levy, 2000, p. 35)……………………………………… 60

Figure 3.1: Genogram……………………………………………………………….. 72

Figure 4.1: Diagram of findings……………………………………………………. 85

Table 4.1: The presentation of the findings with correlating data production techniques……………………………………………………………………. 86

Table 4.2: Amy's consistent emotion regulation characteristics in relation to her consistent ADHD characteristics and attachment behaviour…... 89

Table 4.3: The participant's functioning, correlating needs and how they are currently met………………………………………………………….. 103

LIST OF ADDENDA

ADDENDUM A: Example of an Interview Transcription…………………………… 134
ADDENDUM B: Example of Observation Field Notes…………………………….. 148
ADDENDUM C: Ethical Consent Form……………………………………………… 161
ADDENDUM D: Participants' Consent Form………………………………………… 164
ADDENDUM E: Data Analysis – Coding System…………………………………… 168
ADDENDUM F: Adult Attachment Interview………………………………………… 170

CHAPTER 1
INTRODUCTION

1.1 INTRODUCTION

The infant develops a set of expectations of the parent's behaviour and responses to the infant's signals through daily experiences with the caregiver in the first year of life (Bowlby, 1969, 1973, 1980). This set of expectations can be referred to as an internal working model. Infants regulate their emotions according to the expectations set by the internal working model. The suggestion that the parent-child interaction might have an influence on emotion regulation indicates that there is a definite relationship between emotion regulation and the attachment pattern (Cassidy, 1994). According to Attachment Theory, one has to regulate one's emotions in order to achieve one's goal in maintaining proximity to an attachment figure, which entails that there has to be an adaptive nature to emotion regulation (Bowlby, 1969, 1973, 1980; Cassidy, 1994). Research has shown that children with attention deficit/hyperactivity disorder (ADHD) have difficulty regulating their emotions due to a general deficiency in behavioural inhibition and executive functioning (Barkley, 1997).

Chapter 1 begins with the rationale of this study. Next, the problem statement and research aims are introduced, followed by a description of the role of the researcher. The paradigm in which the study is placed is then described in some detail, followed by the design and methodology of this study. The ethical considerations, clarification of terminology and reflection then follow. A discussion of the structure of the presentation concludes chapter 1.

1.2 RATIONALE OF THE STUDY

John Bowlby (1907-1990), who developed Attachment Theory during his career as child psychiatrist and psycho-analyst, viewed the infant and the mother as participants in a consistent, self-regulating and mutually interacting system (Bowlby, 1969). He claimed

that, in order for an infant to grow up mentally healthy, the infant should experience an intimate, warm and continuous relationship with its mother (or primary caregiver) in which both find enjoyment and satisfaction. Bowlby argues that children (between six months and three years) elicit attachment behaviour, for instance when faced with unfamiliar situations, separation from primary caregivers or danger. The emotional bond that ties the infant to one or a few figures across time and distance describes infant attachment (Bowlby, 1969). Attachment behaviour is encoded in internal working models that are shaped by early experiences. Bowlby claims that these early experiences carry the internal models forward, which will have an effect on behaviour and personality later in life (Goldberg, 2000).

According to Bowlby, who was influenced by the work on "imprinting" done by Konrad Lorenz (1935) at the time, attachment behaviour is genetically programmed and essential for survival (Bowlby, 1969; Goldberg, 2000). To develop secure attachments, parents have to be attuned to the physical and emotional needs of the infant and respond to the infant's signals. The adult's ability to "read, interpret and respond to infant affect" provides a template for the infant to develop self-regulatory abilities (Feldman et al., as cited in Goldberg, 2000, p. 134). According to Goldberg (2000), caregivers can channel an infant's emotional expression through selective reinforcement, modelling and emotion-focused discourse.

In their later work, Bowlby and Mary Ainsworth (1978) introduced key elements in the development and identification of an attachment pattern between parent and child (Main, 1999). One of Ainsworth's most important contributions to Attachment Theory was to identify key features of parental care that help organise early secure base behaviour (Ainsworth, 1969a, 1969b; Goldberg, 2000). Attachment Theory was used as a theoretical perspective for this study.

> Attachment Theory combines contributions from ethology, developmental psychology, systems theory and psychoanalysis. It focuses on the fundamental early influences on the emotional development of the child and attempts to explain the development of and changes in strong emotional attachments between individuals throughout the lifecycle (Brisch, 2002, pp. 14-15).

Research has consistently shown the powerful contribution that parenting styles can make to produce and overcome problems related to ADHD (Barkley; Johnston & Mash; Whalen & Henker; Jacobvitz & Stroufe; Chess & Thomas, as cited in Mash and Wolfe, 2005). The significant relationship between the quality of the parent-child relationship in the first months of life, the quality of attachment at one year of age, school performance, levels of anxiety, sociability and even general health of children in primary and secondary school has been documented (Őngel, 2006).

Apart from biological and neurological claims, literature on psychology has extensively shown psychosocial explanations for ADHD (Őngel, 2006). Research evidence demonstrates that ADHD can be associated with complicated family environments, poor parenting and oppressive school and community environments. The behavioural characteristics of ADHD have been associated with family and parenting environments, for example family instability, the mother's use of general dissatisfaction and criticism, the father's hypercritical and destructive attitude, parental distress, parents who use aggressive behaviour, mothers who are critical of their difficult babies during infancy, a lack of affection towards infants, intense parenting styles, conflicting and negative parental behaviour specifically directed at the children and disrupted parent-child relationships (Őngel, 2006).

In their study, Clarke, Ungerer, Chahoud, Johnson and Stiefel (2002) investigated the relationship between attachment insecurity and ADHD. Jureidini (1996) claimed that recent literature at the time had neglected and failed to address the role of psychosocial issues and the quality of parenting in the aetiology of ADHD. According to Attachment Theory, the development of self-/emotion regulation skills is determined by the early parent-child relationship. According to Cassidy (1994), an infant's capacity to self-regulate his/her emotions is determined by the sensitive responsiveness of the caregiver in containing and regulating the infant's psychosocial states. Barkley (1997) confirms an infant's need for support in developing self-regulation skills by stating that children with ADHD have difficulty in integrating affective, motor and cognitive functions. He further describes ADHD as a disorder of self-regulation (Barkley, 1997). Research found that children with ADHD who have a secure attachment could develop a variety of competencies (such as self-/emotion regulation skills) with which children with ADHD usually have difficulty (Clarke et al., 2002). In a study, Andreou, Agapitou and

Karapetsas (2005) found that children with ADHD displayed poor verbal skills in comparison with control groups. Research has also found that children with ADHD struggle to understand emotion in language and that they struggle to read a scenario through a person's body language (Barkley, 2005).

Davis (as cited in Lloyd, Stead & Cohen, 2006) states that possible causes of ADHD are thought to be dietary, genetic, neurological as well as psychosocial and environmental. The functioning of a child diagnosed with ADHD is affected by a variety of factors, of which his/her environment and relationship with his/her primary caregivers are crucial. Attachment Theory has been linked to a number of studies on behavioural problems and specifically to conduct disorders, but a limited number of studies have been linked to the emotion regulation characteristics of children with ADHD (Erdman, 1998). Neven, Anderson & Godber (2002) did research in this field and emphasised the importance of the parent-child relationship in the development of a child's autonomy and self-regulation of affect. Experiential research is therefore necessary in looking at the attachment context of a child with ADHD and its related symptoms. The rationale of this study was to explore whether the nature of the emotion regulation characteristics of a 10-year-old girl diagnosed with ADHD can be linked to the parent-child attachment relationship. This rationale closely links to the problem statement, which is described next.

1.3 THE RESEARCH QUESTION

This study explored the emotion regulation characteristics of a child diagnosed with ADHD, using Attachment Theory as theoretical perspective. As mentioned in the previous section, very little research has been done regarding the emotion regulation characteristics of children diagnosed with ADHD and their attachment with their primary caregivers. During the first year of an infant's life, the role of the caregiver is to help the infant establish a set of internal expectations of caregiver responses to their overt behaviour. An important aspect of this is that the infant must learn to regulate his/her emotions, while seeking proximity to the caregiver. It is found that children with ADHD find it difficult to regulate and control their emotions due to a deficiency in behaviour inhibition (Barkley, 1997). This phenomenon has implications for the parent-child interaction and relationship in a family with a child who has ADHD. Therefore, it was

anticipated to explore the nature of the child's emotion regulation characteristics and the role of the parents in this study.

During the initial interview, I was informed that the girl with ADHD (Amy[*]), has two accompanying diagnoses, namely developmental coordination disorder (DCD) and sensory integration disorder (SID). These diagnoses have not been linked to research on Attachment Theory or seem to raise difficulties with emotion regulation. For the purpose of answering the research questions of this study, the focus was on the ADHD diagnosis. The accompanying diagnoses were merely considered as part of her profile and context, but not as intervening variables in her characteristics of emotion regulation.

The following primary question informed this study:

What are the emotion regulation characteristics of a 10-year-old girl diagnosed with ADHD, given the research on attachment and ADHD?

The following secondary questions will follow from the primary question:

- **What is the nature of self-regulation in the child who is diagnosed with ADHD?**
- **In which way are emotions and feelings among family members recognised and reflected?**
- **Are the parents able to reflect on their own emotions?**
- **In which way does the diagnosis of ADHD affect the parent's reflective functioning towards the child who is diagnosed?**
- **Does the child with the diagnoses claim specifically more time from the parents than the other children?**

With the research problem and question in mind, I shall elaborate on the aim of the study in the following section.

1.4 AIM OF THE RESEARCH

The aim of this study was to explore the emotion regulation characteristics of a child diagnosed with ADHD. In this study, I wanted to explore whether the parent-child

---

[*] Pseudonyms were used for the purpose of privacy and confidentiality.

attachment relationship could have an impact on the emotional display and emotion regulation of the child with ADHD. A further aim was to explore the nature of the parent-child interaction in this specific family. It was anticipated that patterns emerging from the data could highlight specific features in the parent-child attachment pattern that could affect the child diagnosed with ADHD.

The assumption that children diagnosed with ADHD struggle to express and regulate their emotions was explored in this study. The aim was to identify the child's characteristics of emotion regulation through detailed observation. It was further anticipated that the caregiver's response to the child's display and subsequent containment of emotions would be explored. It is expected that the research will contribute to a greater understanding of ADHD and the crucial influence of the parent-child attachment on the emotion regulation characteristics of a child diagnosed with ADHD.

1.5 THE ROLE OF THE RESEARCHER

During qualitative research, the researcher is involved in a process of creating and bringing emotional and psychological unity into an interpretive experience (Denzin & Lincoln, 2005). Denzin and Lincoln (2005) compare this process to that of making a quilt where the researcher has to stitch, edit and "put slices of reality together". As researcher, I had the responsibility to interpret the observations of the parent-child attachment relationship accurately in this study. "It is wise to keep in mind as you go into the field to observe that the consequences of the observation, the note taking and the reflection upon or the interpretation, are dependent on meticulous crafting of the recording of the observed site" (Henning, 2004, p. 82). The information from the literature review, semi-structured interviews (see Addendum A for an example of an interview transcription) and observations (see Addendum B for an example of observation field notes) were recorded accurately and interpreted to corroborate the data produced by these data-production techniques.

1.6 RESEARCH PARADIGM

This study was conducted within an interpretive/constructivist research paradigm. According to Mertens (1998), central to this paradigm is individuals' making sense of their personal experiences, and knowledge is thus constructed by the people involved in the research process. The researcher is confronted by the socially constructed realities of the participants and needs to understand and interpret the meanings individuals attach to their personal experiences. Thus, an interactive link exists between the researcher and the phenomenon that is researched. According to Terre Blanche & Kelly (1999), it is assumed that we can understand others' experiences by interacting with them, and that people's subjective experiences are real in the interpretive research approach. Terre Blanche and Kelly (1999) emphasise the importance of determining the nature of these experiences in the contexts they occur. They emphasise the importance of studying feelings, experiences, social situations and phenomena in their natural settings in order for interpretive researchers to make sense of them as they occur in the real world. Terre Blanche et al. (2006, p. 276) write that the "commitment to understanding human phenomena in context…is at the heart of interpretive research". This is confirmed by Johnson and Christensen (2008), who hold that the goal of an interpretive research paradigm is the understanding of a social phenomenon.

With this in mind, a qualitative research design was deemed appropriate for this study, which will be discussed in the next section of this chapter. Qualitative data were produced, which was in keeping with the interpretive/constructivist paradigm and research design (Mertens, 2005). In qualitative research, a wealth of descriptive data is produced through a variety of methods such as interviewing, observation and analysis of documents (Merriam, 2002). According to Merriam (2002), the interpretive/ constructivist researcher must provide the participant's background information and the contexts in which they are studied. In this study, understanding and interpreting the social phenomenon of parents and their child diagnosed with ADHD is the aim.

1.7 RESEARCH DESIGN

A research design describes a flexible set of guidelines that connect theoretical paradigms first to strategies of enquiry and second to methods for collecting empirical

material (Denzin & Lincoln, 2005). As explained in section 1.5, the appropriate research design for this study was a qualitative design. The aim of this study was to explore, discover and describe a certain phenomenon, which is characteristic of a qualitative research design (Johnson & Christensen, 2008). Johnson and Christensen (2008, p. 395) describe the purpose of a phenomenological study as obtaining an understanding of the participants’ "life-world" and their understanding of it. Therefore, access was gained to the participants’ experiences of a phenomenon (Johnson & Christensen, 2008). In order for the researcher to gain insight into the participants’ life experience, a single case study was used to provide a detailed account of this phenomenon. Case studies are intensive investigations of particular individuals, single families, communities, units or organisations. In this method of research, individuals are studied as individuals, not as members of a population. Careful and detailed observation allow for new ideas and assumptions to emerge (Lindegger, 2006).

In order to address and answer the research question, the participants had to meet specific selection criteria. Purposive sampling (see section 3.5.2 of chapter 3) as selection technique allowed the researcher to select the appropriate participants. The most important selection criterion was to select a family with a child who is diagnosed with ADHD. A further criterion was that the family had to consist of one or more primary caregivers (parents) and the child with ADHD. The participants of this study were an Afrikaans-speaking family consisting of a mother (34) who is seven months pregnant, a father (33), a ten-year-old girl diagnosed with ADHD and a three-year-old boy (see section 3.5.3 of chapter 3 for the genogram).

The context of a single family was explored and thoroughly described in this study; therefore, the findings and conclusions cannot be generalised to other families in the population with children who have ADHD (Mertens, 2005). I chose a single case study because it is practical for a study of this nature. A contextual strategy was deemed appropriate because the research findings will not be generalised (Lindegger, 2006). The parent-child interaction was observed during specific times of the day (e.g. before school, after school and at bedtime). These times were chosen specifically because high levels of interaction were expected to take place. These times are often also stressful. Reunion behaviour (see section 2.2.3.3 in chapter 2 for a discussion of the term) is particularly important in determining an attachment pattern.

According to Denzin and Lincoln (2005), qualitative research is inherently multi-method in focus. I made use of three main methods and one secondary method of data production in order to give credibility to my study.

1.8 RESEARCH METHODOLOGY

According to Henning (2004), methodology is about how we come to know, but in a very practical nature. "It means that we come to know by inquiring in certain ways" (Henning, 2004, p. 15)." In order to understand our world better, we use specific ways and methods as methodology. The philosophy of how we come to know is known as epistemology and the practice of coming to know is known as the methodology (Henning, 2004).

Babbie and Mouton (2001) confirm that it is important to use multiple sources of data when doing a case study. This involves using more than one method in order to enrich the content of the research process. Owing to the nature of this study, observation was the main method of data production. A literature review, semi-structured interviews and information from documents were additional to the observations in this study. A literature review was used to assist in formulating the research questions, explain theoretical underpinnings of the study and to stimulate new concepts and insights. The use of the literature review as a data production technique will be elaborated in section 3.5.4 of chapter 3.

1.8.1 Data Production

The three semi-structured interviews that took place during the fieldwork and data gathering were conducted with both parents at their home in Stellenbosch. The semi-structured interviews consisted of open-ended questions (see Addendum A). Audiocassette tape recordings were used to store the information, and these recordings were used to transcribe the information and answers verbatim. Research interviews are valuable in gaining a "joint knowledge of social processes and of the human condition" (Henning, 2004, p. 50). In a semi-structured interview, the researcher is a co-constructor of meaning and is responsible for transcribing the interview content objectively and accurately in order to interpret the data and answer the research

questions (Henning, 2004). The interviews were then followed by a series of observations.

As a method of data production, observation is relevant for a study exploring parent-child interaction and the attachment relationship, as in this single case study. The observations during Ainsworth's (1978) strange situation procedure (see section 2.2.3.1 in chapter 2) enabled her to detect three different patterns of infant attachment. These initial "25-minute structured laboratory observations" gathered valuable data and were soon used as an assessment tool to determine attachment patterns (Goldberg, 2000, pp. 7-8). Seeing that observation has been an anchor in the field of attachment research, it was deemed an appropriate method of data production for this study.

The observations were planned carefully and the family was involved in setting up a convenient timetable. The nine observations took place over a period of four weeks. The total duration of the observations was thirteen and a half hours (nine sessions of an hour and a half each). The sessions were conducted at specific times during weekdays, and one was conducted on a Saturday. Event sampling was used as a child observation technique (see Addendum B). This technique was appropriate for this study because attachment-related behaviours are more apparent during times of separation and reunion, and event sampling created the opportunity for child observations during these selected times (*Observation Techniques*, 2004).

Information from documents and artefacts was used as secondary data. According to Johnson and Christensen (2008, p. 217), "secondary data" is "existing data that was originally collected or left behind by a different person for a different reason". This existing data (medical reports from the paediatrician, occupational therapist, physiotherapist and school reports) confirmed the participant's diagnosis and elaborated on her developmental history.

1.8.2 Data Analysis

After the series of observations, the process of data analysis commenced. First, themes of attachment behaviour, informed by the literature review, were identified before starting with analysing the interviews and observations. These themes were identified

through the lens of Attachment Theory. Then the produced data (from interviews and observations) was analysed thematically by coding interview transcriptions and the observation field notes according to categories and themes. After analysing and interpreting the data from the observations, an external consultant was requested to interpret the observational data. We conversed and compared our interpretations of the data in order to ensure credibility and that the data has been interpreted thoroughly and accurately. This process was necessary to ensure that my interpretation was accurate and not biased. Further research recommendations were formulated after the process of analysis. Limitations of the research process were identified after formulating further research recommendations (see sections 5.6 and 5.7 of chapter 5).

1.8.3 Data Verification

The trustworthiness of research must be ensured to verify the accuracy of data and data analysis. Credibility, transferability, dependability and confirmability form part of this in the research process (Babbie and Mouton, 2001). Babbie and Mouton (2001, p. 278) refer to an "inquiry audit" when the researcher determines the acceptability and therefore proves the dependability of the inquiry. This was done through thoroughly examining documentation and monitoring the process of the study. The data, findings, interpretations and recommendations of the study were also examined to ensure that they are internally coherent. This process created credibility and dependability (Babbie & Mouton, 2001). In order to ensure further dependability, credibility and trustworthiness in this study, an external consultant was requested to "audit" and interpret the process of data analysis.

Denzin and Lincoln (2005) refer to triangulation as a process of clarifying meaning and verifying the repeatability of an observation or interpretation by using multiple perceptions. In this case, a literature review, semi-structured interviews and a series of observations as primary data-production techniques allowed for the process of triangulation. The process of triangulation will be elaborated in section 3.5.6 of Chapter 3.

The interpretive researcher has to encourage a variety of data and different methods of analysis in order to achieve validity (Henning, 2004). Case studies have limitations in

the sense that there may be problems with the validity of information, causal links are difficult to test, and generalisations cannot be made from a single case study (Lindegger, 2006).

1.9 ETHICAL CONSIDERATIONS

Regardless of whether participants volunteer for a study in social research, they should never be harmed. Social research represents an intrusion into people's lives. Moreover, it requires people to reveal personal information about them that will be shared with strangers. "If you are going to do social scientific research then you need to be aware of the general agreements among researchers about what's proper and improper in the conduct of scientific inquiry" (Babbie and Mouton, 2001, p. 520). Before I was able to commence with the study, I applied for ethical clearance from the Ethics Committee of Stellenbosch University. On 9 October 2008, the committee gave its consent for the study to proceed (see Addendum C). This process will be elaborated in section 3.6 of chapter 3.

I purposively selected one family with a child who has been diagnosed with ADHD. The parents signed an informed consent form (see Addendum D) and were willing to participate in the interview and observation process. The girl was asked whether she would be willing to participate in the study and then gave her verbal assent. The family was then given an opportunity to decide whether they wanted to participate in the study or not. They were fully informed about the process and what the research would entail.

It was ensured that all participants' identities remained anonymous; pseudonyms were used in this regard. Before participating, the participants were informed about the nature of the study and how and where the results would be produced. Before starting, the participants were also given an opportunity to ask any questions in case there were queries regarding data production, analysis and production of the findings. They were also informed that they were free to withdraw from the research at any time and that they were free to withhold any personal information from the researcher. The notes on the interviews and observations were readily available for the parents to read; therefore, they had the opportunity to verify or delete any information. In so doing, the dependability of the research content was enhanced.

1.10 CLARIFICATION OF TERMINOLOGY

Attachment Theory

According to Bowlby (1969, 1973, 1980), attachment is the invisible tie that binds individuals together over time and distance. Each person has another to use as a secure base or safety haven to explore from (Waters, Kondo-Ikemura, Posada & Richters, 1991). The person who serves as a secure base can be referred to as an attachment figure. Attachment behaviour refers to the variety of actions or conduct that a person engages in to obtain or maintain a desired proximity to their attachment figure (Bowlby, 1969). This behavioural system develops in the first year of life and is an instinctive and evolutionary function to ensure survival of the species. These behavioural systems organise cognition, affect and behaviour in attachment relationships (Waters et al., 1991).

Emotion Regulation

The inherent expectation of a person to be taken care of and kept safe from harm in times of distress is based on the emotional bond between two people and can be defined as attachment (Goldberg, 2000). Emotions and attachment are inextricably linked. Ainsworth's studies (1978) explored and investigated the process of regulating and expressing one's emotions (Goldberg, 2000). "Emotion regulation consists of the extrinsic and intrinsic processes for monitoring, evaluating and modifying emotional reactions, especially their intensive and temporal features, to accomplish one's goals" (Thompson as cited in Goldberg, 2000, p. 134).

Reflective Functioning

According to Steele and Steele (2008), psychoanalytic and developmental psychological viewpoints create an epistemic space for the initial development of the concept of reflective functioning (RF). RF refers to an adult's use of "mental state language (beliefs and desires)" when giving an account of their developmental history (Steele & Steele, 2008, p. 135). In using the Adult Attachment Interview in 1987, RF played a prominent role in measuring a person's "capacity to reflect on the motivational roots of behaviour of the self and others" (Steele & Steele, 2008, p. 138).

Internal Working Model

Bowlby (1980) writes that we take the self, significant others and the relationships between them, which are based on actual experiences, to construct internal models of the world (Goldberg, 2000). These internal working models direct and steer experiences to follow. Internal working models grant individuals a survival advantage and, therefore, allow a person to "attend to selected information, foresee future events and to construct plans" (Goldberg, 2000, p. 150). According to Bowlby (1973, p. 236), the formation of internal working models is "based on that person's forecast of how accessible and responsive his/her attachment figures are likely to be, should he/she turn to them for support". Main, Kaplan and Cassidy (1985, p. 77) write, "Internal working models are best conceived as structured processes serving to obtain or limit access to information."

Maternal Sensitivity Scales

According to Mary Ainsworth (1969a), the central issue to attachment development is maternal sensitivity. The primary caregiver's sensitivity to an infant's needs, from infancy to adulthood, the correct interpretations of signals and appropriate, prompt responses are crucial for the development of psychological security (Ainsworth, 1969a, 1969b). The cornerstone of attachment research is Ainsworth's dyadic concept of observing maternal and paternal sensitivity to the infant's communication (Grossmann & Grossmann, 1999). The four features of parental care on which Ainsworth focused were sensitivity to infant signals, co-operation versus interference with ongoing behaviour, psychological and physical availability and acceptance versus rejection of the infant's needs (Ainsworth, 1969a).

Attention Deficit/Hyperactivity Disorder

Attention deficit/hyperactivity disorder (ADHD) is the term that describes a developmental disorder of self-control in children (Barkley, 2005). In order to be diagnosed with ADHD, a child must be identified as having symptoms from two separate clusters, namely symptoms of inattention and/or symptoms of impulsivity-hyperactivity. Children with ADHD persistently display symptoms of inattention, impulsivity and hyperactivity that are inappropriate for their age. These symptoms are significantly severe and cause impairment in social, academic and/or occupational functioning. The symptoms must be present in at least two settings (e.g. at home and at

school) and must have been present before the age of seven (American Psychiatric Association, 2000; Barkley, 2005; Mash & Wolfe, 2005).

Developmental Coordination Disorder (DCD)

Developmental coordination disorder is characterised by low performance in activities that require motor coordination as is evident as early as infancy in some cases. The essential clinical feature is manifested in delays in developmental motor milestones, such as sitting, crawling, standing, walking, etc. (APA, 2000; Sadock & Sadock, 2003).

Sensory Integration Dysfunction (SID)

SID is a neurological disorder causing difficulties with the processing of sensory information. SID is the umbrella term encompassing three key categories, namely sensory modulation disorder (sensory underresponsiveness and overresponsiveness and sensory seeking), sensory discrimination disorder and sensory-based motor disorder (postural disorder and dyspraxia) (Stock-Kranowitz, 2005). See section 2.3.6 in chapter 2, for a further description of these disorders.

1.11 REFLECTION

In Chapter 1, I introduced the research and I placed the study in context. Next, I presented the research question and elaborated on its significance. The paradigm, research design and methodology that informed this study, data verification and ethical considerations were also described. The key concepts were clarified and, finally, I concluded with outlining the chapters. This chapter served as a framework for my entire study and gave me direction.

1.12 STRUCTURE OF PRESENTATION

Chapter 1 contextualises and discusses how the research was conducted; therefore, it introduces the nature of the study.

Chapter 2 consists of a detailed review of the relevant literature on Attachment Theory and ADHD, which are discussed. The literature review captures the most important information regarding the research question.

Chapter 3 explains the research methodology of the study.

In Chapter 4, the implementation and findings are presented. The produced data (from the literature review, observations, interviews and documents) are combined and recorded in the form of a coherent case discussion in this chapter.

A summary of the study is the introduction to chapter 5. Thereafter, the discussion and interpretation of the findings in answering the research questions are presented. Limitations of the study and recommendations regarding future studies on Attachment Theory and ADHD are informed and influenced by the interpretation of the findings. This chapter is concluded with final reflections of the researcher.

CHAPTER 2
LITERATURE REVIEW

2.1 INTRODUCTION

This chapter provides an overview of relevant research and theories concerning Attachment Theory and ADHD, and explores the potential link between them.

The following is addressed:

- The origins, development and rationale of Attachment Theory
- Attachment Theory within the framework of intersubjectivity
- The role of neurobiology in attachment
- Theoretical background and overview of the clinical features, diagnostic criteria, prevalence, gender distribution, related characteristics and co-morbid disorders of ADHD.
- The relationship between emotion regulation in ADHD and attachment
- Where does this study fit into the existing body of knowledge?

2.2 ATTACHMENT THEORY

2.2.1 Introduction

John Bowlby (1907-1990) transformed our thinking about the infant's tie to the mother through his work on the influence of separation, deprivation and bereavement on the psychological development of the child. Building on concepts from the disciplines of ethology, developmental psychology and psychoanalysis, Bowlby formulated the basic tenets of Attachment Theory in the late 1950's (Bowlby, 1969, 1973, 1980). From him we have core concepts, such as the term *attachment* and the *secure bond*. Mary Ainsworth extensively contributed to Bowlby's theories by developing pioneering methodology to test Bowlby's ideas, thereby expanding the theory. Ainsworth formulated the concept of maternal sensitivity to infant signals and the concept of infants exploring the world, using the attachment figure as a secure base in the strange

situation procedure. At a later stage, Mary Main (a student of Mary Ainsworth') made valuable contributions to Ainsworth's studies and introduced research on adult attachment styles. These concepts play a fundamental role in the identification of infant-mother attachment patterns (Bretherton, 1992).

2.2.2 The Origins of Attachment Theory: John Bowlby (1907-1990)

After graduating from the University of Cambridge in 1928, Bowlby volunteered to work at a school for maladjusted children. At that stage, Bowlby received training and instruction in developmental psychology. During his time at the school, Bowlby was inspired to pursue a career in psychiatry. He refers to his experience working with two specific boys (Bowlby, 1969). The one, who is described by Bowlby as withdrawn, isolated and affectionless and who had no constant mother-figure, was a teenager who had been expelled from his previous school. The other was a 7- or 8-year-old boy who is described as anxious and who apparently constantly followed Bowlby around. Subsequently Bowlby underwent training in psychoanalysis at the British Psycho-analytic Institute as part of his studies in medicine and psychiatry (Bretherton, 1992; Slade, 1999).

At the time, Bowlby was exposed to the work of Melanie Klein. Klein and her colleagues followed an object-relations approach. The Kleinian approach holds that a child's emotional problems are almost completely due to fantasies generated from internal conflict between aggressive and libidinal drives, rather than to events in the external world (Bretherton, 1992). Bowlby's findings during his training at the London Child Guidance Clinic brought him to believe that actual family experiences had a much greater impact on a child's general emotional well-being (Bretherton, 1992). He maintained that the response of the environment to the child's earliest needs and feelings determines the child's emotional well-being and psychological life (Slade, 1999). From here, Bowlby developed a strong theoretical and clinical interest in the intergenerational transmission of attachment relations, and in the possibility of helping parents in order to help their children. During an empirical study at the London Child Guidance Clinic, Bowlby found that clinic patients were often affectionless and prone to stealing, which he then linked to histories of maternal deprivation and separation (Bretherton, 1992).

The biologist Sir Julian Huxley started discussing ethology with Bowlby in 1951 (Karen, 1990). Bowlby read about the research and work of the modern ethologist, Konrad Lorenz, and became interested in the phenomenon by which newborn goslings become attached to the first moving object they see (Bowlby, 1956; Karen, 1990). Fascinated by ethological ideas, Bowlby then had a biological foundation for his belief that a child is instinctually '"primed"' to form a relationship with a consistent, dependable and ongoing attachment to a primary caregiver. If this lacks, or if the attachment is interrupted or lost, the infant will suffer grievously or even irreparably (Karen, 1990). In 1951, Bowlby hypothesised that the infant and young child should experience a warm, intimate and continuous relationship with his mother (or permanent mother substitute) in which both find satisfaction and enjoyment, and that lack of this experience may be to the detriment of the infant or young child's mental health. This proposition was highly controversial at the time. From an early point in the development of Attachment Theory, there was criticism of the lack of congruence of the theory with the various branches of psychoanalysis (Karen, 1990).

Building on concepts from ethology and developmental psychology, Bowlby presented his first formal statement of Attachment Theory to the British Psycho-analytic Society in London in the early 1960's (Bretherton, 1992). He presented the following three classic papers: "The Nature of the Child's Tie to His Mother" (1958), "Separation Anxiety" (1959) and "Grief and Mourning in Infancy and Early Childhood" (1960). In 1962, he completed two other papers on defensive processes and mourning. Together with the three papers mentioned previously, these represent the first basic blueprint of Attachment Theory (Bretherton, 1992).

According to Bowlby's trilogy on attachment and loss (Attachment, 1969; Separation, Anxiety and Anger, 1973; Loss, Sadness and Depression, 1980), there are four defining features of attachment bonds:

- First, proximity maintenance (being physically close to the attachment figure)
- Second, separation distress
- Third, a safe haven (moving back to the caregiver in times of distress)

- Four, it is a secure base from where the infant can explore. The difference between a safe haven and a secure base seems to be that the former is related to distress regulation and the latter to the child's freedom to explore.

2.2.2.1 Instinctual Needs and Attachment Behaviour

Slade (1999, p. 576) summarises Bowlby's position succinctly by highlighting the following key notions in his theoretical work:

1. A child is born with a predisposition to become attached to his/her caregivers.
2. A child would organise his/her behaviour and thinking in order to maintain these attachment relationships, which are central to his/her psychological and physical survival.
3. The child will often maintain such relationships at great cost to his/her own functioning.
4. The distortions in feeling and thinking that stem from early disturbances in attachment occur most often in response to the parents' inability to meet the child's needs for comfort, security and emotional reassurance.
5. Distortions in thinking and feeling are often at the root of much psychopathology, because of the child being exposed to environmental failures such as rejection, abandonment, abuse, emotional unavailability or overt trauma.

Bowlby (1956, p. 588) writes the following in his article *Growth of Independence of the Young Child*:

> It is plain that the young infant is endowed with at least two innate responses which have a social significance, namely crying and smiling. Crying is active from birth and smiling within a few weeks of it. Both have a powerful effect on the mother's feelings, binding her emotionally to him.

Bowlby states that clinging, sucking and following are part of an infant's instinctual repertoire in order to meet certain instinctual needs such as keeping the mother close by, and the smile is seen as a "social releaser" that elicits maternal care (Karen, 1990). In contrast with Freud's notion of drives arising out of hidden forces like aggression and libido, Bowlby identified innate behaviour patterns, which he referred to as '"relationship-seeking'" patterns. These behaviour patterns (such as smiling, babbling, looking and

listening) were enriched and developed by the environment responding to them (Karen, 1990). Ainsworth (1969b, pp. 2-3) writes, "Situational factors can heighten or dampen attachment behaviour, but attachments themselves are durable even under adverse conditions".

In his theory, Bowlby defines a series of developmental phases based on the maternal bond. The complete range of attachment behaviour is displayed within the first year of the infant's life. These include protesting the mother's departure, greeting her return, clinging when frightened and following when available. Because of the biological facts that proximity to one's mother is satisfying because it is essential for survival, the attachment behaviour is instinctual. Feelings of joy, security and love are fostered when the proximity is established, maintained and renewed. Anxiety, grief and depression are brought about by an untimely or lasting disruption in proximity (Bowlby, 1969; Karen, 1990).

2.2.2.2 Attachment

Bowlby (1969, 1973, 1980) defines '"Infant attachment'" as "an emotional bond that ties the infant to one or a few figures across time and distance" (Lay, Waters, Posada & Ridgeway, 1995, p. 2). Emotion regulation, defensive processes, anxiety, anger, detachment and helplessness featured prominently in the clinical phenomena that inspired his early work on children. Secure-base behaviour is central to Bowlby's attachment perspective. Emotional display was a key source of information for him when he documented his observations of children's responses when separated from their parents during hospitalisation (this documentation was groundbreaking at the time and central to the practice of caregivers staying with children during hospitalisation) (Bretherton, 1992).

2.2.2.3 Internal Working Models

Bowlby developed the concept of "internal working models". These models describe how the infant's sense of self and of others unfolds through interactions with their primary caregiver (Karen, 1990). In his book '"Separation'", the second volume on Attachment and Loss, Bowlby (1973, p. 236) elaborated on working models of attachment figures and of the self:

> …it is plausible to suppose that each individual builds working models of the world and of himself in it, with the aid of which he perceives events, forecasts the future, and constructs his plans. In the working model of the world that anyone builds, a key feature is his notion of who his attachment figures are, where they may be found, and how they may be expected to respond. Similarly, in the working model of the self that anyone builds, a key feature is his notion of how acceptable or unacceptable he himself is in the eyes of his attachment figures. On the structure of these complementary models are based that a person's forecasts of how accessible and responsive his attachment figures are likely to be, should he turn to them for support…

According to Bowlby, within an individual's internal working model of the world, the self and attachment are most prominent. These models are acquired through interpersonal interaction patterns. The infant is likely to develop an internal working model of self as valued and reliable if the infant's needs for comfort and protection and a simultaneous need for independent exploration of the environment are acknowledged by the attachment figure. On the other hand, the infant is likely to construct an internal working model of self as unworthy and incompetent if the parents regularly reject the infant's bids for comfort or exploration (Bretherton, 1992). In summary: Bowlby believed that the development of patterns of attachment and predictable and established modes of response in the infant are determined by parental behaviour. These patterns and modes of responses can be referred to as internal working models and will guide the individual's feelings, thoughts and expectations in later relationships (Slade, 1999).

2.2.3 Mary D. Salter Ainsworth (1913-1999)

Mary Ainsworth is an important pioneer in the development of Attachment Theory. She contributed extensively in putting Attachment Theory on the map and was responsible for the effect Attachment Theory had on developmental and academic psychology (Bretherton, 1992; Karen, 1990; Slade, 1999). Most relevant to Ainsworth's research was the finding that infants' different patterns of seeking comfort from their mothers were determined by the quality of maternal responsiveness and sensitivity during the first year of the infant's life. Bowlby's central hypothesis was confirmed by Ainsworth's findings: Patterns of seeking care and nurturance and patterns of expressing affect emerge as a function of the mother's response to the child. From an early age, the child learns which responses will elicit care from the mother and which will not (Slade, 1999).

2.2.3.1 Strange Situation Test

Ainsworth contributed to Bowlby's study of the reaction to separation in young children with the development of the groundbreaking *Strange Situation Test* (Ainsworth, Blehar, Waters & Wall, 1978). The assessment of relationships involving an infant is not an easy task. The emergence of the strange situation continues to play a fundamental role in the development of attachment research by providing an instrument to assess the parent-infant relationship (Goldberg, 2000). The purpose of the first strange situation procedure (which was laboratory-based), was to study the infant and the mother's behaviour in an unfamiliar environment when being separated for a short period. Initially, it was complimented by longitudinal, thorough observational studies in homes in Baltimore, Maryland (Goldberg, 2000).

The strange situation procedure was partly based on Bowlby's notion that an infant is equipped with a repertoire of behaviours to attract his/her caregiver's attention in times of need and to respond to caregivers' reciprocal behaviours in turn. Therefore, the attachment behaviour served a protective function. The strange situation procedure was also based on Ainsworth's idea of the caregiver (attachment figure) serving as a secure base from which the infant could explore (Goldberg, 2000). The procedure included a number of naturalistic observation features, in order to observe situations encountered during everyday life and thereby evaluating authentic behaviours (Goldberg, 2000).

During this 20-minute procedure, the mother and infant will enter a room where a stranger will meet with them. Soon after entering the room and meeting the stranger, the mother will leave her infant to play with the stranger until she will quickly enter the room again. The duration of the mother's absence usually lasts for a maximum of three minutes. The next separation entails that both the mother and the stranger leave the infant alone in the room for a brief while, until both of them return to the infant (Rosswurm, Pierson, Woodward, 2007). The infant's behaviour during the moments of separation and reunion is observed closely in order to identify a pattern of behaviour (Rosswurm et al., 2007).

Ainsworth's description of attachment patterns according to the Strange Situation Test was groundbreaking work in the field of developmental psychology. Ainsworth

developed patterns of attachment according to observations during the Strange Situation Test (Waters & Beauchaine, 2003). The avoidant, secure, resistant/anxious (ABC) classification system represents people from the general population and can be distributed along the normal curve. Secure attachment and insecure attachment are the two main categories of attachment. Originally, Ainsworth et al. (1978) referred to two categories of insecure attachment, namely avoidant and anxious/resistant attachment. Later on, in 1986, Mary Main and Judith Solomon described another type in the insecure attachment category, namely the disorganised type of attachment (Lyons-Ruth, 1996). The various categories of attachment are summarised in Figure 2.1, which represents a vast field of research (Frank, 2007; Goldberg, 2000; Grossmann & Grossmann, 1999).

Figure 2.1: Attachment Classification System

Attachment Pattern	Child	Parent/Caregiver
Insecure Avoidant (A)	- Explores with little reference to mother (focus on exploration). - Little or no distress on departure. - Little or no visible response to return. - At times, more friendly and sociable towards stranger than to mother. - Attachment needs not expressed. - Distinct lack of emotional expression - Often in denial of feelings or emotional experiences	- 'Rejecting' - Slow, little or no response to distressed child. - Uncomfortable with close body contact. - Discourages crying and encourages independence. - In denial of child's emotional experience - Anger and irritation override positive feelings. - Minimally expressive and rigid in dealing with infant - Responsible for initiating interactions.
Secure (B)	- Uses mother as secure base for exploration (i.e. freely explore environment, with occasional verbal, visual and physical contact). - Protests caregiver's departure (exploration might diminish) - Comforted on return, soon returning to exploration. - Monitors and maintains proximity to caregiver. - Open and flexible emotional expression.	- Responds sensitively, appropriately, promptly and consistently to needs. - Emotionally expressive. - Flexible in dealing with their infant. - Accepting rather than rejecting - Co-operative rather than interfering.

Insecure Resistant/ Ambivalent (C) (inconsistent)	- Preoccupied with inconsistent caregiver's availability. - Severe distress on departure but warms to stranger. - On return, ambivalence, anger, reluctance to warm to caregiver - continued displays of distress. - Angry or passive emotional quality of behaviours. - Predominance of negative affect before, during and after separations. - Repeated high-frequency demands to elicit attention.	- Inconsistent between appropriate and neglectful responses. - Inconsistent responses to child's emotional display, confusing for child - Insensitive to infant signals, but less rejecting than adults of infants with an avoidant attachment. - Incompetent in physical contact with infants. - Little spontaneous affection.
Disorganized	- Stereotypical behaviour on return, such as freezing or rocking. - Confused expectations of caregiver. - Fearful of caregiver. - Lack of coherent coping strategy (such as approaching but with the back turned). - Contradictory behaviour (e.g. avoids parent while extremely distressed) - Undirected, misdirected or incomplete movements and expression. - Infant ignores/fails to express attachment needs. - Takes charge of care giving: entertain, comfort and help attachment figure. - False '"brightness'"	- Frightened or frightening behaviour, intrusiveness, withdrawal, negativity, role confusion, affective communication errors and maltreatment. - Inadequate care. - Often mothers with depression.

- **Insecure Avoidant Attachment (A)**

A dismissive adult attachment style is referred to when discussing the *insecure avoidant attachment* category. Infants in this category of attachment can seem not to be upset when the caregiver leaves them, and they often do not seek proximity or try to make contact upon their return (Rosswurm et al., 2007). These infants also seem to be independent and self-reliant (Levy, 2000, p. 32). The structures for regulating, containing and suppressing affect are rigid and highly organised, and the free expression of especially negative affect appears insignificant (Slade, 1999). "If insecure attachment is associated with discrepancies between what is felt, expressed and discussed…insecure attachment would be associated with more difficulty and confusion

in interpreting and describing the emotional expressions of others" (Goldberg, 2000, p. 144). Several characteristics in the insecure avoidant category are apparent in the child's and parents' behaviour. Some examples are the following (Frank, 2007; Goldberg, 2000; Grossmann & Grossmann, 1999):

- The child is not distressed when the parent leaves him/her.
- The child does not respond upon his/her parents' return.
- At times, the avoidant child responds more friendly and sociable towards a stranger than to his/her mother.
- The avoidant child does not express his/her "attachment needs in order to avoid rejection" (Goldberg, 2000, p. 23).
- Parents of the avoidant child are often slow to respond to their child who is in distress and are often uncomfortable with close bodily contact.
- The parents are often in denial of the child's emotional experience.
- The parent's positive feelings are over-ridden with anger and irritation.
- These parents are mostly responsible for initiating interactions, especially affectionate physical contact.

- **Secure Attachment (B)**

Children (8 months to 24 months) who are *securely attached* to their primary caregiver(s) are upset when their caregiver leaves them and is excited upon their return. They also feel safe in exploring their surroundings because of a secure base; therefore, they will be encouraged to pursue future exploration (Erdman, 1998; Rosswurm et al. 2007; Slade, 1999). Reference is made to an autonomous adult attachment style in the secure attachment category. In this category, there is a balance between affect and structure. Negative and positive emotions are recognised and reflected in a consistent and appropriate way. Regulation and modulation of affect function well and are not overwhelming or irregular. The child realises that the expression of emotion is useful in relationships and that caregivers are alerted during times of distress, due to the parent's responsiveness to a wide range of emotions (Goldberg, 2000). Secure attachment can be related to a "more realistic perception and interpretation of the emotional experiences and expressions of others" (Bretherton, as cited in Goldberg, 2000, p. 144). According to Levy and Orlans, as noted in the Handbook of Attachment Interventions

(Levy, 2000, p. 7), several important factors (apart from the provision of safety and protection in a secure attachment) are necessary for healthy development of children:

- They must learn basic trust and reciprocity, which serves as a template for all future emotional relationships.
- They must explore the environment with feelings of safety and security ("secure base"), which leads to healthy cognitive and social development.
- The ability to self-regulate, which results in effective management of impulses and emotions, must be developed.
- A foundation must be created for the formation of identity, which includes a sense of competency, self-worth and a balance between dependence and autonomy.
- A pro-social moral framework must be established, which involves empathy, compassion and conscience.
- A core belief system must be generated, which comprises cognitive appraisals of self, caregivers, others and life in general.
- A defence against stress and trauma must be provided, which incorporates resourcefulness and resilience.

- **Insecure anxious/ambivalent attachment (C)**

Infants whose mothers are inconsistent or rejecting in their responsiveness tend to have children with a resistant or *ambivalent attachment*. Infants who struggle to be comforted or to become contained are classified as resistant or ambivalent. The ambivalent category is complex and can be referred to as the '"preoccupied'" adult attachment category. An infant with this attachment style exhibits restless behaviour before the mother leaves and often displays anger for the duration of her absence. When the ambivalently attached infant is in a strange environment, he/she will cling to the caregiver and not be able to explore independently (Levy, 2000, p. 33). When the mother returns, the child exhibits a combination of pleasure and resistance (Rosswurm et al., 2007). Sufficient structures for the regulation of affect in this category of attachment are absent, and memories, feelings and cognitions are regulated inconsistently. The affective cues are being hyper-activated in the sense that these children often exaggerate e.g. their negative emotions, in order to assure continuous comfort and care (Goldberg, 2000; Slade, 1999).

- **Disorganised/disoriented attachment (Mary Main)**

Some children showed characteristics from the avoidance and resistance category and could therefore not be classified. Mary Main later described and labelled this unique category as the *disorganised or disoriented* type (Erdman, 1998; Rosswurm et al., 2007). Infants in this category did not present with a new pattern of behaviour, but rather with unusual behaviours without a clear goal or reason. Infants in this category were unable to maintain a consistent strategy for relating to the caregiver in times of distress. These unusual behaviours indicated that the infants had confused expectations and were scared of the caregivers (Goldberg, 2000). The patterns of behaviour of infants in this category are often contradictory and vary in different situations. The precursor for an infant's disorganisation and dissociation upon reunion has not been explored extensively, but according to initial research, the infant's behaviour can be linked directly to maternal behaviour (Goldberg, 2000; Slade, 1999). It was found that disorganisation occurs with inadequate care and resulting maltreatment, often by depressed mothers. In the disorganised category, reference is made to the unresolved loss or trauma adult attachment category.

> Overt maltreatment is one form of frightening caregiver behaviour, but subtle and brief behaviours can also be frightening. Such behaviours include e.g. suddenly looming over the infant without giving a clear signal that a game is intended, exaggerated startles in response to the infant's fall, or periods of being dazed and unresponsive (Goldberg, 2000, p. 26).

2.2.3.2 Maternal Sensitivity Scales

Mary Ainsworth's (1969a) research on secure base behaviour and parental care contributed significantly to the development of Attachment Theory. The fundamental question she asked was whether quality or quantity of care is at the heart of a secure attachment. In her Maternal Sensitivity Scales, she focused on four characteristics of early care, namely sensitivity versus insensitivity to the infant's signals, cooperation versus interference with ongoing behaviour, psychological and physical availability, and acceptance versus rejection of an infant's needs (Ainsworth, 1969a).

2.2.3.3 Emotion Regulation

Kopp, as cited in Lecuyer and Houck (2006, p. 347), describes self-regulation in childhood as "the ability to modulate one's activities according to social norms without

assistance from caregivers". Self-regulation is a central task of toddlerhood and early childhood. Toddlers begin to self-regulate as they become more mobile, communicative and autonomous. "The definition of self-regulation is the ability to achieve one's own goals according to social norms and rules without violating the integrity of others…it implies that self-regulation includes autonomous self-assertion as well as compliance with social norms and mandates" (Lecuyer & Houck, 2006, p. 347). The special relationship between infant and caregiver that evolves in the first year of the infant's life and beyond is referred to as attachment and is inherently an emotional construct. Attachment is characterised in terms of the regulation of infant emotion and implies an '"affective bond'" or emotional relationship between infant and parent (Sroufe, 1996, p. 172). For the purpose of this study, self-regulation was viewed in the light of the parent-child relationship that is responsible for an infant's development of emotion regulation skills. Therefore, the term self-regulation was used in the context of emotion regulation.

The way in which developing individuals experience and deal with certain situations is shaped by their emotions. An important feature of a child's everyday life is his or her emotional reactions to these situations. First, developmental researchers recognise that emotion serves as a behavioural regulator. Researchers' recent views of emotion emphasise its "biologically adaptive and psychologically constructive function" (Thompson, 1990, p. 368). According to Thompson (1990, p. 368), further substantial roles that emotion assumes to have are in social communication, goal achievement, personality functioning and cognitive processing. Emotion is deemed exceptionally important in social communication with primary caregivers and peers (Thompson, 1990). A second feature of emotion is that of a regulated phenomenon. Because of "neuropsychological development, the growth of cognition and language and the emergence of emotion and self-understanding" during early development, emotion becomes increasingly self-regulated, as opposed to initial regulation by others (Thompson, 1990, p. 369).

A fundamental aspect of security is the ability to regulate and therefore fully experience a range of affects, specifically distress and pleasure (Slade, 1999). The capacity to contain and regulate emotion comes with an understanding of affect, and this capacity has its' roots in the mother-child relationship (Slade, 1999). The mother will not be dysregulated by her infant's display of aggressive or negative affects because the

display of emotions will be familiar to her, if she is able to reflect upon and therefore modulate and integrate her own affective experiences. The mother will respond sensitively to her infant's signals because she is sensitive to the meaning of emotion and interprets the signals as patterned, sequential, bounded and meaningful. "Infant signals are perceived by the mother as coherent, organized communications that, like all interpersonal dialogue, have a function and a message" (Slade, 1999, p. 581). In doing this, the mother is able to understand the meaningfulness of her infant's affective communications and signals because she gives voice to her own experiences and she describes them coherently and meaningfully in the context of their ongoing dialogue. These affective communications then become known, familiar and communicable to the child (Slade, 1999).

The internalisation of emotion regulation forms part of the primary developmental transition from infancy to adolescence. Older children gradually learn to modify their own emotional states independently of contact with the attachment figure, whereas infants and younger children rely on contact with the caregiver. Older children use strategies such as shifting attention, self-soothing, reappraisal, active coping or simply avoiding certain stimuli (Diamond & Fagundes, 2008). Attachment Theory predicts that attachment figures remain the most preferred and most effective providers of this function when regulatory demands are high, at all stages of life (Diamond & Fagundes, 2008).

A person's progress in emotional and social development is interlinked because of emotions unfurling in a social context and because other aspects such as regulation of affect take place in care-giving relationships. Sroufe (1987), as cited in Sroufe (1996, p. 151), states that "dyadic regulation represents a prototype for self-regulation; the roots of individual differences in the self-regulation of emotion lie within the distinctive patterns of dyadic regulation." Therefore, he describes the wide-ranging course of emotional development as the change from dyadic regulation to self-regulation of emotion. The way that the parent/caregiver regulates his/her own emotions will ultimately determine how the infant learns to regulate his/her emotions. Therefore, there is a high correlation between the caregiver's attachment status and that of the infant.

Based on cumulative experience during the first year of the infant's life and the infant's expanding cognitive abilities, infants can now recognise the caregiver's role in emotion modulation and their own role with respect to eliciting caregiver availability and assistance (Sroufe, 1996). The reunion behaviour (seeking proximity, maintaining contact, resisting and avoiding contact), as examined by Ainsworth's strange situation procedure, is concerned with the effective use of caregivers for emotional regulation. In secure attachment, the infant derives comfort from the caregiver easily, directly and thoroughly (Sroufe, 1996).

There are two salient hypotheses on the organisational position of attachment as a construct. The first hypothesis is that differences in quality of attachment are determined by the differences in quality of care. This entails that the pattern of later dyadic regulation is forecast by early regulation by the caregiver (Sroufe, 1996). The second hypothesis is that "such differences in attachment will have a profound impact on the infant's later self-regulation of emotion" (Sroufe, 1996, p. 185). The child forms expectations regarding the caregiver's responsiveness, based on the history of interaction. Therefore, the attachment relationship is the product of the interactional history of the particular dyad.

The child's internal working model (the child's own degree of effectiveness in eliciting responses) is also determined by the interactive history (Sroufe, 1996). A child's expectations of behaviour of the caregiver in terms of sensitivity, trustworthiness, dependability and consistency of the caregiver, are encoded in the child's internal working model (Diamond and Fagundes, 2008). These internal working models are also encoded with equivalent views of oneself as worthy or unworthy of love and attention (Diamond and Fagundes, 2008). Ainsworth et al. (1978) describes that internal working models provide a child with an "inner resource" of security to explore the environment while seeking increasing independence.

A link exists between the quality of interaction between the infant and caregiver and the later development of the child. Emphasis is often placed on the sense of agency that comes from responsive care and a secure attachment history that may lead to positive expectations in relation to social relationships. Sroufe (1996, p. 189) writes:

> The effective dyadic regulation of emotion in infancy (secure attachment) is predicted to have consequences for emerging expectations concerning emotional arousal and, at the behavioural level, consequences for the expression, modulation, and flexible control of emotions by the child. Those infants participating in a smoothly functioning, well-regulated relationship have repeatedly experienced (1) that others are available and respond when they are emotionally aroused, (2) that emotional arousal is rarely disorganizing, and (3) that, should such arousal be disorganizing, re-stabilization commonly is quickly achieved.

Children are enabled to establish school and home-based relationships that are more positive and they are protected against processes such as classroom victimisation and exclusion and academic failure when they are socially competent and able to use self-regulation of emotion as a protective factor (Lecuyer & Houck, 2006).

Children learn self-regulation skills as they become better at expressing their needs and emotions. Because attachment is not a '"one-way street'", the child affects the caregiver and the caregiver affects the child. Edward Tronick, as cited in Sonkin (2005), refers to this process as '"mutual regulation"'. One way of conceptualising attachment status is that it is a form of emotion regulation (Sonkin, 2005). This generally occurs in the context of relationships and how individuals deal with emotions associated with separation, loss and specifically reunion (Sonkin, 2005).

As mentioned in section 1.1 of chapter 1, children with ADHD are assumed to have a deficiency in executive functioning and behavioural inhibition. Barkley (2004) elaborated on the executive functioning of a child with ADHD' and his/her ability to self-regulate his/her emotions in the Handbook of Self-regulation. According to Barkley (1997), children with ADHD have a delay in privatisation of speech, which results in excessive talking and greater public speech. Most often, they act before reflecting verbally, their self-speech in controlling their own behaviour is less rule-oriented and organised, and they have difficulties following instructions and rules that others give. A major basis for verbal working memory is private self-speech, and children with ADHD have a delay in internalisation of speech, which means that this domain of cognitive activity should be impaired. In the light of this impairment, children with ADHD should display greater emotional expression in response to events, less objectivity in the response to an event, diminished social perspective taking (because of no delay in initial emotional reaction)

and a diminished ability to induce drive and motivational states in themselves in the service of goal-directed behaviour (Barkley, 2004, p. 316).

"Preliminary work has begun to demonstrate that those with ADHD do have significant problems with emotion regulation" (Braaten & Rosen, 2000; Maedgen & Carlson, 2000 as cited in Barkley, 2004, p. 316). Emotion regulation is central to Attachment Theory, which focuses on the infant's internal working models, secure base behaviour, emotion regulation characteristics and the caregiver's level of reflective functioning (Goldberg, 2000). This study used Attachment Theory as a point of departure in exploring the emotion regulation characteristics of a girl with ADHD. See Section 2.4 for a further description on emotion regulation and specifically the emotion regulation characteristics of children with ADHD.

2.2.4 Mary Main

2.2.4.1 Adult Attachment Interview

Mary Main provided a tool to the field of epidemiology and psycho-analysis to examine the concordance of parental and infant attachment patterns, (Fonagy, Steele, Steele, Moran & Higgitt, 1991). In 1985, Mary Main introduced and developed the adult attachment interview (AAI), and she pursued significant studies on adult attachment. She contributed to the studies of John Bowlby and Mary Ainsworth on attachment and brought it to the attention of psychotherapists and psycho-analysts. Main and her colleagues were interested to find out whether an infant's attachment status was related to their parent's infant and early childhood attachment experiences. Particularly, they focused on the probability of patterns that can be connected. The AAI is a semi-structured interview to assess attachment in adults and consists of a set questionnaire (see addendum F) that covers an adult's experiences of loss, rejection, separation and childhood attachment relationships (Slade, 1999; Sonkin, 2005).

Representational patterns were discovered that were similar to the infantile behaviours in a strange situation procedure. The way in which significant events were structured, remembered and described (e.g. coherence, congruence, meta-cognitive monitoring and reflective functioning) elicited the patterns (Slade, 1999; Sonkin, 2005). Three patterns of attachment were categorised by Main and her colleagues: first, the

'"autonomous'" pattern, second the '"dismissing'" pattern and third, the '"preoccupied'" pattern as indicated and summarised in Figure 2.2.

Figure 2.2: Classification of Adult Attachment

Adult Attachment Interview		
Infant	**Caregiver**	
Secure →	**Autonomous**	- Responses are clear, relevant, to the point. - Coherent story supported by detailed memories. - Able to recognise limitations of and positive aspects of attachment figure. - Take interviewer into consideration.
Avoidant →	**Dismissing**	- Provide relatively short responses ("can't remember") and generalisations. - Positive descriptor but not sufficient evidence (idealise childhoods, only few supporting memories). - Inappropriate affect when talking about painful experiences.
Insecure →	**Preoccupied/Enmeshed**	- Vivid, long and often emotional narratives (a lot of anger about old stories). - Unable to tell a coherent story. - Interviewer needs to clarify in order to keep on track.

Autonomous adults are able to represent their early attachment experiences coherently and flexibly. These adults are able to recall positive and negative attachment experiences easily. Insecure adults tend to be incoherent and contradictory in their representation of their attachment experiences. Dismissing adults seem detached and tend to idealize and/or rationalise their early relationship experiences. Similar to avoiding infants, dismissing adults minimise and underregulate that which might disturb their functioning. Thoughts of early attachment experiences overwhelm preoccupied adults and flood them with affect. Another pattern of attachment is the unresolved, disorganised category. These adults exhibit disordered thinking when they have to talk about loss or trauma. The '"cannot classify'" category is a classification for adults who 'are not able to give a single description of their attachment relationships (Slade, 1999).
Children who are secure in a strange situation are found to have autonomous parents (Main et al., 1985). Avoidant children tend to have parents who are dismissing in their attachment, and resistant children are found to have preoccupied parents. Children who

are unresolved or distant in terms of attachment have parents who are disorganised in relation to loss and trauma (Slade, 1999). The studies done by Main and her colleagues indicate that a significant association exists between infant and adult security.

The ability to reflect on one's internal emotional experiences, make sense of it and reflect on the mind of another is the trademark of a secure attachment. Insecurely attached individuals lack this reflective functioning (Slade, 1999). If we refer to the level of sensitivity that the caregiver attunes to the infant, it is clear that the infant will be conditioned to the same level of sensitivity to his future attachment figures and relationships. An infant sees himself through the eyes of the caregiver because the caregiver reads the verbal and non-verbal cues from the infant and reflects them. This is where the developing self starts growing and the contingent communication reaps off (Slade, 1999).

Individual differences exist in infant attachment relationships in terms of the infant's ability to use the caregiver as a secure base and of the ability of the caregiver to respond to the infant's signals and serve consistently as a secure base over time and situations (Lay et al. 1995). The quality of the attachment between the parent and the child strongly influences the child's developing adaptation to the environment (Fonagy et al., 1991). The quality of the attachment influences a child's pervasive social, emotional and cognitive development. Fonagy et al. (1991, p. 207) states, "Longitudinal studies have shown that attachment in infancy exerts a major influence, for good or ill, on social adaptation, affect regulation and cognitive resourcefulness, and may result in later psychological disturbance."

2.2.4.2 Reflective Functioning

In 1986, Howard and Miriam Steele started a longitudinal study on intergenerational attachment patterns in London. The aim of the longitudinal study was derived from their discovery during their doctoral studies that mentalization plays a central role in human development and mental health (Steele & Steele, 2008). They received valuable advice from Bowlby at the Tavistock Clinic and were inspired by the supervision that Peter Fonagy made available to them at the University College in London. Influenced by the characteristic combination of Freudian, Kleinian and independent thinking, Fonagy

combined clinical training and empirical psychological research at the British Psychoanalytic Society. Thus, diverse psychoanalytic and developmental psychological viewpoints influenced the initial development of the concept of reflective functioning (RF) (Steele & Steele, 2008).

The predictive power of Ainsworth's strange situation procedure determines the association between the quality of attachment between infant and parent and parental reflective functioning (Ainsworth et al., 1978). Ainsworth was able to prove that the infant's primary object relationship is central and most important in all developmental lines, as Anna Freud (1965) claimed. In their paper titled '*The Origins of Reflective Functioning*', Steele and Steele (2008, p. 135) quoted various authors in stating the following:

> Crucially, a vast body of empirical work has demonstrated the long-term significance of primary attachment relationships for subsequent mental health, peer relationship quality and powers of concentration, levels of academic achievement, emotion understanding skills…and overall sense of self and personhood.

The way in which adults use, or fail to use, their beliefs and desires (mental state language) when having to give account of their developmental history, is central to the concept of reflective functioning (Steele & Steele, 2008). Our everyday understanding of the human mind is tied intrinsically to our understanding of the world around us. The mind (reflective self) is interpersonal and we learn about mental attitudes by being an observer and thus taking the position of a third person. Essentially, the development of the reflective self is tied to the evolution of social understanding. "It is through the appreciation of the reasons behind the actions of his caretakers and siblings that the child can come to acquire a representation of his own actions as motivated by mental states, desires and wishes" (Fonagy et al., 1991, p. 204).

Steele and Steele (2008) refer to the manual relevant to rating adult attachment interviews by Fonagy, Target, Steele & Steele (1998) when they describe reflective functioning scores. When the participant has difficulty and lacks the ability to access the motivational roots of behaviour in the self or others, the person will have a low RF score. People with low RF often show isolation and denial of affect. In the parenting field, these people are often found to be less sensitive in exploring the child's internal

working world (Steele & Steele, 2008). People with low RF skills ("hypo-RF stance") avoid the range and intensity of feelings such as hate, envy, joy, fear and trust. On the other hand, people with low RF skills may present these feelings in an angry or emotionally aroused manner ("hyper-RF stance") (Steele & Steele, 2008, p. 136).

People with seemingly high RF skills embrace questions that demand reflection with interest, enthusiasm and joy. Mindfully and with humour, they spontaneously contemplate their parents' mental states that guided them in their parenting. They also show an intuitive understanding of intergenerational influences of their grandparents' beliefs and behaviour. People with high RF skills do not relentlessly claim that they know what was in their parents' minds, but they show an energetic interest in human motivation and consequent behaviour. People with high RF skills are likely to consider the diverse positive and negative feelings as both causes and consequences of behaviour (Steele & Steele, 2008).

The concept of "understanding of mental states" significantly influenced the psychoanalytic theory of normal development, parenting and the infant-caretaker relationship''. Affect and its regulation are closely related to developing the capacity for mental representation of the psychological functioning of self and other. Bowlby (1969), as cited in Fonagy et al. (1991, p.206), writes, "Attachment Theory has taught us that emotions are 'wired in' and arise as behavioural signals to the caregiver". These signals indicate the psychological experience of loss or the presence of physical distress. If the infant's affects are ignored, misinterpreted or being defended against by the caregiver, the infant is left seeking relief from feeling unpleasant and in a state of imbalance. The regulation of affect is left to behavioural devices, before the infant is able to develop an ability to observe and respond to the affect as a mental event.

Fraiberg (1982), as cited in Fonagy et al. (1991, p. 206), identified a number of these behavioural devices, such as avoidance or looking away from the mother to avoid the activation of painful mental representations, behavioural reversal of aggression and conversion into acts of self-injury, immobilisation such as freezing and, lastly, fighting the mother, which give way to tantrums and disintegrative states. These behaviours indicate an insecure bond between infant and caregiver, as indicated by Ainsworth's

strange situation procedure, which evaluates the quality of an infant's attachment to a caregiver through observation (Fonagy et al., 1991).

2.2.5 Attachment Theory within the Framework of Intersubjectivity

Attachment Theory, pioneered by John Bowlby in the latter half of the previous century, remained a relatively small offshoot of psychoanalytic theory for the greatest part of the previous century. The revival that has occurred over the past more or less twenty years is extensive and growing. Attachment Theory is now placed firmly in developmental psychology (where it remained largely untouched for many years), and it is finding its way back into therapeutic practice. Today, it represents a vast body of continuously expanding research, including the fields of trauma and neurobiology (Fonagy, Gergely, Jurist & Target, 2002). The present study intends to add, albeit in a very small way, to the body of debates about the role of reflective functioning in developing the regulation of affect (Fonagy et al., 2002). This study describes the profile of affect regulation in a young girl diagnosed with ADHD and reflects on the possible contribution that research findings on Attachment Theory can make to the difficulties that children with ADHD have with regulating emotion (Barkley, 1997).

In part, the revival of Attachment Theory is, possibly linked to the emergence of relational theory and the concept of *intersubjectivity*. Aron describes the emergence of relational theory (Greenberg and Mitchell, 1983) as a reaction to the increasing discontent with the classical view of the individual as intra-psychic: "Relational Theory is based on the shift from the classical idea that it is the patient's mind that is being studied…to the relational notion that the mind is inherently dyadic, social, interactional, and interpersonal" (Aron, 1996, p. x). The focus of intersubjective thinking is on the intersubjective field (that which develops between us, also referred to as *the third)* as well as the representation of that model intrapsychically (Benjamin, 1990). What does *the third* mean? In the relationship between two people, a distinct personality develops. In a therapeutic context, for example, a ten-year-old child is confident and self-assured in the company of her therapist, but when the mother is present during a joint session, the child behaves less self-assured and acts in a childlike manner. The difference between the two '"personalities"' of the child gives an idea of the concept of *the third.*

- **Bowlby's Internal Working Model and Intersubjectivity**

The concept of '"the third'" reminds of Bowlby's concept of the *internal working model.* According to Bowlby (1969), we construct internal models of the world out of interpersonal interactions between the self and our attachment figures. Therefore, the development of internal working models is based on actual experiences. For example, a child who repeatedly cries with no response from his/her parents will develop a model of expecting people not to be available when in distress. These internal working models direct and steer experiences to follow (Goldberg, 2000).

Interaction in a dyadic system is at the root of all theories of intersubjectivity (Beebe, Knoblauch, Rustin & Sorter, 2005). In the dyadic system, both partners are being influenced and affected constantly by each other's regulation processes. Therefore, it is a continuing interactive process of regulation. Beebe et al. (2005) considers all theories of interaction as theories of intersubjectivity, which consequently includes attachment as a form of intersubjectivity.

> Infancy is a time of essential intersubjectivity. This is the experiential common ground where mother and baby produce a felt event to be shared; a time, place and play of harmonious interpenetrating mix up, when parent and child actively join in each other's emotional experiences (Balbernie, 2007, pp. 308-309).

Stern defines three forms of intersubjectivity, namely "joint attention", "joint intention" and "joint affect/interaffectivity". In his view, intersubjectivity is a mutual regulation process during which infant and caregiver (partners) '"change with'" each other. The mother is affectively attuned and matches with the infant's timing, form and intensity of behaviours, which entails that their inner states are matched and regulated. According to Stern's definition of intersubjectivity, the mother plays a more elaborate role than the infant does (Beebe et al., 2005). In the intersubjective field between infant and parent, the parent should intuitively accompany the development of his/her child (Balbernie, 2007). Bowlby, as cited by Balbernie (2007), links Winnicott and Bion's concepts of "holding" and "containment" to the provision of a secure base. These constructs describe the emotional attunement necessary for mutually influencing intersubjective contact that informs infant mental health interventions. These concepts describe the parent's role in the intersubjective contract between parent and infant and shed light on "attunement, affect regulation, reflective function and sensitive caregiving that promotes security of attachment", which forms part of intersubjectivity (Balbernie, 2007, p. 310).

Affective communication and proximity-seeking behaviours both derive from the attachment system, which is signified by the early emergence of proximity-seeking behaviour that can be related to intersubjectivity. The quality of the attachment between an infant and a parent can be related significantly to the quality of intersubjective exchanges in the form of face-to-face interactions between an infant and a parent. This shows that proximity-seeking behaviours (emotional and physical closeness, i.e. attachment behaviour) can be related directly to intersubjectivity (Lyons-Ruth, 1999). According to Owen (2006), attachment is a distinguishable part of intersubjectivity in society. He defines attachment as "co-empathic, intersubjectivity that happens between child and carer" (Owen, 2006, p. 33). In contrast to Owens' definition of attachment, Bowlby (1969) states that an attachment develops, regardless of the presence or absence of empathy.

Neuroscientists such as Damasio, LeDoux and Brothers (as cited in Beebe et al., 2005) emphasise the connection between mind and body and emotion as imperative to adaptation. In parent-child relationships, emotions and the physical features of emotion are pivotal. Infants learn "expectancies" of how relationships "go" via preverbal, pre-symbolic action sequences (Beebe et al., 2005, p. 192). Stern and colleagues (1998) and Lyons-Ruth (1998, 1999) refer to this as "implicit relational knowing", as cited in Beebe et al. (2005, p. 192). In view of emotion as central to relationships and adaptation, it is important to consider the development of the brain. During the first year of life, the executive focal attention system, which primarily regulates emotion, develops in the prefrontal cortex (Beebe et al., 2005). Section 2.2.6 elaborates on the function of the brain in attachment.

- **Intersubjectivity and Reflective Functioning**

In her article, Karlen Lyons-Ruth (1998) argues that attachment stems from a person's internal drive for intersubjectivity and the desire for proximity to the caregiver. According to her, individuals are inherently inclined to develop the knowledge that other people have mindedness, their own sets of beliefs, ideas and emotional processes that motivate their behaviour in relationship with others and the external world. Lyons-Ruth's conception of intersubjectivity is closely related to the explanation by Fonagy et al. (2002) on "mentalization" or "reflective function". According to Fonagy et al. (2002),

mentalization or reflective functioning is the capacity to explore the mental state of another individual. This exploration can be carried out in the service of learning how to regulate one's own affective state and about oneself.

Lyons-Ruth (1998, 1999) states that intersubjectivity as the capacity to mentalize, is a process during which children realise that other individuals have emotions and intentions that guide others' behaviour toward them. The infant is provided with an overarching sense of her cognitive and emotional self through reciprocal mentalization and interaction between the parent and the infant. The infant realises that the parent has intentionality behind their behaviour and has a mind of their own. This is important in the development of the infant's self-image, the development of the self and awareness of the emotion regulation processes to which the parents will be most responsive (Lyons-Ruth, 1998).

According to Daniel Stern (1985) (as cited in Beebe et al., 2005), intersubjective contact occurs when two people, at least for a moment, experience the same mental landscape similarly. He claims that intersubjectivity can develop and deepen when there is a close attachment and intersubjectivity creates conditions that are conducive to forming attachments. According to Stern, toward the end of the first year (9-12 months), the infant discovers that she and others have minds and that "inner subjective experiences are potentially shareable" (Beebe et al., 2005, p. 42). Intersubjectivity appears at the beginning of the transition to symbolic intelligence, when infants develop the capacity to communicate and share their focus of attention, feeling state and intention (Beebe et al., 2005).

2.2.6 The Psychobiology of Attachment

As far as we know, a newborn brain is wired to control only a few functions, namely those that are necessary for survival, e.g. respiration, reflex movements and heart rate (Levy, 2000). The newborn brain does not have the capacity to allow learning and thinking to occur because of the brain cells that are not yet connected. From birth to three years of age, the newborn's approximate 100 brain cells will develop approximately 1000 trillion neural connections. These connections will be diminished by the age of seven onwards, where the brain itself gets rid of connections that were used

or stimulated least. The brain will retain connections that were repeated consistently during infancy and childhood, which will remain there permanently. This emphasises the importance of healthy attachments in order to strengthen children's resilience against emotional and behavioural problems in the future (Levy, 2000). Yamada, Greenough, Christakis (as cited in Beebe et al., 2005) elaborate by stating that the density and number of the neuronal synapses are affected by the degrees and types of stimulation and environmental exposures. They further state that development of the brain is influenced by the types and intensity of auditory and visual experiences.

Research since the early 1980's has shown that external experiences and attachment relationships affect the neurological development of the human brain to a great extent (Knox, 2003). In his article on *The Interpersonal World of the Child,* Stern (1985) inspires researchers to explore the intricate relationship between the emotional, interpersonal and neurophysiologic functioning of infants and adults (Knox, 2003). Knox (2003, p. 97) cites Schore, who states, "Neurodevelopmental processes of dendritic proliferation and synaptogenesis which are responsible for postnatal brain growth are critically influenced by events at interpersonal and intrapersonal levels".

> Consistent with what has recently been discovered about the organization and development of a child's brain, Attachment Theory is based on the assumption that a child's neurological and emotional development is largely determined by the quality of his interactions with primary caregivers during those early years. In other words, the nurturing interactions that enable caregiver and infant to form a secure attachment also determine the neural development of that child's brain. (Ladnier & Massanari as cited in Levy 2000, p. 29)

The brain and other parts of the nervous system physiologically transmit messages to organise and initiate behaviour concerned with human interactions (Goldberg, 2000). According to Schore (as cited by Goldberg, 2000), behavioural exchanges take place when an individual's brain exchanges information and influences another person during interaction. Current research shows that there are three processes of environmental influences on brain development (Greenough, as cited in Goldberg, 2000). The first process is when environmental information is typical and essential for a person's well-being and survival. This process is referred to as "experience-expectant"(Goldberg, 2000, p.185). The second process is "experience-dependent" when the brain cannot anticipate or prepare for an event and therefore forms new synaptic connections in

response to particular events (Goldberg, 2000, p. 185). The third process is based on biological mirroring. The neurons in a specific part of the brain that are responsible to react to emotional cues respond to another person's overt emotional behaviour during the process of biological mirroring (e.g. when an infant smiles, the mother's "emotion neurons" automatically respond and reflect the infant's emotional cue back to him/her).

Schore focused on the experience-dependent process in the post-maturation of the prefrontal cortex (Goldberg, 2000). He claims that face-to-face interaction with frequent eye contact, laughter and smiling between infant and caregiver releases neurotransmitters that are linked to the infant's internal states. Schore (as cited in Goldberg, 2000) claims that attachment influences neurobiological development and the neurobiology of emotions and emotion regulation are influenced by attachment, primarily through these experience-dependent processes. He postulates that considering infant-caregiver interaction when exploring the psychobiology of attachment is imperative. According to Goldberg (2000), the developing infant brain is stimulated primarily by the influential, constant infant-caregiver relationship. The adult's role is to modify, shape and provide the infant's interactions with the environment that determines other experiences that the infant will encounter.

2.2.7 The Psychological Concept of Mirroring and Reflective Functioning

Donald Winnicott was a significant forerunner to the understanding of reflective functioning (Steele & Steele, 2008). Winnicott had "a deep visual sense of what mothers did for their infants… When the infant looks at the mother's face he can see himself, how he feels reflected back in her expression. If she is pre-occupied by something else, when he looks at her, he will only see how *she* feels" (Phillips, as cited in Steele & Steele, 2008). According to Winnicott, an infant learns what he feels through seeing it reflected back to him. If an infant is seen in a way that validates him and in a way that permits him to feel fully that he exists, he is free to continue looking. "…He is free to go on thinking and exploring the mental and emotional world of others, and go on thinking" (Steele & Steele, 2008, p. 137).

The capacity to recognise and perceive others and oneself as emotional and psychological beings as well as physical objects can be referred to as reflective functioning (Knox, 2003). According to Knox (2003), mirroring is a less subtle form of

reflective functioning. Reflective functioning relies on cognitive processes, which is primarily the role of the caregiver (see section 2.2.4.2 for a description of reflective functioning). Mirroring happens automatically and does not need any cognition. The way infants experience themselves, as reflected by their environment, reflects the automatic psychological process of mirroring. An example of mirroring during infancy would be when an infant reaches an object that was challenging to reach, looks up at the parent with a smile (which expresses pride and competence) and the parent smiles at the infant, reflecting and even verbalising his/her pride in the achievement.

Winnicot's (1971) definition of mirroring is close to the concept of reflective functioning in Attachment Theory, because it emphasises the mother's responsiveness to the infant's capacity for appraisal and intentionality. Winnicott (1971) emphasises the important question of what the infant sees when he/she looks at the mother's face. What the mother looks like resembles what she sees, which means that the baby sees himself or herself in the mother's face and in the responses to him/her. For the purpose of this study, in contrast to Knox's view, reflective functioning as a concept is separated from the concept of mirroring, as they are different processes in the attachment context. The former is largely unconscious and non-verbal, whereas the latter requires some levels of consciousness, cognition and verbalisation. The concept of reflective functioning requires the parent to be mindful; in other words, having the child's mind in their mind. "It gives the child a sense of his or her inner life and experience…the mother's capacity to enter her child's mind and give reality to the child's internal experience…this is a vital aspect of empathic and sensitive mothering" (Slade, 1999, p. 581).

Fonagy et al. (2002, p. 8) focus on the influence of the parent on the child in a "uni-directional" process. Fonagy et al. (2002, p. 8) and Winnicot (1971) have a similar view of mirroring affect. Both regard the parents' role as central in fostering the capacity for affect regulation in the child through mirroring parental affect. Mirroring affect involves "the parent's use of facial and vocal expression to represent to the child the feelings she assumes him to have in such a way as to reassure and calm rather than intensify his emotions" (Fonagy, et al., 2005, p. 8). They state that, in doing so, the sensitive parent arranges the child's emotional experience through attempts at mirroring the child's internal experience.

2.3 ATTENTION DEFICIT/HYPERACTIVITY DISORDER

2.3.1 Appearance and Clinical Features

Attention deficit/hyperactivity disorder (ADHD) is the term that describes a developmental disorder of self-control in children (Barkley, 2005). Children with ADHD persistently display symptoms of inattention, impulsivity and hyperactivity that are inappropriate to their age. These symptoms are significantly severe and cause impairment in general daily functioning (APA, 2000; Barkley, 2005; Mash & Wolfe, 2005). To define ADHD in two dimensions, namely hyperactivity-impulsivity and inattention, oversimplifies the disorder. Each dimension includes many distinct processes that have been defined and measured in various ways (Mash & Wolfe, 2005).

The symptoms of ADHD might be present by the age of three, but this disorder is rarely recognised until a child has reached the age of a toddler and in a structured school setting such as preschool. The attention and impulsivity of a child in question has to be compared with peers of the same age in order to identify these symptoms accurately (Sadock & Sadock, 2003). Infants with ADHD are excessively sensitive to stimuli and easily upset by environmental changes such as light, temperature and noise. At times, these children develop slowly in the first few months of life due to excessive sleeping and being docile and limp. However, it is more common for infants with ADHD to move around in their crib, cry a great deal and therefore not get an adequate amount of sleep. When social limits structure these children's environment, they are less likely than typical children are to reduce their gross motor activity (Sadock & Sadock, 2003).

The symptoms of ADHD cause children to have a deficiency in regulating activity levels, impulse control, sustaining attention and inhibiting their behaviour (Mash & Barkley, 2006; Kronenberger & Meyer, 1996). Regulating emotion - a primary regulating function that allows one to self-regulate in order to function optimally - will be affected by difficulties in all these areas. Activities that require a child's sustained attention are difficult for children with ADHD because they have difficulty ignoring irrelevant information. In academic and social situations, children with ADHD have difficulty with reasoning, planning, memory and problem solving (Barkley, 2003). Children with ADHD might start an activity at school rapidly but will often not complete that activity. They also

struggle to await their turn and often shout out or respond before anyone else (Sadock & Sadock, 2003).

These deficiencies can lead to poor attainment in school as well as difficulties in establishing and maintaining supportive peer relationships. Youngsters with ADHD also find it hard to conform to parental and adult expectations, which often leads to consistent conflict in relationships (Carr, 2006). These children find it hard to follow instructions at school and consequently demand extra time and attention from their teachers. As mentioned, children with ADHD often do not comply with requests from parents; they act impulsively and they can be explosive, irritable and emotionally labile (Sadock & Sadock, 2003). Non-compliance, aggression and other anti-social behaviours are not inherent in the ADHD diagnosis, but often accompany the diagnostic features of children with ADHD (Kronenberger & Meyer, 1996). In adolescence, impulsivity and risk-taking behaviour can cause subsequent complications; consequently, later adjustment will be compromised. As these children become aware of their difficulties due to repeated experiences of failure, they can develop low self-esteem and depression (Carr, 2006). Concomitant emotional difficulties are common and also influence a negative self-concept (Sadock & Sadock, 2003).

The patterns of behaviour that children with ADHD exhibit are often a source of stress, frustration and helplessness for them and their parents. These children constantly fight against an inherent lack of self-control and disorganised behaviour. Misperceptions of ADHD and consequent labelling of these children can be causes of further frustration and helplessness. The way in which adults respond to children with ADHD has a lifelong influence on the children because it can either add to their emotional pain or it can boost their self-esteem (Mash & Wolfe, 2005).

ADHD cannot be identified as a disorder through physical examination or blood tests. The disorder refers to a slim but verifiable difference in the functioning of the normal brain or central nervous system. There is no outward sign that something is physically wrong (Green & Chee, 1997; Barkley, 2005). ADHD has been studied over the past century, and numerous explanations, causes and features of ADHD are still evolving. The characteristic behaviour of children with ADHD differs from child to child. Patterns

of behaviour need to be identified and must be present in a variety of settings in order to make a diagnosis (Mash & Wolfe, 2005).

2.3.2 Diagnostic Criteria

According to the American Psychiatric Association (2000) and Sadock and Sadock (2003), the essential feature of attention deficit/hyperactivity disorder is a persistent pattern of inattention and/or hyperactive and impulsive behaviour that is more severe than expected in children at a comparable age and level of development. To be diagnosed with ADHD, some of the symptoms must have been present before the age of seven. Some hyperactive-impulsive and inattentive symptoms cause severe impairments once the child enters the formal school setting, which attributes to making the diagnosis of ADHD more valid (APA, 2000; Carr, 2006; Sadock & Sadock, 2003). The predominantly inattentive type of ADHD can be diagnosed only after a few years of formal schooling (APA, 2000). This hyperactivity, impulsivity and inattentive impairment must be significantly severe to interfere with developmentally appropriate social, extracurricular and academic functioning. The impairment from these symptoms has to be present in more than one setting, e.g. at home and at school or extracurricular activity. The diagnosis can also be made only in the absence of a pervasive developmental disorder, schizophrenia or other psychotic disorders and in the absence of other mental disorders (APA, 2000; Carr, 2006; Sadock & Sadock, 2003).

The DSM-IV-TR (2000) classifies three subtypes of ADHD that are based on primary symptoms with regard to characteristics, aetiology and severity of the problem or possible outcomes. These groups make the individual distinct from other children with ADHD in a different group.

- ADHD, ***Predominantly Inattentive Type***: If criterion 1A is met but criterion 1B is not met for the past six months. (These children are described as "day-dreamy", lethargic, inattentive, in a fog, or easily perplexed).
- ADHD, ***Predominantly Hyperactive-Impulsive Type***: If Criterion 1B is met but Criterion 1A is not met for the past six months. (These children have difficulty with inhibiting their behaviour and with persisting behaviour).
- ADHD, ***Combined Type*****:** If criteria 1A and 1B are both met for the past 6 months.

(APA, 2000; Carr, 2006; Mash & Wolfe, 2005)

- **Inattention**

According to Mash and Barkley (2006), "attention" is a multidimensional construct that could refer to problems with selective or focused attention/concentration, attentiveness, distractibility, stimulation, sustained attention and, among others, hesitation span. It is difficult for inattentive children to focus on one task or follow through on instructions or requests during work or play. They find it very difficult to resist distractions, re-engage in initial tasks once they have been disrupted and find it difficult to sustain attention to tasks. These children often focus automatically on enjoyable activities, but as soon as they have to engage in monotonous, repetitive and dull activities, they lose attention. In some cases, extraneous stimuli distract the child, and in other cases, the child fails to persist and complete a task because he or she simply loses interest. Adults often complain that inattentive children do not follow instructions, do not listen and do not complete tasks, assignments or chores (Barkley, as cited in Kronenberger & Meyer, 1996).

Many types of attention exist, which makes it insufficient to say that a child has an attention deficit. The amount of information a person can retain and attend to in a short while is known as "attentional capacity". Children with ADHD can remember the same amount of information as other children for a short time; they do not have an attentional capacity deficit. The ability not to be distracted by stimuli and noise in the environment and to maintain focus and concentration on relevant stimuli is called "selective attention". A term that clearly describes a deficit in selective attention is "distractibility", which can cause disruptions in children with and without ADHD (Mash & Wolfe, 2005). However, children with ADHD are more prone to be distracted by appealing stimuli because of their difficulties with executive functioning and working memory that forms part of their larger domain of cognitive activities (Mash & Barkley, 2006; Mash & Wolfe, 2005).

As mentioned in section 2.2.3.3 of this chapter, children with ADHD have difficulty with different forms of inhibiting behaviour. Selective attention links with the concept of controlling interference, where a child needs to apply self-control in delaying a response while busy with another task (Barkley, 1997). As discussed in section 2.2.3.3, Barkley

(1997) writes that children with ADHD have difficulty to inhibit and self-regulate their emotions and levels of arousal. Controlling and managing emotions are challenging for a child who struggles with controlling interference and who has selective attention, as in the case of children with ADHD. The inability to control emotional responses can be associated with impulsivity as a diagnostic criterion of ADHD.

- **Impulsivity**

Impulsivity is one of the principal diagnostic features of ADHD (APA, 2000; Mash & Barkley, 2006; Sadock & Sadock, 2003). Children with ADHD have low impulse control; therefore, they act before they think and exhibit abrupt shifts in activity. These children lack a sense of organisation and structure in their daily tasks. Children with ADHD have difficulty awaiting their turn and find it hard to control their movements and actions (Sadock & Sadock, 2003). When children with ADHD become upset, they find it hard not to lash out in frustration (Mash & Wolfe, 2005).

Teachers often complain about children with ADHD shouting out, jumping up from their desks and interrupting others' conversations. These children find it very hard to regulate their behaviour in accordance with demands from adults and they find it hard to stop an ongoing activity. Tendencies of children with ADHD to be impulsive can cause reckless behaviour such as running into the road and minor mishaps such as knocking a glass off the table (Mash & Wolfe, 2005).

Cognitive impulsivity and behavioural impulsivity are the two categories in the domain of ADHD. With cognitive impulsivity, the child exhibits a need for supervision, hurried thinking and symptoms of disorganisation. Children with behavioural impulsivity often act out without considering the consequences of their actions. They also tend to shout out in class or interrupt others' conversations. Children with behavioural impulsivity find it hard to inhibit their response when the situation requires it, for example not to touch a boiling kettle to feel if the water inside will be hot. Academic underachievement, especially difficulty with reading, can be hampered by both these forms of impulsivity. Behavioural problems and anti-social behaviour can be caused only by behavioural impulsivity (Mash & Wolfe, 2005).

- **Hyperactivity**

Another principal diagnostic feature of ADHD is hyperactivity. In some situations, hyperactivity is more severe and prevalent (e.g. in class at school) than in other situations (e.g. during a one-on-one reading session). Hyperactive features seem to diminish when children are involved in pleasant, structured activities (e.g. ball games) that they enjoy doing. When hyperactivity is the predominant feature in the diagnosis, children are more likely to be referred for treatment than when attention deficit is the main diagnostic feature (APA, 2000; Mash & Barkley, 2006; Sadock & Sadock, 2003).

Hyperactive children exhibit excessively energetic and intense behaviour, as though they are driven by a motor. These children seem very busy and driven, but they are not very constructive because they are often not purpose driven (Mash & Wolfe, 2005). According to Mash and Wolfe (2005), children with ADHD exhibit more motor movement than children without ADHD, even while they are sleeping. The big difference between children with and without ADHD arises when they are expected to inhibit their movement. Hyperactive children also talk excessively, but often do not say much (Mash & Wolfe, 2005).

2.3.3 Etiology of ADHD

There are different opinions on what the causes of ADHD are. Mash and Wolfe (2005) state that it is insufficient to focus only on one possible cause of ADHD, as it is a complex disorder which affects numerous areas of functioning. There is no scientific evidence that indicate that factors such as toxic exposure, prematurity, prenatal mechanical insult to the fetal nervous system, food additives, preservatives or sugar contribute to, or are causes of, hyperactive behaviour. Genetic factors, developmental factors, neurological factors, neuropsychological factors, psychodynamic factors and psychosocial factors are deemed to initiate or perpetuate hyperactive and/or inattentive behaviour (Barkley, 2005; Sadock & Sadock, 2003).

According to the genetic discourse the occurrence of ADHD in biologically related families indicated the inheritability of faulty genes and that 57% of children with parents who have ADHD, have a chance to inherit the disorder (Barkley, 2003). Many of the current researchers support the role of the neurobiology of the brain as underpinning

theory. The frontal areas of the brain, which control impulsivity, attention and activity levels show less brain activity and decreased blood flow in children diagnosed with ADHD (Mash & Wolfe, 2005; Barkley, 2003). According to the neuropsychological discourse, impulsiveness and the inability to inhibit responses are due to a dysfunctional neuropsychological mechanism, which is located in the frontal lobes of the brain (Mash & Wolfe, 2005; Barkley, 2003; Sadock & Sadock, 2003). According to the psychodynamic discourse Rafalovich (2001) stated that the interaction between the child and his/her environment underlies the etiology of ADHD. The psychosocial discourse focuses on the parents' role to regulate and manage their children's behaviour and a lack thereof can lead to hyperactive behaviour (Barkley, 2005, 2003).

There are a variety of disorders that can inevitably be associated with ADHD, despite being short of an exact neurophysiological or neuro-chemical basis for the disorder (Carr, 2006; Sadock & Sadock, 2003). (The associated disorders will be discussed in section 2.3.7). Attachment Theory was used as theoretical framework in this study and therefore psychodynamic and psychosocial factors were considered as eminent. It was, however, important to consider the 10-year old girl's profile (see section 4.3.1) and to keep in mind that her diagnoses of ADHD and the associated disorders of Sensory Integration Disorder and Developmental Co-ordination Disorder could have an impact on each other and one would question which disorder leads to, or perpetuates the next.

2.3.4 Prevalence

ADHD affects millions of children worldwide across all socio-economic levels of society (Mash & Barkley, 2006). Although sampling methods vary widely, it has been estimated that 3%-7% of school-age children have ADHD (APA, 2000; Mash & Barkley, 2006; Sadock & Sadock, 2003). ADHD is one of the most common referral problems worldwide. Half of all children referred to clinics display symptoms of only ADHD or in combination with other disorders. To identify a child with ADHD, it is crucial to have reports from the teacher, parents and the doctor. It is not an easy diagnosis to make because children behave differently in different settings and people involved in identifying ADHD behaviour emphasise different symptoms. When children show oppositional symptoms, teachers are more prone to rate a child as inattentive. Teacher ratings are better predictors of later anti-social behaviour that those of the parents. The

prevalence of ADHD varies due to differences in the nature of the population and the different methods of selecting samples. There are also different definitions of the disorder and a variation in ages of the samples, which makes the prevalence vary (APA, 2000; Mash & Barkley, 2006; Sadock & Sadock, 2003).

2.3.5 Gender

Approximately three times more boys than girls have ADHD, and the disorder decreases in both sexes across development (Mash & Barkley, 2006). Boys often tend to be referred more due to higher levels of aggression and defiance. It is found that when girls exhibit these behaviours, they are referred sooner that boys due to adults' greater concern about ADHD behaviour in girls. Teachers often fail to recognise and report girls with inattentive behaviour because their behaviour is normally not associated with disruptive problems. They are more likely than boys to display disorganised and inattentive symptoms such as sluggishness, forgetfulness, drowsiness and a tendency to daydream. Girls with ADHD are also more prone to develop mood, conduct and anxiety disorders. They also tend to have greater impairment on measures of school, social and family functioning and lower IQ and school achievement scores (APA, 2000; Mash & Wolfe, 2005; Sadock & Sadock, 2003).

2.3.6 Related Characteristics

Children with ADHD often exhibit other related characteristics in addition to their primary difficulties. These include cognitive deficits, medical and physical concerns, speech and language impairments and social problems (Mash & Wolfe, 2005). Children with ADHD have a predisposition to develop additional difficulties. Therefore, there are often delays in these children's physical development, academic achievement, motor co-ordination, intelligence and adaptive functioning (Barkley, 2005).

2.3.7 Co-morbid Psychological Disorders

The treatment of ADHD is challenging because as much as 87% of children with ADHD has another co-occurring psychological disorder, and as much as 67% of children with ADHD have at least two other disorders. As noted previously, learning disorders and motor co-ordination problems in addition to ADHD are quite common (APA, 2000;

Barkley, 2005; Mash & Wolfe, 2005; Sadock & Sadock, 2003). The following sections will discuss specific co-morbid disorders.

- **Developmental Co-ordination Disorder (DCD)**

According to Barkley (2005), there is a high prevalence of children diagnosed with ADHD who experience difficulties with physical development. "As many as 52% of children with ADHD compared to up to 35% of children without ADHD are likely to have poor motor co-ordination, such as buttoning, tying shoelaces, drawing and writing" (Barkley, 2005, p. 126).

Developmental co-ordination disorder is characterised by low performance in activities that require motor co-ordination, as is evident as early as infancy in some cases. The essential clinical feature is manifested in delays in developmental motor milestones, such as sitting, crawling, standing, walking etc. (APA, 2000; Sadock & Sadock, 2003).

- **Sensory Integration Disorder (SID)**

Sensory integration is the ability to take in information through the senses of touch, movement, smell, taste, vision and hearing, and to combine the resulting perceptions with prior information, memories and knowledge already stored in the brain to derive coherent meaning from processing the stimuli (Stock-Kranowitz, 2005). An occupational therapist, A. Jean Ayres (PhD), was the first to ascribe inefficient neurological processing to sensory problems. She developed the theory of sensory integration in the 1950s and 1960s.

Sensory integration dysfunction (SID) is also called sensory processing disorder (SPD). The former will be referred to in this study. SID is a neurological disorder causing difficulties with the processing of sensory information. Dr Miller and her team used Dr Ayres's original concepts of SID to classify the diagnostic groups. In their classification, SID is the umbrella term encompassing three key categories, namely sensory modulation disorder (sensory under-responsiveness, over-responsiveness and sensory seeking), sensory discrimination disorder and sensory-based motor disorder (postural disorder and dyspraxia) (Stock-Kranowitz, 2005). According to Stock-Kranowitz (2005, p. 319), sensory modulation disorder is "the inability to regulate or organize the degree, intensity and nature of response to sensory input in a graded and adaptive manner".

Sensory discrimination disorder is defined as "problems in discerning the characteristics of sensory stimuli and the differences among and between stimuli" (Stock-Kranowitz, 2005, p. 318). Stock-Kranowitz (2005, p. 318) defines sensory-based motor disorder as "a problem with movement, such as Postural Disorder and Dyspraxia, resulting from inefficient sensory processing".

SID is its own diagnosis, but it can also be linked to other neurological conditions, including ADHD and developmental co-ordination disorder (Stock-Kranowitz, 2005). Therefore, children who receive the diagnosis of ADHD may also have signs of sensory integration dysfunction. However, a child may be mistakenly labelled with ADHD or ADD because impulsivity has been observed, when actually this impulsivity is limited to sensory seeking or avoiding. A child might jump out of his seat in class regularly despite multiple warnings and threats because his poor body awareness causes him to fall out of his seat, and his anxiety over this potential problem causes him to avoid sitting whenever possible (Stock-Kranowitz, 2005).

- **Oppositional Defiant Disorder and Conduct Disorder**

It has been shown that children with ADHD are less compliant, more negative and less able to sustain compliance with their parents or teachers during task completion. Parents of children with ADHD seem to be more directive and negative, more negligent in their discipline, show lower levels of maternal coping and are less rewarding and responsive to the child's behaviour (Mash & Barkley, 2006). Approximately half of all children with ADHD (of whom most are boys) meet the criteria for oppositional defiant disorder (ODD). It is found that about 30%-50% of the children with ADHD develop conduct disorder (CD). These children are obstinate, argumentative and short-tempered. Genetics, environmental deficits and family adversity are predisposing factors contributing to the development of ADHD, ODD and CD (Mash & Barkley, 2006; Mash & Wolfe, 2005).

- **Anxiety Disorders**

The strongest link between ADHD and anxiety disorders seems to involve the predominantly inattentive type. Children who have an early onset of ADHD seem to be less anxious than children who have a later onset. Approximately 25% of children with ADHD (especially young boys) experience severe anxiety. They constantly seek

reassurance and are tense about their safety and protection. Children who have a co-morbid anxiety disorder do not like trying anything new, they do not want to be taken away from their parents, they do not like visiting the doctor and making social contacts. The child's behaviour and thinking are affected negatively by the severe anxiety (Mash & Barkley, 2006; Mash & Wolfe, 2005).

- **Mood Disorders**

Children with ADHD often feel overwhelmed, hopeless and unable to cope with everyday life. It has been found that as many as 20%-30% of children with ADHD experience depression (Mash & Wolfe, 2005). When the ADHD is accompanied by an additional CD, it is likely that the child could develop a mood disorder by adolescence or early adulthood. The child's self-esteem is lowered by the depression and it contributes to disrupting the child's sleeping patterns, appetite and ability to think. Depression in children with ADHD is possibly caused by being demoralised and/or a family predisposition. It is important to discern between childhood bipolar disorder (BP) and ADHD. "The relation between ADHD and bipolar disorder is controversial. A diagnosis of childhood BP appears to sharply increase the child's risk for previous or co-occurring ADHD, but a diagnosis of ADHD does not appear to increase the child's risk for BP" (Mash & Wolfe, 2005, p. 124).

2.4 ADHD and Emotion Regulation

As mentioned in section 2.2.3.3 of this chapter, Barkley elaborates on the evidence for deficits in self-regulation of affect and motivational arousal in his book *ADHD and the Nature of Self-control* (1997). Barkley developed a model to represent the four executive functions that depend on behavioural inhibition. These executive functions include "(1) non-verbal working memory, (2) internalization of speech (verbal working memory), (3) the self-regulation of affect/motivation/arousal, and (4) reconstitution" (Barkley, 1997, p. 154).

Seeing that this study explores the emotion regulation characteristics of a child with ADHD, I will shed light on the third component of Barkley's hybrid model, namely the self-regulation of affect/motivation/arousal. According to Barkley (1997), the hybrid model predicts certain traits of children who have deficiencies in inhibition.

> These children are prone to show (1) greater emotional reactivity to emotionally charged immediate events; (2) less anticipatory emotional reactions to future emotionally charged events (in view of the decreased capacity for forethought); (3) decreased ability to act with the impact of their emotions on others in mind; (4) less capacity to induce and regulate emotional, drive or motivational, and arousal states in the service of goal-directed behaviour (the further away in time the goal, the greater the incapacity to sustain the arousal and motivation toward the goal), with the corollary characteristic of (5) a greater dependence within the immediate context upon external sources affecting motivation and arousal in determining the degree of persistence of effort in goal-directed actions (Barkley, 1997, pp. 285-286).

With the absence of external awards, these children will find it hard to apply effort to self-regulate or exhibit goal-directed behaviour. Their motivation is less "internally guided" or "rule-governed" and more inconsistent or unpredictable (Barkley, 1997, p. 286). According to research studies by Garber and Dodge, Kopp, Mischel et al. (as cited in Barkley, 1997), the development of self-regulation of emotion and motivation depends on the development of inhibition. These findings imply that the delay in inhibiting behaviour can be associated with less motivational and affective self-control (Barkley, 1997). It has been found that emotional self-control is problematic for children with ADHD. This is seen in the light of their often having to deal with numerous failures and subsequent emotional reactions and high frustration levels due to cognitive deficits (working memory) and having co-morbid learning difficulties (Barkley, 1997). Mash (as cited in Barkley, 1997) found that children with ADHD have greater emotional reactivity in social interactions, in the sense that they are more negative and emotional in their communication with peers and display greater emotional modulation when communicating with their mothers. However, Barkley's hybrid model predicts that children with ADHD do not perceive and recognise others' emotions differently from children without ADHD. This prediction is in line with the findings of a study by Shapiro (as cited in Barkley, 1997) in 1993.

In this study, the assumption that children with ADHD have difficulty to regulate their emotions and therefore have difficulty to control their emotional responses in certain situations is explored with specific focus on the parent-child interaction and attachment as theoretical perspective. Cassidy (1994) examined the influence of children's attachment experiences on their emotion regulation characteristics. Attachment Theory claims that, in order to achieve one's goal in maintaining proximity to an attachment figure, one has to regulate one's emotions, which implies that there has to be an

adaptive nature to emotion regulation (Bowlby, 1969, 1973, 1980; Cassidy, 1994). Thompson (1994) identified three themes in his definition of emotion regulation, including (a) the containment and intensifying of emotions, (b) the regulation of attention, and (c) the intrinsic (e.g. temperament) and extrinsic factors (parent-child relationship) involved in the regulation of emotions.

The parent-child relationship plays a vital role in teaching the child various ways to regulate his/her emotions in order to reach specific goals (Thompson, 1994). Cassidy (1994) quotes Main when stating that an infant adjusts his/her behaviour according to the experiences gained from the particular type of care received. According to Bowlby (1969, 1973, 1980), through daily experiences with the caregiver in the first year of life, the infant develops an internal working model, which is a set of expectations of the parent's behaviour and responses to the infant's signals. Infants regulate their emotions according to the expectations set by the internal working model. The suggestion that the parent-child interaction might have an influence on emotion regulation indicates that there is a definite relationship between attachment pattern and emotion regulation seeing that it reflects a relationship-based approach (Cassidy, 1994). According to Sheffield-Morris, Silk, Steinberg, Myers and Robinson (2007), the emotional climate between the parent and child reflects the attachment between the parent and the child.

According to a review by Sheffield-Morris et al. (2007, p. 362), the family context can affect the development of emotion regulation in three ways. First, children are exposed to parents' emotion regulation characteristics and therefore learn through observation. Second, the socialisation of emotions that are related to parenting behaviour and practices affect emotion regulation. Third, the quality of the attachment relationship, the emotional quality of the marital relationship, family expressiveness and parenting styles, which reflect the emotional climate of the family, affect the development of the skill to regulate emotion.

Bowlby (1980, p. 40) defines attachment in terms of an "affectional" bond between a parent and an infant when stating, "The most intense emotions arise during the formation, the maintenance, the disruption and the renewal of attachment relationships." In their study on attachment between mother and child in later middle childhood, Kerns, Abraham, Schlegelmilch and Morgan (2007) emphasise that emotion is an integral

feature of attachment. They use the example of securely attached children who contact their attachment figure in order to help them regulate their emotions. According to Cassidy (1994), one will find different patterns of emotion regulation in secure, avoidant and ambivalent attachment relationships. Relatively little research has investigated the relation between emotional development and attachment. Research has shown that a child with negative emotionality and a subsequent intense emotional nature has difficulty regulating his or her emotions (Rothbart & Bates; Contreras et al., as cited in Kerns et al., 2007). This study explored the phenomenon of a child with ADHD who had difficulty regulating her emotions and focused on the attachment between the parents and the child and the parents' role in regulating her emotions.

The next section will refer to previous studies on Attachment Theory and children with ADHD. The studies that will be referred to will specifically focus on, amongst others, interaction between parent and child, quality of parenting, parental involvement, the role of familial and environmental stressors, emotion regulation characteristics and parents' reflective functioning on their child diagnosed with ADHD.

2.5 STUDIES ON ATTACHMENT THEORY AND ADHD

In their study, Jacobvitz and Sroufe (1987) claim that many researchers have focused on environmental, but more specifically, organic influences (such as motor co-ordination) on the development of ADHD among children. Only a few researchers have investigated the influence of the relationship between parent and child on the development of ADHD. Their longitudinal study also drew on retrospective reports and focused on the psychogenic influences and the role of regulating arousal in the early relationship between caregiver and child on the development of ADHD. Organic and experiential factors play an important role in regulating arousal, and children with ADHD struggle to meet situational demands due to difficulty in regulating their levels of arousal. As quoted in Jacobvitz and Sroufe (1987), Brazelton, Loslowski, Main, Sander and Stern emphasise the responsibility of the caregiver in the relationship between parent and child relationship to regulate the child's levels of arousal through being sensitively attuned to their emotional needs. The caregiver is sensitive to the cues in providing stimulation when the infant is under-aroused, and when the infant is over-excited, they reduce the stimulation. The child gradually takes over and starts regulating

his/her own levels of arousal. Maternal "intrusiveness" has consequences for the infant's modulation of arousal at a later stage. The hypothesis is that caregivers of children with ADHD might exhibit over-stimulating behaviour during the early dyadic relationship. Jacobvitz and Sroufe (1987, p. 1502) found that a variety of factors can influence the development of ADHD, but that "over-stimulating care" plays a predominant role in the development of ADHD for some hyperactive children.

According to Erdman (1998), Attachment Theory has been linked to a number of studies on behavioural problems, specifically with regard to conduct disorders, but very few have been linked to ADHD. The aim of Erdman's study in 1998 was to provide an alternative way of viewing children who exhibit behavioural problems, because certain behaviours resemble symptoms of ADHD. Parental attachment patterns formed the context for Erdman's study on explaining the aggressive and disruptive behaviour of children with ADHD. Erdman does not doubt the existence of ADHD, but he challenges the role of a child's context and the attachment relationship between parent and child (Erdman, 1998).

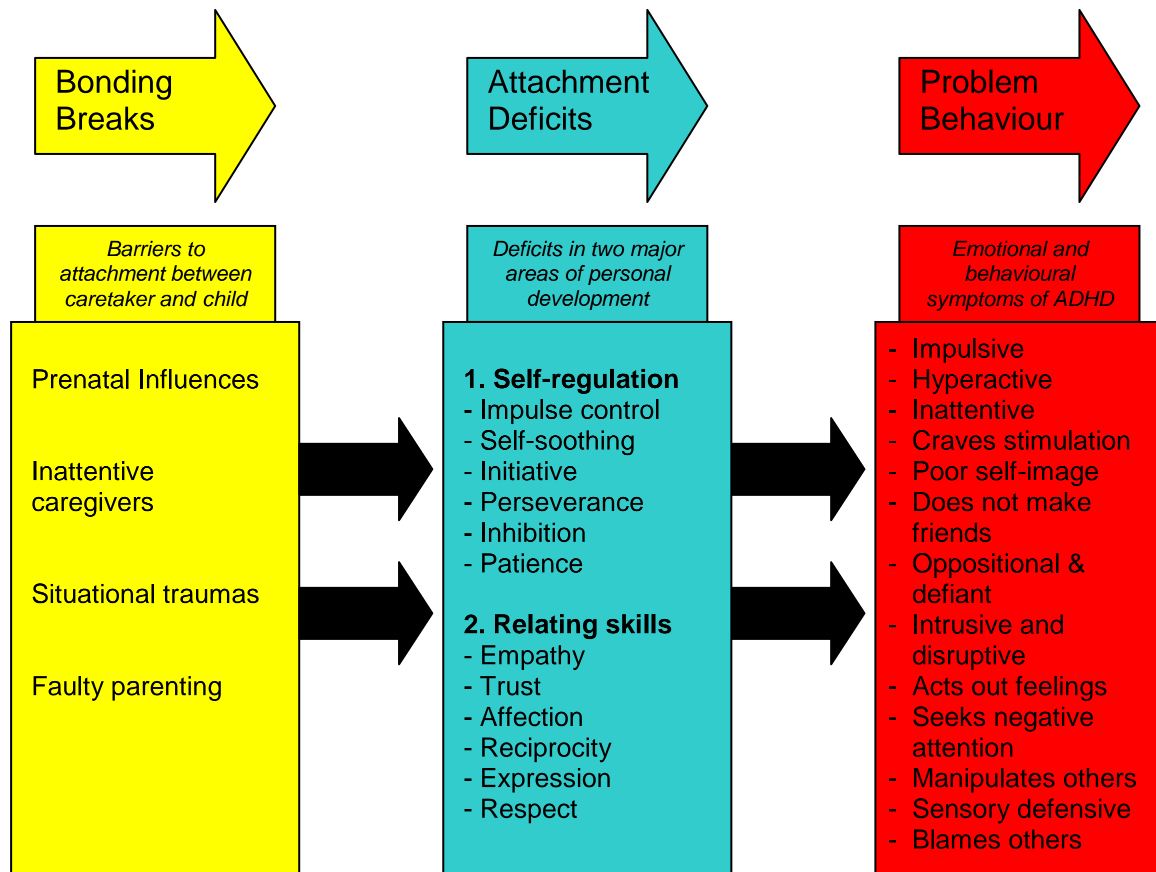
As mentioned in chapter 1, Neven et al. (2002) did research on the emotion regulation of children with ADHD. She cites Grainger when stating that the development of self-control and self-management are important foundations for a child to learn. It has been found that children with ADHD often have learning difficulties (Grainger, as cited in Neven et al., 2002). The ability to self-regulate is important in every area of a child's development. Parents play a significant role in co-regulating a young child's emotions in order for the child to learn how to regulate his/her emotions independently. This is done by getting "in tune with the baby" and to constantly "hold the baby in mind" (Neven et al., 2002, p. 101). Therefore, in their research, Neven at al. (2002) claim that the relationship between parent and child is deemed significant in the development of emotion regulation.

Worldwide, children are increasingly diagnosed with ADHD (Erdman, 1998). Approximately half of the diagnoses made at mental health agencies are accounted for by ADHD (Daw, as cited in Erdman, 1998). Experiential research is necessary in looking at the attachment context of a child functioning with ADHD and its related symptoms. Ladnier and Massanari (2000) worked with three children who initially

appeared to have met the diagnostic criteria for ADHD. An interesting coincidence was revealed after detailed biopsychosocial assessments on these children. The first of these coincidences was that each of these children had experienced over-stimulation and under-soothing in the first two years of their lives. Depending on where the children were and what they were doing, the behaviour of all three these children could be described as hyperactive, inattentive and impulsive. These children could not sustain friendships with peers. Their personalities shared two significant deficits in important areas, namely the ability to regulate behaviour and emotions and the ability to form healthy relationships with others. These classic symptoms are consistent with a child who has an attachment disorder. They also based their study on the possible connection between ADHD and attachment failure and the possibility of developing a developmental model (based on Attachment Theory) that would provide a suitable and plausible account for the origin of ADHD. Their question is whether ADHD should not rather be treated as *attachment* deficit/hyperactivity disorder (Ladnier & Massanari, 2000).

Ladnier and Massanari (2000) spent four years investigating the origins of ADHD. They developed an etiological model (see Figure 2.3) to explain and present the effect that attachment trauma, in the absence of remedial parenting, can have on the development of deficits in the child's behaviour. According to them, these developmental deficits manifest as symptoms of ADHD. Their theoretical model is based on three assumptions. First, a child with ADHD has experienced some kind of break in bonding. Second, the process of developing a secure attachment between parent and child has been hindered by the break in bonding and therefore caused developmental deficits to develop in the child. Third, the family system was not resilient and healthy enough to overcome those deficits. "We theorize that the failure to attach to an adult caregiver constitutes psychological and physiological trauma that interferes with an infant's neurological and hormonal maturation, resulting in developmental delays (attachment deficits) that are reflected in emotional and behavioural problems" (Ladnier & Massanari, 2000, p. 35).

Figure 2.3: Ladnier and Massanari's developmental model for the origin of ADHD (Levy, 2000, p.35)



In her study, Stiefel (1997) proposed to define a possible pathway to ADHD. This pathway proposes that one is at risk of developing ADHD in the presence of early and multiple family stressors. These risk factors lead to attachment difficulties in the relationship between parent and child. "While early stress and attachment difficulties are not always a necessary cause in the development of ADHD, at least in some children they may be sufficient" (Stiefel, 1997, p. 47). This study argues that the young child's development of competence to self-regulate is influenced by the attachment relationship between parent and child.

According to Barkley, Cantwell, Frick & Lahey, as quoted in Clarke et al. (2002), research on ADHD has traditionally focussed on psychological factors as peripheral to the cause of the disorder, but identified organic or neurological dysfunctions as primary causes. The role of the quality of parenting and other psychosocial issues in the etiology of ADHD has not been addressed sufficiently (Clarke et al., 2002). The overt behaviours

of a child should be considered in the context of family dynamics and interactions. Erdman, Newman, Olson and Stiefel, as quoted in Clarke et al. (2002) propose that Attachment Theory, "which provides a basis for understanding socio-emotional dysfunction within this broader context", provides an imperative viewpoint on the development of attachment. In their controlled study of the quality of attachment representations in a group of boys with ADHD, Clarke et al. (2002) examined the association between an insecure attachment and ADHD. This study verified the value of Attachment Theory and methodology for understanding children diagnosed with ADHD. "A broader approach to clinical assessment is required that considers the child's behaviours in the context of quality of attachment relationships and other psychological factors. This approach will facilitate the implementation of more comprehensive and, it is hoped, effective treatment of these children and their families" (Clarke et al., 2002, p. 194).

In their study, Concoran and Dattalo (2006) undertook a meta-analysis of the effect of parent-involved psychosocial treatment on outcomes relevant to children with ADHD. It was found that these children's academic performance and internalising symptoms were affected positively by family involvement, but there was little effect on the ADHD characteristics of these children after treatment. Other interventions are also necessary to affect ADHD and external symptoms (Concoran & Dattalo, 2006).

Brown, McBride, Shin and Bost (2007) examined parenting predictors of attachment security between father and child in early childhood. Lamb and Tamis-Lemonda, as cited in Brown et al. (2007), claim that there has been an increase in involving fathers in child and family development studies. In their study, they explored involvement of fathers by referring to quality of paternal parenting, paternal involvement and attachment between father and child. The focus was not on the amount of parental involvement that the fathers engage in, but the quality of involvement. They state that paternal involvement and attachment will be explored further in future studies to investigate the influence on the attachment security between father and child.

Family interactions in children with ADHD and without ADHD were compared in a study by Tripp, Schaughency, Langlands and Mouat (2007). The researchers particularly focused on the quality and competence of interaction between parents and children.

The quality measures of interaction were warmth, engagement and communication. It was found that warmth and engagement were reduced during problem-solving activities if the child with ADHD had a co-morbid disruptive behaviour diagnosis. In general, the family interactions were more positive during the playing of games than during problem-solving activities (Tripp et al., 2007).

Parenting research has been focusing more on mothers' parenting approaches and interventions than on fathers' approaches and interventions. Fabiano (2007) reviewed literature on behavioural parent training (BPT) for ADHD to investigate involvement of fathers in BPT. The majority of research studies are composed of mothers as participants, and 87% of the reviewed studies did not include father-related outcomes. Fabiano (2007) established the expectation that involvement of fathers in initial clinical and treatment contacts should escalate and offered strategies to increase involvement of fathers during BPT programmes.

Because of the lack of research on the pattern of relations that exist between ADHD and relationships between parents and children in a longitudinal context, Lifford, Harold and Thapar (2008) conducted a study on the relationship between displays of rejection in the relationship between parent and child and the symptoms of a child with ADHD. Clinical intervention and psychological research studies propose that there are bidirectional influences between the relationship between parent and child relations and overt child behaviour. The results indicated a difference in the direction of effects linking a child's ADHD symptoms and rejection of the child by the mother and/or father. The relationship between mother and child was affected by the ADHD symptoms, and the relationship between father and child was affected by the changing pattern of affects (Lifford et al., 2008).

This study addressed a gap in research on attachment emotion regulation characteristics of a girl diagnosed with ADHD. Clarke et al. (2002) identified the gap in research on girls with ADHD in their limitations and directions for future research, as the majority of previous studies involve boys. Lewis, Feiring, McGuffog and Jaskir and Olson, Bates and Bayles (1990), as cited in Clarke et al. (2002), identified the necessity of a study on girls with ADHD, given the probability of child gender effects on parenting

and some reports of gender differences in the relationship between attachment and adjustment in childhood.

2.6 CONCLUSION

Evidently, there is a lack in research that links Attachment Theory to ADHD. In-depth research that covers a wide spectrum of topics such as identification, diagnosis, treatment, medication, diet, the influence of ADHD (e.g. on the family, siblings, peers, children with ADHD etc.) the experience of having ADHD, symptoms, parental training, family support and so forth has been done in the field of ADHD. A significant number of studies also focus on the interactions, relationships and involvement in families with children who have ADHD, but there is a gap in research that explores the emotion regulation characteristics of girls diagnosed with ADHD through the perspective of attachment between parent and child. This study specifically focused on the emotion regulation characteristics of a girl diagnosed with ADHD.

The following chapter will focus on the research methodology of this study.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 INTRODUCTION

The research design and methodology of this study will be discussed in this chapter. First, I shall discuss the design and provide a description of the aims of the research, and then describe the method that was followed in the research. This is followed by particular attention to the selection of participants, data production and the data verification in my description of the methodology. Ethical issues will also be discussed and, finally, a description of the process of data analysis will conclude the chapter.

3.2 RESEARCH QUESTION AND AIMS

A qualitative research question asks about some “process, issue or phenomenon that is to be explored”, according to Johnson and Christensen (2008, p. 79). One or more research questions guide most qualitative research projects and can be described as a statement of the purpose of the study. The research question(s) helps to focus the study and clarifies the phenomenon that is being investigated or explored in the study. These questions are general, open-ended and over-arching; therefore, they cannot be answered with a simple "yes" or "no". A research question calls for an answer that provides detailed descriptions and, where possible, also explanations of some process or phenomenon (Johnson & Christensen, 2008).

I used a research question to direct this study and produce significant data about the phenomenon under exploration, because I wanted to reach an understanding of it. The following primary research question served as the guide for this study:

> **What are the emotion regulation characteristics of a 10-year-old girl diagnosed with ADHD, given the research on attachment and ADHD?**

To answer the research question stated in chapter 1, the aim of this study was to explore the emotion regulation characteristics of a child diagnosed with ADHD. The influence of her attachment history and relationship with her parents on her functioning was also explored. Her additional diagnoses (DCD and SID) were taken into account when placing the study in context, but were not considered as having an influence on the child's emotion regulation characteristics. The focus was on the emotion regulation characteristics of a child diagnosed with ADHD, following previous research and literature on the difficulty that these children are assumed to have with the regulation of emotion.

The following secondary questions informed this study and were important because they helped to restate and address the aim and purpose of the study:

- What is the nature of self-regulation in this child who has been diagnosed with ADHD?
- In which way are emotions and feelings among family members recognised and reflected?
- Are the parents able to reflect on their own emotions?
- In which way does the diagnosis of ADHD affect the parent's reflective functioning towards the child who is diagnosed?
- Does the child with the diagnosis claim specifically more time from the parents than the other children?

As the researcher, I gave the reader access to the subjective experiences of the child and parents, accounting for experiences that might not be obvious by translating the data. The main focus was to address the research questions and thus explore attachment between the parent and the child and its influence on the emotion regulation characteristics of the child diagnosed with ADHD. This purpose can be reached through an empathic identification with the parents and child and by trying to reach an understanding of their subjective experiences (Johnson and Christensen, 2008). After this research problem had been identified, I selected an appropriate research paradigm to answer and address the research question and aims.

3.3 RESEARCH PARADIGM

According to Terre Blanche, Durrheim and Painter (2006), the paradigm is central to the research design. The research problem and the manner in which the research is conducted are influenced by the paradigm of the researcher. The paradigm directs the study and helps the researcher with an approach to reach a destination for the study. The paradigm establishes the point of view and point of departure of the study. A useful metaphor to describe the role of the paradigm is a road map because it gives direction, structure and landmarks to meet certain ends (Terre Blanche et al., 2006).

This study was conducted within an interpretive/constructivist research paradigm. Donald, Lazarus and Lolwana (2006) state that individual people are understood in relation to their social context when one works from a theoretical perspective. Merriam (2002) states that, with an interpretive research paradigm, the researcher studies social phenomena and learns how individuals experience and interact with their social world and the meaning it has for them. According to Mertens (2005), it is assumed that knowledge is socially constructed by the people involved in the research process, and this underpins the interpretive/constructivist approach. Mertens (1998) also suggests an interactive link between the researcher and the researched phenomenon and that there is a reciprocal influence of the one on the other. The researcher's values are intertwined with the research, thus creating space for subjective interpretations. Terre Blanche, Durrheim & Painter (2006) confirm that, according to the interpretive research paradigm, it is assumed that we can understand others' experiences by interacting with them and that people's subjective experiences are real. Terre Blanche et al. (2006) emphasise the importance of determining the nature of experiences in the context where they occur. It is important to study feelings, experiences, social situations and phenomena in their natural settings to enable interpretive researchers to make sense of them as they occur in the real world (Terre Blanche et al., 2006). The process by which the researcher arrives at the interpretation of human action is explained by Schwandt (1997) as understanding. Schwandt (1997, p. 225) adds that understanding is "less like a process of getting inside the actor's head than it is a matter of grasping inter-subjective meanings and symbolizing activities that are constitutive of social life."

The interpretive/constructivist paradigm has created the opportunity in this study to understand and subjectively interpret the emotion regulation characteristics of a ten-year-old girl diagnosed with ADHD through the lens of Attachment Theory. It also allows the subjective understanding of the nature of self-regulation in this child and the way in which emotions and feelings among family members are recognised and reflected.
In view of the above, a qualitative research design was deemed appropriate for this study. According to Merriam (2002), the two key characteristics of a qualitative research design are, first, the striving of the researcher to understand the meaning that people have constructed to their experiences and their worlds, and second, that the primary instrument for data collection and analysis of the data is the researcher.

3.4 RESEARCH DESIGN

Babbie and Mouton’s (2001) understanding of the term "research design" is used in my study. According to them, the research design refers to the aims and data needed to address the research questions. Methodology refers to the processes and actions used in producing and implementing data (Babbie & Mouton, 2001). It is explained that the research design refers to the overall blueprint or plan according to which the data (information) will be assembled, organised and integrated. The assembling, organising and integration of data will then result in a specific product. According to Babbie and Mouton (2001) and Merriam (2002), the world view of the researcher, the nature of the research problem, the questions it raises and the desired product will determine the type of design that is used.

A qualitative research design was selected to explore the research question. A single case study was used as research method. According to Merriam (2002) and Mertens (2005), an in-depth description of a specific phenomenon is provided by the design of qualitative research. Data is produced in the form of words, images or categories rather than numbers in qualitative research. Data from a qualitative study are used to communicate what the researcher has learned about the phenomenon. The findings are documented in the form of a narrative report with contextual descriptions and direct quotations from the research participant (Johnson & Christensen, 2008). Therefore, qualitative research is concerned with the study of phenomena as they are lived and experienced; in other words, in their natural settings (Johnson & Christensen, 2008;

Merriam, 2002; Mertens, 2005). Rather than being interested in the outcomes, the interest of a qualitative study is in the process. Denzin and Lincoln, as cited in Mertens (2005, p. 230), elaborate on qualitative research as follows:

> Qualitative research involves the studied use and collection of a variety of empirical materials - case study; personal experience; introspection; life story; interview; artefacts; cultural texts and productions; observational, historical, interactional and visual texts - that describe routine and problematic moments and meanings in individual's lives. (Denzin & Lincoln, 2005, p. 3)

Qualitative research can reveal how all the parts work together to form a whole (Merriam, 1998). Since the concern was to explore the emotion regulation characteristics of a child diagnosed with ADHD, qualitative research was deemed appropriate. A qualitative or descriptive research design aims to examine phenomena or events in their natural setting; in other words, in the way that they are lived (Leedy, 2001). The researcher takes things as they are and there is no manipulation or treatment of the subject matter. Leedy points out that the researcher might even have personal experience related to the phenomenon and might therefore feel interested in studying people's experiences and perceptions and the meaning they attach to these experiences. The qualitative research design directed the study and created a framework to address the research aims and answer the research question of the study. Babbie and Mouton (2001, p.75) state, "The research question determines the types of measurement, research methods and the sequence in which the study is employed."

Key aspects of the relevance of qualitative research to this study include the following:

- Qualitative study takes place in the real world in which the phenomenon takes place (Merriam, 2002);
- People's behaviour is studied in their natural environment; therefore, the context in which it occurs is studied (Johnson & Christensen, 2008).
- The nature of qualitative research is inductive. Rather than testing abstractions, concepts, hypotheses or theories, they are built (Mertens, 2005; Merriam, 1998, 2002);
- In qualitative research, the nature of reality is personal, subjective and constructed socially (Johnson & Christensen, 2008).

- The main instrument of data collection and analysis is the researcher (Mertens, 2005; Merriam, 1998). In qualitative research, several methods of data collection are used, of which interviewing, observation, document review and a literature review were employed in this study.

3.5 RESEARCH METHOD

The underlying principle for the procedures that the researcher chooses is determined by the chosen methodology (Merriam, 2002; Mertens, 2005). Mouton (2001) takes a more rational view in which he describes research methodology as the accurate, methodical and systematic implementation of the research design. The distinction between the terms method and methodology is important. Method refers to the techniques used to produce the evidence or data, whereas methodology is an interpretive framework that guides the research process, according to Henning (2004). In this study, the research method was a single case study with semi-structured interviews, observations, information from documents and artefacts and a literature review as data-production techniques.

3.5.1 Single Case Study

Henning (2004) cites Stake in indicating that, in broad terms, a case study is an empirical inquiry in which a contemporary phenomenon is being "investigated" in its real context. A single unit is under intensive investigation in a case study (Babbie & Mouton, 2006). The concepts and processes that define a qualitative single case study include the unit of analysis, the bounded system, the process of investigation and the product (Henning, 2004; Merriam, 1998). The case is defined as a single entity, a unit around which there are boundaries, according to Stake (as cited in Henning, 2004). Johnson and Christensen (2008, p. 406) also refer to a case as a "bounded system" and elaborate by saying that a system "is a set of interrelated elements that form an organised whole…'Bounded' is added to emphasize the outline or boundaries of the system". In case studies, individuals are studied as individuals, not as members of a group. Terre Blanche et al. (2006, p. 460) refer to this as an "ideographic research method". According to Henning (2004), the case as unit of analysis is the chief

characteristic of this method of research. Individuals who function as part of an individual family will be examined as the unit of analysis in this study.

"The unit of analysis refers to the ‘what’ of your study: what object, phenomenon, entity, process, or event you are interested in investigating (Babbie and Mouton, 2001, p. 84)." In this study, the unit of analysis was a family with a ten-year-old daughter who has been diagnosed with ADHD and with accompanying diagnoses of DCD and SID. The attachment relationship with her parents/primary caregivers and her emotion regulation characteristics formed part of the unit of analysis. The focus was on the interaction between the parents and the child and how they responded to each other’s display of emotions, actions and gestures. The parent-child interaction was observed during specific times of day (e.g. before school, after school and at bedtime). As mentioned in section 1.4 of chapter 1, this single case study explored the assumption that children with ADHD struggle to express and regulate their emotions.

Stake (2005) points out that a case study is generally appropriate for a study interested in detailed, specific information in a particular context. The case researcher seeks out particularities and commonalities about the case, but the end result often presents something unique. This uniqueness can extend to the historical background, physical setting, nature and other contexts of the case, other cases through which this case can be recognised and, finally, the participants through whom the case is revealed (Stake, 2005).

When starting a single case study, one will not always know what issues, perceptions and useful theories might evolve during the study (Stake, 2005). Usually, researchers decide on which themes to focus their research only as the study develops. Case researchers enter the field anticipating that certain relationships, events and problems will be important. Other important aspects are discovered in the process, and it is often found that the ones they anticipated would be important have little consequence. The case develops in the process of producing data and writing, and in addition, the working definition of the case can change during the process. Stake (2005) points out that the researcher decides which case story will be communicated. However, the researcher is committed to empathy and multiple realities and guided by what the case indicates is most important. More will be pursued than will be volunteered and more will be learned

than will be reported (Stake, 2005). A comprehensive understanding gained through description of the phenomenon under study is the product of a single case study (Merriam, 2002). Case study researchers use various methods and sources in producing data to understand and answer the research question thoroughly and accurately (Johnson & Christensen, 2008). To produce the data required to answer the research question, the researcher had to select research participants purposively.

3.5.2 Selection of Participants and Selection Criteria

Purposive sampling is based on the assumption that the researcher wants to understand a phenomenon. Therefore, participants with specific characteristics of interest to the study, from whom much could be learnt, was selected (Johnson & Christensen, 2008). In this study, purposive sampling allowed me to select participants who fulfilled the selection criteria described in section 1.7 of chapter 1. The selection criterion was a family consisting of one or more caregivers who have a child diagnosed with ADHD. Purposive sampling is done in order to include participants who are knowledgeable and 'information rich'. By purposively selecting the family I worked with, after being introduced to them by a friend, I naturally included all the participants relevant to the study.

> [In] purposive sampling…participants are selected according to criteria of relevance to the research question. This means that the group of participants is homogeneous to the extent that they share the experience of a particular condition, event or situation (Willig, 2001, p. 58).

Therefore, I did not just include any willing participant, but purposive sampling was performed to include knowledgeable participants who would share their experiences and contribute to answering the research question. Purposive sampling allowed the researcher to choose this specific family with a girl who is diagnosed with ADHD to answer the research question.

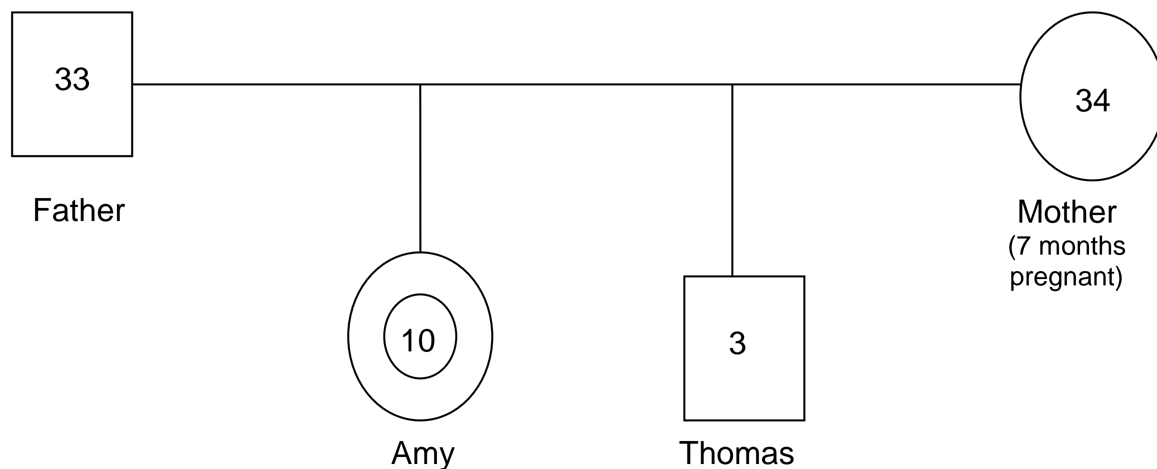
3.5.3 Setting

Holistic description and explanation is the focus of a case study. Yin (as cited in Merriam, 2002) notes that a situation in which it is not easy to separate the variables of the phenomenon from its context/setting is well suited to case study research. In this single case study, the phenomenon of a family system that included the relationship

between parent and child and attachment of the child diagnosed with ADHD was observed in the context of the broader systems in which it existed and functioned. The systems included the school she attended, their wider family, the church they attended and their circle of friends. The phenomenon could not possibly be understood in isolation from its context (Merriam, 2002).

The participants of this study were members of an Afrikaans family living in Stellenbosch, a town in the Boland, which forms part of the Western Cape. The family consisted of a 33-year-old father, a 34-year-old mother who was seven months pregnant, a ten-year-old daughter (diagnosed with ADHD) and a three-year-old brother (see Figure 3.1 for the genogram). The data were produced at the participants' home, and one observation was conducted at the daughter's school in a neighbouring town. Producing the majority of the data at the participants' home was convenient and allowed the researcher to use a variety of data-production techniques.

Figure 3.1: Genogram



The fact that the mother was pregnant at that time was considered as a possible intervening variable because her health and physical condition might have had an influence on her emotions and social relations. Having siblings was not a selection criterion, but the fact that the girl with ADHD had a younger brother and frequently interacted with him, enriched the data that were gathered. The mother had a demanding career and worked from 08:00 until 17:30 at an office in town. The father's work was also demanding and time consuming but more flexible because he regularly worked from home.

3.5.4 Data-production Techniques

According to Henning (2004), Johnson and Christensen (2008) and Mertens (2005), questionnaires, participant observation, workshops, interviews, information from artefacts and documents and focus group discussions, amongst others, are all data-production techniques in qualitative research. In order to produce data according to the research question, this study made use of three methods, namely child observation, semi-structured interviews and secondary data in the form of information from documents and artefacts. Child observation was the main method of data collection. Event sampling was the observation technique used for this study. A literature review formed an integral part of this study. It guided the questions that were asked during the semi-structured interviews, focused and enriched the observations and clarified the information from documents and artefacts. Therefore, a literature review is included in the final production of this research. The data collection techniques used in this study will be discussed in the following section.

- **The semi-structured interview**

An important part of data production in this study was two individual semi-structured interviews. According to Babbie and Mouton (2001), this type of interview is one of the most common qualitative methodologies of data production. Johnson and Christensen (2008) state that qualitative interviews provide qualitative data by means of open-ended questions. People are able to give information regarding their practices, actions or experiences to those who ask questions during the interview. Therefore, the interview is essentially an interpersonal encounter in the form of a conversation between the individuals who form part of the research (Babbie & Mouton, 2001; Johnson & Christensen, 2008).

Individual semi-structured interviews were conducted with the mother and the father. Interviews provide a valuable means of accessing the information that people have of their world and the way they experience it. Feelings, attitudes, thoughts, intentions, past events and events that preclude the presence of the researcher cannot be observed. Interviews are conducted to obtain information about these things that we cannot observe directly. The researcher is allowed to gain access to the person’s perspective during an interview (Merriam, 2002).

A semi-structured interview gives the researcher an opportunity to hear the participant talk about a specific aspect of his or her experience. The interview is driven by the research question, and the meaning of the answers produced by the person being interviewed will be the emphasis (Hatch, 2002). Johnson and Christensen (2008, p. 208) refer to this qualitative interview approach as the "interview guide approach". As mentioned earlier in this chapter, the research question and a literature review were employed to guide the interviewing. This type of interview allowed flexibility and adaptability as new data emerged. Important themes indicated in the literature guided and gave structure to the questions. There was flexibility in terms of the wording and the order of the questions (Hatch, 2002; Johnson & Christensen, 2008). This less structured approach prevented valuable emerging data from being overlooked and it allowed the researcher to access the participant's unique understanding of the phenomenon (Hatch, 2002).

In this study, open-ended questions were posed in order to allow the participants to share their unique experiences in their own words. Open-ended questions prevented the researcher from guiding their answers in certain directions (Hatch, 2002; Johnson & Christensen, 2008). Questions that were posed in this study could not be answered with a simple "yes" or "no" and expected detailed, descriptive answers that were rich in data. The interviews were conducted in Afrikaans because this was the first language of all the participants. I also ensured that the interviews could flow easily and that the language I used was free from jargon so that the meaning would be clear (see Addendum A).

In addition, the questions did not point the participants in directions that would favour my perspective or the outcomes of the data. The questions also reflected respect for the participants and my assumption that they were knowledgeable and that they were the experts on what we were discussing. Therefore, the questions were formulated in a way that invited the participants to teach me about their own experiences. The way in which the questions were formulated also showed the participants that I valued their insights and shared experiences. Finally, the questions were designed to produce answers related to my research question. According to Merriam (2002), good questioning lays the foundation for meaningful data. The interviews were recorded and subsequently

transcribed accurately to ensure that valuable data would not be wasted. Therefore, the information obtained from the interviews produced rich data that contributed to the data gathered during the observations.

- **Child Observation**

According to Johnson and Christensen (2008), qualitative observation entails taking detailed, broad field notes while observing all applicable phenomena, without exactly specifying in advance what is to be observed. Qualitative observations are done in natural settings, often for exploratory purposes. The researcher has to decide what needs to be observed; therefore, the researcher is the main data-production instrument (Johnson & Christensen, 2008).

We usually find two types of observation in qualitative research, namely simple observation where the researcher remains an outside observer and participant observation where the researcher is a member of the group he/she is studying (Babbie & Mouton, 2001). Johnson and Christensen (2008) also discern between observer and participant but break it down further along a continuum according to the type of interaction or role taken by the researcher. This study used the simple structured observation (see Addendum B) as a research tool and the researcher took on the role of "observer-as-participant" (Johnson & Christensen, 2008, p. 214). The participants were fully aware of the researcher's presence and that they were part of the research project. As the observer, I had limited and brief interactions with the participants, merely to arrange subsequent observation visits, which allowed me to remain objective and neutral (Johnson & Christensen, 2008).

According to Henning (2004), the researcher in a structured standardised observation does not get involved in any interaction and therefore remains an objective outsider. In these studies, more information is revealed through observation than acquired through interviews or artefacts. The role of the researcher is to enter participants' everyday life in order to explore issues that will reveal information-rich data that are relevant in answering the research question. A sense of real life actions as they are performed in real time is brought to the fore in this form of observation where the researcher is not involved (Henning, 2004).

We observe children for various reasons, amongst others to determine how they interact with adults and other children, how they deal with conflict and emotions and how they change their behaviour. Children have basic needs that have to be met. One of these primary needs is love in the form of security, unconditional love and care, attachment, guidelines for behaviour, consistent care and growing independence. By recording objective observations, one can learn how to become aware of these needs and how to meet those needs practically (Hobart & Frankel, 2004). As mentioned in section 1.8 of chapter 1, observation as a data-production technique was deemed appropriate for a study of this nature. The groundbreaking research on attachment between parent and child was based on observations.

With the emergence of Attachment Theory in 1948, observation was used as a method to study children's behaviour after being separated from their parents (Bretherton, 1992). James Robertson, with his impeccable training in naturalistic observation and more specifically his manner of note-taking and remarkable observational skills, assisted John Bowlby in that time. Robertson was trained at Anna Freud's Hampstead Clinic (Main, 1999). Mary Ainsworth, who worked with Bowlby in London as a research associate from 1950 to 1953, was impressed with Robertson's data and decided to imitate his methods of naturalistic observation. Ainsworth's original naturalistic home observations were the cornerstone for subsequent attachment research (Main, 1999).

Event sampling as an observation technique allows the observer to focus on particular events in order to build up a pattern of a child's behaviour over a period of days or weeks (*Observation Techniques*, 2004). In this study, event samples were a useful way to detect attachment behaviour and the display of emotion of a child with ADHD. The events that were focused on were rich in interactions between the parents and the child and focused on separation and re-union behaviour. Event samples helped clarify the emotions elicited when the child was separated from or re-united with her parent(s).

The observer compiled a detailed account of the participants' behaviour, non-verbal interaction, body language, verbal communication, tone of voice and affectionate contact among the participants. These field notes were very important to detect and log important information; therefore, they produced rich data in order to answer the research question. The researcher kept separate observation field notes for each

session to compare, interpret and analyse the data accurately. After every session, the field notes were written in detail and then stored for the purpose of data analysis at a later stage.

- **Literature Review**

Literature related to the selected area of this study was guided and formulated in the literature review (chapter 2). The literature is described, summarised and clarified in this review. The literature review determines a theoretical basis for the research and the nature of the research. Peripheral works should be considered critically, and irrelevant works should be ignored. A literature review goes beyond being a descriptive annotated bibliography and is more than a search for information. It serves as a bibliographical function for readers, indexing previous research on a given topic (Babbie & Mouton, 2001). The existing body of knowledge is studied intensively, and all sources included in the review must be read, evaluated and analysed. The identification and articulation of relationships between the literature sources and the field of research is very important. The literature review for my study provides a context for the research and it justifies the research (Babbie & Mouton, 2001).

A literature review is also done to enable the researcher to learn from previous theory on the topics and to show where the research fits into the existing body of knowledge. The literature review outlines gaps in previous research through illustrating how the subject has been studied previously. Finally, the literature review helps to refine, refocus or even change the topic, and it shows the way in which the study is contributing to existing understanding and knowledge of the field (Babbie & Mouton, 2001). For the purpose of credibility, the literature review formed part of the process of data triangulation, which will be elaborated on in section 3.5.6 of this chapter.

- **Information from Documents/Artefacts (Secondary Data)**

Documents and artefacts were used to confirm the diagnosis and to gather information from a multi-disciplinary point of view. As noted in section 1.8 of chapter 1, Johnson and Christensen (2008, p. 217) refer to data produced from documents or artefacts as "secondary" or "existing" data because the "researcher uses what is already there". Another person collected the information in documents and artefacts for a different purpose than the researcher’s purpose for using the data (Johnson & Christensen,

2008). In this study, paediatric reports served as proof of the diagnosis of ADHD. Scholastic achievement and progress were tracked by means of pre-school and primary school reports. Reports from previous multi-disciplinary support and intervention procedures (speech therapist, occupational therapist and physiotherapists) were available to monitor and to gather further information on the participant's general development.

3.5.5 Data Analysis

One of the purposes for doing research is to communicate findings to others. Data analysis is the systematic search for meaning, and the data is being processed to enable the researcher to communicate it to others (Hatch, 2002). According to Mouton (1998), the understanding of one's data and the identification of patterns and themes are the aim of analysis in research. In order to understand data, the researcher has to sort, sharpen, select, discard, focus and organise the data. After this complex process of analysis, conclusions can be drawn and data can be verified (Merriam, 2002; Mertens, 2005). Therefore, data analysis is the process of making meaning (Merriam, 2002). The ongoing process of qualitative research implies that the data analysis will also continue as more data continuously emerge, and it will be alternated with data collection repeatedly (Johnson & Christensen, 2008).

According to Miles and Huberman, as cited in Johnson and Christensen (2008, p. 531), this ongoing, cyclical process of data collection alternating with data analysis is known as "interim analysis". This process strengthens qualitative research, helps develop a deeper understanding of the research topic, enhances theories and tests generated assumptions and hypotheses (Johnson & Christensen, 2008). As soon as the researcher has reached a thorough understanding of the topic and is able to answer the research question, the process of data production is complete. To enable the researcher to fulfil the role as "detective" in investigating, examining and questioning the raw data, it is important to enter and store data in order for the processes of segmenting and coding to start (Johnson & Christensen, 2008, p. 531).

- **Content Analysis**

Merriam (2002) suggests that the content analysis method is appropriate for analysing data in this study. This method is appropriate because it is concerned with the content of the collected data. In this study, obvious and underlying messages in the data were analysed, which implies that the researcher's interpretation of the hidden meaning reflects the physical presence of both messages (Johnson & Christensen, 2008). A coding system made it easy to organise the data into themes sequentially and contextually (see Addendum E). The transcripts from the interviews (recorded and written notes) were coded and then divided into themes. The observations were focused and driven by themes, as informed by literature on Attachment Theory. Themes from the observations were compatible with themes coded from the interviews. This thickened the process of analysis.

I analysed the data from the interviews and observations by breaking them down into themes after coding the data. This process of theme identification is the core of qualitative data analysis (Barrit, 1986, as cited in Leedy, 2001). Different themes emerged as the analysis cycle continued and after a while, no new themes arose, but the existing themes thickened. This process of analysis took place throughout this study. It started during the literature review, during and after data production (reflecting), during discussions with the parents and child participation, during the transcription and the analysis thereof, during the presentation of the data and discussion of the findings.

3.5.6 Data Verification

Research has to be trustworthy in the field it is applied. The trustworthiness and dependability of the research have to be accounted for to make it reliable and authentic (Merriam, 2002).

- **Credibility**

It is important to capture and represent a participant's reality. There has to be correspondence between the way the researcher presents participants' reality and how participants perceive the social constructs of their reality (Mertens, 2005). Triangulation is one of the methods that Mertens (2005) and Babbie and Mouton (2001) suggest to ensure the internal validity of the study and to strengthen the credibility of the study.

- **Triangulation**

During the process of triangulation, several types of sources provided insight into the same relationships or events. The researcher is more confident with the results because the data and interpretation were viewed and cross-checked from different angles/viewpoints (Babbie & Mouton, 2001; Mertens, 2005). The definition of triangulation has recently been adjusted to signify any approach that combines two or more techniques in order to increase validity (Rothbauer, 2008). In this study, different sources were used, various questions were asked and multiple methods were used to produce and analyse the data. Triangulation involves checking information that has been collected from different sources or methods for consistency of evidence across sources (Mertens, 2005).

A number of data sources were used in this study to make the empirical data more objective and to derive experiential knowledge instead of personal preference or opinion from the data (Stake, 2005). Multiple methods of data collection were used, namely a literature review, semi-structured interviews, several observations and the study of documents as proof of diagnosis. The collected data were also interpreted and analysed by an objective external consultant (who was involved as supervisor at a later stage, as mentioned in chapter 1) for the purpose of validity.

- **Transferability**

The degree to which one can generalise the results to other situations determines the external validity or transferability of a study (Babbie & Mouton, 2001; Mertens, 2005). A detailed, unique description of a phenomenon rather than providing generalised findings was the aim of this qualitative study. Thick descriptions were provided to be able to judge the transferability of the study. Owing to purposive sampling, these descriptions were extensive and descriptive of time, culture and context (Babbie & Mouton, 2001; Mertens, 2005). Amongst others, specific information on human behaviour, interaction between parent and child and emotion regulation was obtained through a series of observations and semi-structured interviews.

- **Dependability**

Human behaviour is dynamic and subject to ongoing change over time; therefore, the laws of human behaviour cannot be isolated in qualitative research (Mertens, 2005). In a qualitative study, data need to be examined in order to see whether they are dependable and whether they make any sense (Mertens, 2005). Guba and Lincoln (as cited in Babbie and Mouton) refer to an "inquiry audit" when the documentation, incidents, the process of inquiry, data, findings, interpretations and recommendations are examined to determine whether the process was coherent and acceptable (Babbie & Mouton, 2001, p. 278). This process was combined with the confirmability audit of this study.

- **Confirmability**

"Confirmability means that the data and their interpretation are not fragments of the researcher's imagination" (Mertens, 2005, p. 257). Confirmability is the qualitative parallel to objectivity, which means that the influence of the researcher's judgement is minimised (Babbie & Mouton, 2001; Mertens, 2005). Mertens (2005) cited Yin when referring to confirmability as providing a "chain of evidence". Qualitative data can be traced to the source, and the synthesising and interpreting of the data should be clear. This process was conducted in combination with the dependability audit of this study (Babbie & Mouton, 2001; Mertens, 2005). In this study the observations and interviews were conducted by the researcher and an external consultant assisted with the interpretation of the data.

3.5.7 The Role of the Researcher

As mentioned in section 1.5 of chapter 1, my role as a researcher was to remain as neutral as possible. Patton (2002, p. 49) refers to this as "empathic neutrality". He further states that "the neutral investigator's commitment is to understand the world as it unfolds, to be true to complexities, multiple perspectives as they emerge and be balanced in reporting both confirmatory and disconfirmatory evidence with regard to any conclusion found" (Patton, 2002, p. 51).

Qualitative research is an interactive process that is shaped by the researcher's personal life experience being brought to the study (Denzin & Lincoln, 2005). This

personal life experience includes the personal history, gender, biography, race, ethnicity and social class of the researcher and of the people involved in the study. The researcher's life experience is combined with the reality and woven together with the aspects of another's life experience (Denzin & Lincoln, 2005). As researcher, I attempted to remain as neutral as possible in this study, especially because this was a single family's experience and their subjective understanding of the nature of their attachment relationship. Patton (2002, p. 49) refers to "empathic neutrality" as the "middle ground" to prevent the researcher from becoming too involved. If the researcher is not empathically neutral, judgement can be clouded or the researcher can remain too distant; consequently, understanding can be reduced.

I continuously reminded myself that my role was to observe, record, investigate and then discuss my findings, continuously keeping an open mind. All observation field notes and tape recordings were kept during the writing and finalising phases of the thesis, but all those documents were destroyed after submission of the thesis (as arranged and agreed with participants).

3.6 ETHICAL CONSIDERATIONS

Ethical dilemmas are likely to occur with regard to data collection and the dissemination of findings during qualitative research (Merriam, 2002). Therefore, it is necessary to take necessary precautions before starting the research. According to Johnson and Christensen (2008, p. 129), important ethical considerations are obtaining informed consent, assent and dissent with minors, passive versus active consent, deception, freedom to withdraw, confidentiality, anonymity and the concept of privacy.

The psychologist's ethical practice guidelines were the guiding principle for all actions during the research study. Before I commenced with the research, I had to apply for clearance from the Ethics Committee at Stellenbosch University. The purpose of the application was to ascertain whether any ethical risks of which the researcher should be aware were associated with the proposed research project or, alternatively, whether the ethical risks were of such a nature that the research could not continue. Ethical consent was given on 9 October 2008, and the researcher's reference number is 124/2008.

After receiving ethical clearance, written permission was required from the participants before the researcher accessed any personal records or information. The ten-year-old girl gave verbal assent to participate in the study. The participants were informed about the aim, the process and what would happen to the findings of the study. These facts and findings were reported truthfully to the participants, and they had access to all the information. The researcher considered the potential misinterpretation of findings. The participants were informed accurately about the nature of the study and they were informed about what exactly was expected of them. The informed consent also served as reminder for the researcher to remain aware of the potential harm of the research process, especially as the family interaction was investigated at a personal level within the family's intimate context.

3.7 SUMMARY

This chapter described the research design of the study. Aspects relevant to a qualitative study were discussed, e.g. the research methodology (which includes the method of sampling, methods of data collection and the method of analysis) and the research paradigm.

In concluding this chapter, the validity, reliability and ethical considerations for the study were discussed. The implementation of the study, together with the presentation, analysis and discussion of the data and findings, will be the focus of chapter four,

CHAPTER 4
PRESENTATION OF THE STUDY AND LITERATURE CONTROL

4.1 INTRODUCTION

In this chapter, the study is contextualised and the findings of this study are presented. A description of the participants is followed by the background to the study and a brief description of the procedures. The study is presented in the form of a case presentation, with the participants' background information and the data combined. The discussion and interpretation of the findings will be presented in chapter 5. For the purpose of privacy and confidentiality, pseudonyms were used in the following chapters.

4.2 THE PARTICIPANTS, SETTING AND PROCEDURE OF THE STUDY

As mentioned in chapters 1 and 3, the participants of this study were members of an Afrikaans-speaking family who live in Stellenbosch. The family consists of a father (33), a seven-month pregnant mother (34), a ten-year-old girl (Amy) and a three-year-old boy (Thomas) (see the genogram in section 3.5.3 of chapter 3). Their domestic worker will be referred to as the "'au pair", as the parents referred to her as such. This particular family was selected purposively for this study because they met the research selection criterion. The selection criterion was a family with one or more primary caregivers who have a child with ADHD. After gaining ethical consent for the study to proceed, the parents gave their written consent to participate in the study and the children gave verbal assent after the process had been explained to them.

A study of literature on topics related to this study (i.e. Attachment Theory and ADHD) enriched my knowledge in the field and helped to equip me in the process of data production. The literature review enabled me to recognise attachment behaviour, emotion regulation characteristics and ADHD characteristics. The opinion of one of the study leaders dedicated to this study who is an expert on Attachment Theory enhanced

the process further. Thereafter, the process of data production commenced. The interviews and observations were conducted at the family's home, apart from one observation that was done at school in a neighbouring town. The interviews and observations were completed within a month and then the process of data analysis started. The themes that arose from the data, which had been gathered from the literature review, interviews, observations and documents, were identified and then presented in the findings.

4.3 PRESENTATION OF THE FINDINGS

Figure 4.1 shows a diagram of the findings, which will be discussed in the following sections.

Abbreviation of themes included in the diagram (Figure 4.1):

- **ADHD Characteristics (ADHD)**
- **Emotion Regulation Characteristics (ER)**
- **Attachment Behaviour (AB):** This term describes behaviour in the relationship between parent and child, such as verbal and non-verbal interaction, affectionate contact, face-to-face interaction, approach behaviour and greeting behaviour.

Figure 4.1: Diagram of Findings

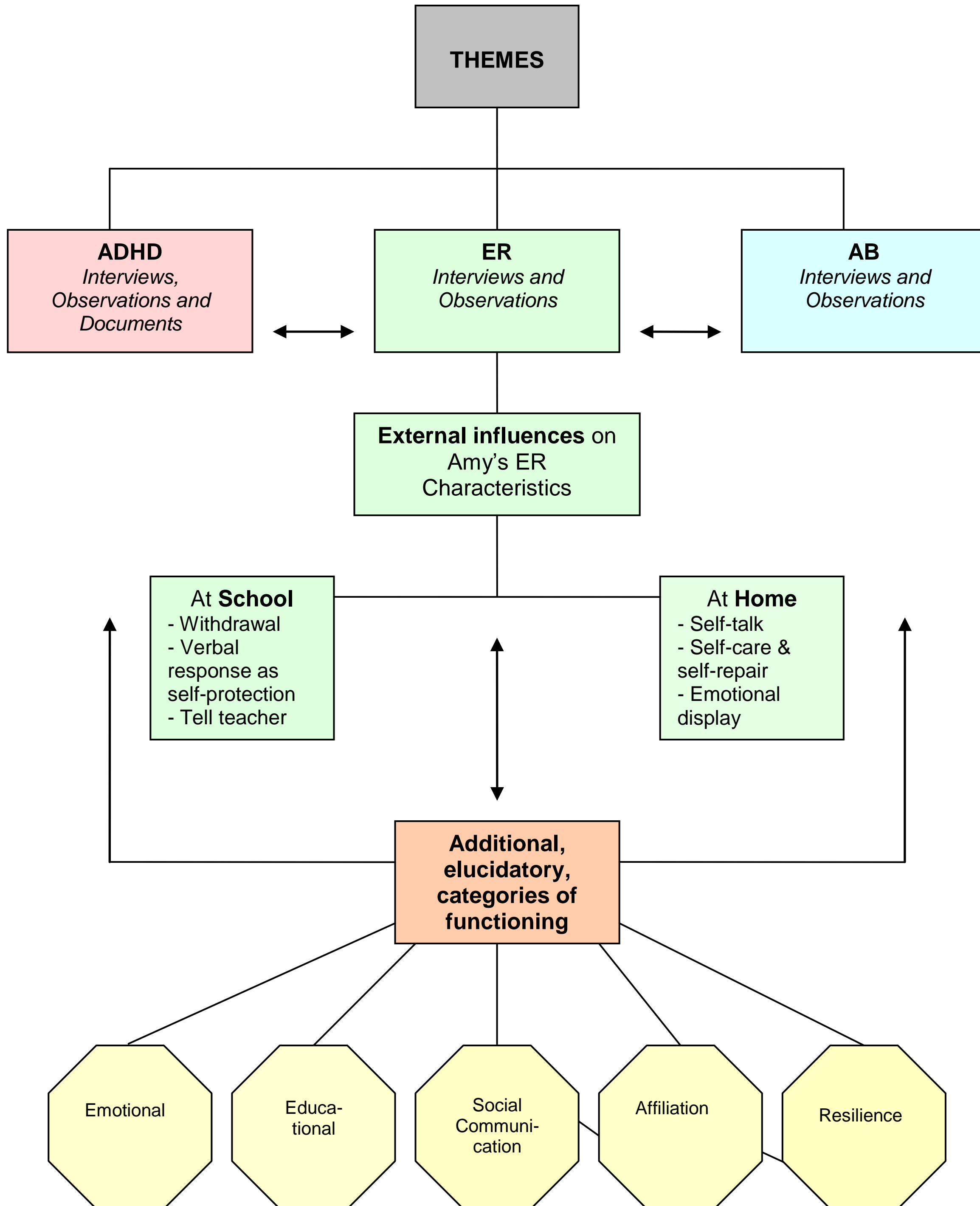


Table 4.1 tabulates the structure for the remainder of the case presentation in this chapter, with correlating data-production techniques.

Table 4.1: The presentation of the findings with correlating data-production techniques.

Presentation of the Findings	Data-production Techniques
4.3.1 Profile of child	Documents, interviews
4.3.2 Family background and developmental history	Interviews (Timeline)
4.3.3 THEMES: A. ADHD characteristics B. Emotion Regulation (ER) characteristics • External Influences • ER at home • ER at school C. Attachment Behaviour (Parent-child interaction)	Interviews and observations
4.3.4 Additional, elucidatory categories of functioning and associated needs: Predictable, consistent, "sameness" a) Educational b) Emotional c) Social communication (parents, sibling, peers etc.) d) Affiliation - Sibling interaction - Interaction between parent and child e) Resilience	Documents, interviews, observations

4.3.1 Profile of the Child

- Amy was diagnosed with attention deficit hyperactivity disorder (ADHD) when she was five years old.
- She was also diagnosed with developmental co-ordination disorder (co-morbid of ADHD) around the age of five, due to her low muscle tone and subsequent delay in all developmental motor milestones.
- Sensory integration disorder/dysfunction is another co-morbid disorder of ADHD with which Amy was diagnosed at the age of five.

As mentioned in chapters 1 and 3, this study focused on the emotion regulation characteristics of a girl diagnosed with ADHD. Because of the specific link between emotion regulation (according to Attachment Theory) and the difficulty that children with ADHD are assumed to have with emotion regulation, this study did not focus on her additional diagnoses (DCD and SID). The impact of these additional diagnoses on Amy’s emotion regulation characteristics, internal working model and self-esteem should, however, be considered as possible intervening variables on her emotional functioning.

4.3.2 Family Background and Developmental History

For the first few years of Amy's life, her mother experienced significant stressors. Her parents were not married at that stage, and Amy lived with her mother. However, there was regular contact between the parents because their relationship was still intact despite the fact that they did not live together. Amy's mother was working and studying during those years, which added to the pressure and demanded much of her time. When Amy was two years old, she and her mother moved from the Free State to the Western Cape. According to the mother, this was traumatic for Amy. She was very close to her paternal grandparents in the Free State, who were consistently involved during her infancy. Her maternal grandfather passed away when Amy was 8 years old, and her maternal grandmother was terminally ill for an extended period. According to her mother, Amy was frightened of her maternal grandmother who was so ill.

Amy developed severe separation anxiety after their move to the Western Cape, when she was two and a half years old. According to Amy's mother, she could not take a shower in the adjoining room without Amy sitting with her in the bathroom. Apparently, Amy also demanded to be taken everywhere her mother went. According to Amy's mother, the move was a significant adjustment for both Amy and herself, as there was no support network in place in the Western Cape. Amy's father moved closer when she was four years old, which allowed her to see him over weekends. Her parents got married when Amy was five years old, and this brought greater stability and security to her daily life.

Amy's parents mentioned that all Amy's developmental milestones were delayed, but because she was their first child, they did not experience it as problematic as they had no other child with whom to compare her development (see Comment 1 below). According to information gathered during the first interview, Amy's gross and fine motor development and language development were particularly delayed (e.g. she started sitting, crawling, standing and walking approximately 8 months after normal development and she started speaking in short sentences only after the age of three).

Since the age of four, Amy received occupational therapy for her difficulties with co-ordination. From the age of six, she received speech therapy for language and speech

development. According to her parents, Amy benefited from this support, but made little progress after an extended period of intervention. Therefore, they continued with activities such as horse riding and discontinued occupational therapy and speech therapy. Teachers and multidisciplinary professionals identified and noted Amy's difficulty with concentration and impulsivity since she was four years old. Consequently, she was diagnosed with ADHD at the age of five years. Currently, an au pair helps Amy with her homework, which subsequently does not involve her parents directly. Amy's parents regularly attend sessions hosted by the local ADHD Support Group, which, according to them, is useful. They specifically mentioned that they valued going there because of the support network that made them realise that they were not the only parents with a child who had difficulties.

Comment 1: This information was noted, as the parents are intelligent and involved, with access to books on child development and with friends and family with children.
Comment 2: Significant change, separation, adjustment and stress formed part of Amy's early history. These factors are known to affect the development of attachment relationships, with subsequent implications for emotion regulation and developing an internal working model (Goldberg, 2000).

4.3.3 Themes

A limited repertoire of themes was identified in the data. The themes were consistent and predictable in all areas of Amy's functioning. During the process of analysis, Amy's functioning was divided into categories, which will be discussed more fully in section 4.3.4. The overarching themes focus on Amy's ADHD characteristics, emotion regulation characteristics and attachment behaviour (see Table 4.2). These themes elicited the interface and interaction between attachment behaviour, emotion regulation and ADHD, which underlie the primary research question of this study.

Table 4.2: Amy's consistent emotion regulation characteristics in relation to her consistent ADHD characteristics and attachment behaviour.

ADHD Characteristics (A)	Emotion Regulation Characteristics (B)	Attachment Behaviour (Interaction between parent and child) (C)
Excessive talking ↔	Self-talk: non-stop ↔	Parents: Ignore or distract her by giving her an instruction
Exaggerated/heightened emotional display and expression ↔	Exaggerated/heightened emotional narratives ↔	Parents: Use humour or ignore her Amy: Non-approach behaviour
Constantly busy (at times incomplete activities) ↔	Consistently busy with activities related to self-soothing (physical and/or emotional) ↔	Parents: Ignore, humour or distract her by giving another instruction. Amy: Withdraws when in distress, self-soothes

A. ADHD CHARACTERISTICS

Three characteristics of ADHD were constantly present in Amy's daily functioning. First, she talked excessively, either in the form of self-talk or in the form of dialogue directed at people present. The second characteristic was a heightened (exaggerated) emotional display. This was apparent in her angry (almost aggressive) response, e.g. when her younger brother would touch or play with one of her dolls. Other examples of incidences when Amy exhibited heightened emotion were when she cried inconsolably when other people cried, or during a beautiful song, or during her narratives about animals being abused. The third characteristic was that Amy was constantly busy. Her activities were often incomplete and seemed to reflect an underlying desire for communication and connectedness; for example, she would frequently fetch toys, bangles and handbags from her room and describe how valuable and precious the items are, or she would frequently walk over to the piano and play some notes and then stroll around the room. It was as if she had "learnt" not to expect direct engagement with adults in childlike play and activities, but rather to engage in these on the periphery of adults, maybe with the hope that the adult would pick up the conversation.

Apart from the three most evident characteristics, other ADHD features were present in her daily functioning. It was clear that Amy found it hard to concentrate on and complete

tasks and to remain focused during activities at home and at school. During all observations, Amy used self-talk to help her follow all activities throughout. It was evident from information gathered during observations, interviews and documents from multi-disciplinary professionals that Amy was impulsive in her daily functioning. At first, the paediatrician prescribed Ritalin (10 mg), and eventually only Concerta (54 mg) was prescribed for daily use, which, according to her parents, helped her complete tasks promptly and efficiently. According to her parents, Amy regularly needed reminding to think before she acted, which is typical of children with ADHD (Barkley, 1997).

Her parents claimed that, because of her low muscle tone and difficulties with co-ordination, Amy did not appear to be physically hyperactive at all times. However, she was constantly on the go, either by talking excessively or by trying to engage people in her "play" or activity. Amy was also described as a dreamer who often forgot or lost things. She seemed to be absent-minded (daydreaming) during focused activities such as homework or activities in class. Amy’s behaviour corresponded with the literature (as discussed in section 2.3.4 of chapter 2), which points out that girls with ADHD are more prone to be disorganised and to exhibit inattentive symptoms such as forgetfulness, drowsiness and a tendency to daydream. Amy was generally obedient in following instructions from her parents and her au pair, but instructions often had to be repeated and Amy was checked on every time an instruction had been given. She followed instructions promptly, but she often took a long time to complete the activity or instruction. When asked why she took medication, she said that the tablets enabled her to do activities faster.

The observations revealed that her physical safety was ensured by adult supervision at all times and by having a set daily routine in place. Amy’s "ADHD needs" were addressed by an external structure. Amy had a structured daily routine to assist her in completing daily tasks and activities as efficiently as possible. The routine was monitored and observed to monitor her progress and functioning. All adults involved in Amy’s daily routine followed an instruction-based approach. She was reminded constantly about what she had been instructed to do, and she had to follow up on those instructions.

The behavioural manifestations of a child with ADHD may be improved by traditional treatment approaches (e.g. pharmacological treatment and psychosocial interventions). However, these approaches do not attempt to affect the child's internal working model or the parent's view of the child (Clarke et al., 2002). Erdman (1998) argues that children feel more victimised if they are focused on as the problem when feeling frustrated and anxious about the lack of parental bond.

B. EMOTION REGULATION CHARACTERISTICS

Emotion regulation played an enormous role in Amy's day-to-day life, whether she was busy with schoolwork, communicating and interacting with her teacher, brother, peers, parents, au-pair, or just playing at home. This section elaborates on the foundation, development and acquisition of Amy's emotion regulation skills. These skills develop since a very early age and because Amy was already ten years old, it was not possible in this particular study to observe her and her relationship with her parents during those crucial years during which self-regulation and emotion regulation skills in particular were developed. However, it was valuable to gain insight into her developmental background and family history during the interviews with her parents. The information gathered during these interviews was important in interpreting and explaining her current behaviour and emotion-regulating characteristics. The literature in section 2.2.3.3 of chapter 2 highlights the important contributing factors in developing emotion-regulating skills and helped me understand Amy's current display of emotion and characteristics of emotion regulation.

- **External Influences on Amy's Emotion Regulation Characteristics**
  - *Modelling, reinforcement and affective induction: Interaction between mother and infant*

As pointed out in sections 2.2.6 and 2.2.7 of chapter 2, an infant's emotional responses are shaped and organised in the context of face-to-face interaction between the mother and the infant. Owing to the selection criteria of this study, it was not possible to observe the mother-infant interaction, since Amy is already ten years old. However, in Amy's case, it was possible to observe face-to-face and other forms of interaction between mother and child. The nature of the face-to-face interaction between mother and child forms part of attachment behaviour and will be described in section 4.7. Diamond and Fagundes (2008, p. 92) affirms that the parent modulates a child's state of

affect and attention in aligning it with his/her own. This is done through changing facial expressions, activating behaviour and directing engagement with different features of the immediate environment.

- *Direct intervention strategies: Distress relief sequences*

Seeing that face-to-face interaction in an interactive context is especially important for only a limited period in the infant's first year, the influence of other processes relevant to emotion regulation is deemed more pervasive (Thompson, 1990). Throughout the early years of life, infants require external assistance in regulating positive and negative emotion. The quality of the caregiver's responsiveness and punctual and efficient interventions contribute to the development of an infant's social expectations (Thompson, 1990). With older children, a broader range of emotional experience (e.g. anger, frustration, disappointment, grief etc.) is regulated by adult intervention. A child's immediate emotional condition and emergent self-regulatory capacities are influenced by the meta-emotive messages conveyed by adults (Thompson, 1990).

Amy relied on her own strategies for emotion regulation when in distress, as reflected by her coping mechanisms: [withdrawal, self-talk when she was angry with her brother, for example when she expressed her discontent after her brother had taken her ball of wool (***Amy*****:** *"Ja, hy is nou kwaad vir sy suster want ek het die bal gevat. Ek steek dit nou weg; as hy dit kom vat gaan ek hom regtig slaan en harder as netnou. Ek is tien jaar oud en die ouer sussie." /* **Amy:** "Yes, now he is angry with his sister because I took the ball. I am hiding it now; if he comes and takes it, I will really hit him and harder than before. I am ten years old and the older sister.") and self-soothing, for example when she put cream on her wound after she had fallen down the stairs] when physically or emotionally hurt. It was clear that she did not approach adults or primary caregivers when upset or in distress. Instead of physically approaching adults in times of distress, Amy spoke loudly to herself, possibly in the hope of being heard and contained adequately. This was apparent in the way she exaggerated the cause of her distress (e.g. when the boy at school told Amy that he did not believe her to have a younger brother) and in the way she expressed her experience and anguish.

- *Affective contagion as emotional regulation: Affective attunement and social referencing*

Thompson (1990, p. 406) refers to Stern in describing the influence of a parent's direct interventions and social cues (e.g. mirroring the baby's actions), which can also be referred to as "intermodal resonance". Stern describes this as affective attunement (as elaborated in section 2.2.7 of chapter 2). A child needs to feel understood by his/her caregivers. In feeling understood, the child feels competent in her ability to converse her emotions. Being affectively attuned, the parents will contribute in making the child feel emotionally safe and contained in his/her direct environment. Therefore, the parents are aligned with the child's experience and display of emotion.

In the case of this family, humour is often used to ease and deal with heightened emotions and distressing circumstances. An example of such an occasion was when Amy fell down the stairs and her father told her mother that Amy had fallen down the stairs and that the stairs had broken. Another example was when she was busy self-soothing and talking to herself about her injury. Her father responded and told her to warn him if she was not going to survive, because then they could use her as meat while she was still fresh. (***Father***: *"Ai, Sussa, gaan jy dit darem maak? Jy moet betyds sê sodat ons jou kan gebruik vir braaivleis terwyl jy nog vars is." /* **Father:** "Oh, sis, are you going to make it? You must tell us in time so we can use you as BBQ meat while you are still fresh.") At times, this is done successfully, but the child does not necessarily acquire efficient long-term emotion regulation skills in the process. Humour does not allow her to make sense of her emotions; consequently, it hinders the development of reflective functioning. One of the implications for the development of reflective functioning includes the development of appropriate vocabulary that can give voice to one's feelings when one is in distress. For this to happen, the developing child has to rely on the responses of adults.

- *Control of opportunity*

"The frequency, regularity, persistence, and intensity of emotional arousing experiences depends to a great extent on care-giving conditions, which are shaped both by adults' active efforts to regulate children's emotional experience and also by the physical and social ecology" (Thompson, 1990, pp. 407-408). The care-giving conditions created by parents contribute to create opportunities for children to learn and experience to cope

with a variety of heightened emotion. Before children can be in charge of their own surroundings, the care-giving environment contributes to individual differences in emotional regulation in the early years (Thompson, 1990).

This links closely with the previous section on affective attunement and social referencing. As mentioned, humour and light-hearted approaches to stressful circumstances are used often to lighten the mood and ease Amy's heightened response to an environmental trigger. The question remains whether this approach and environment address Amy's inherent emotional experience and whether it efficiently teaches her to deal successfully with such triggers in future.

Amy often complained about physical scars (for example, she kept showing her previous and more recent scars to her brother and father, regardless of whether they had already seen and commented on them) and injuries, as she frequently stumbled and fell over. In one particular incident, she fell down the stairs outside their home. For the duration of my observation, which took place after the incident, Amy was pre-occupied with her scar and made attempts of self-soothing to help her regulate these distressing emotions. She was clearly shaken by the incident, but in an artificial, exaggerated, recognition-seeking way. In section 2.2.4.2 of chapter 2, it was stated that when an infant's signals are ignored, misinterpreted or defended against by the caregiver, the regulation of affect is left to behaviour devices to seek relief, as we can see in Amy's case (Fonagy et al., 2002). This constant attempt at being heard and her melodramatic response to the incident indicated that she had a need to be contained emotionally and understood compassionately. Amy's mother missed the incident due to being at work, but apparently, her father was present. As noted, I was not present at the time of the incident, but at the time I was observing, Amy's father was dealing with the incident in a light-hearted, humorous manner. There seemed to be a pattern of avoidance of painful experiences in the way humour was used to alleviate heightened emotions. Reflective functioning develops when painful experiences and emotions (which were clearly visible in the case of Amy) are interpreted accurately and addressed appropriately.

Her mother's response when she heard about the incident and saw Amy's forced smile was, *"Darem lag jy daaroor."* (**Mother: "**At least you are laughing about it.") When it was time for Amy and her brother to take a bath, Amy complained to her mother, as follows:

Amy: *"Ek wil nie gaan bad nie. Ek wil nie my knie natmaak nie..."*

(**Amy: "**I don't want to take a bath. I don't want my knee to get wet.")

Mother: *"Ag, Sussa, jy moet tog een of ander tyd hom natmaak. Of jy kan jou knie bo die water hou."*

(**Mother: "**Oh, Sis, it has to get wet some time or another. Or you can keep your knee above water.")

(Then Amy approached the bathroom, talking to herself about the procedure she would follow when taking a bath.)

Amy: *"Boetie beter nie my pleister natmaak nie, want dan gaan ek blou moord skree! OK, here I go!"* (Her mother did not respond to this statement).

(**Amy**: "Thomas better not wet my knee, because then I am going to scream like crazy! OK, here I go!")

- *Discourse about emotion*

> Once children begin to master basic language skills…children receive influential verbal messages from adults concerning the need for emotional regulation, the benefits of regulated emotion, strategies by which emotion may be regulated, the social rules governing emotional displays, and other information relevant to emotional understanding and the control of emotion (Thompson, 1990, p. 410).

The capacity of language for past and future reference (shared experiences), its explicitness and comprehensive character are influential forms of regulating emotion (Thompson, 1990). Through conversation and verbal communication with a child, parents can foster the regulation of emotion in various ways: First, through verbal commands and instructions; second, through the adult's management of information, especially when children face stressful circumstances; third, the parents can affect a child's regulation of emotion through suggesting clear regulatory strategies; and finally, language allows parents to use parental conversations to influence children's conceptions of emotion and its management.

The fact that Amy was often ignored by other children and therefore did not have age-related friends was a source of concern to her parents and a source of emotional upheaval for her. According to her parents, Amy was not aware of the fact that other

children chose not to play with her, until she turned six or seven years old. Since Amy started feeling alienated and rejected by her peers and subsequently voiced her sadness, her parents made a concerted effort to motivate her and teach her to ignore what children said or did, because what they did was mean and what they said about her was not true. Therefore, language played an important role in addressing heightened emotions in their household. The following are examples of the way in which Amy's parents use language in fostering emotion regulation:

- Humour:

Father: *"Ja, Sussa het by die trappe afgeval toe breek die trappe. Daar het net 'n klomp stene oorgebly."*

(**Father:** "Yes, sis fell down the stairs and then the stairs broke. Only a pile of bricks was left.")

Amy: "*Domkop! Is nie, ek het nié die trappe gebreek nie*!"

(**Amy: "**Silly! It's not true. I did not break the stairs!")

Father: *"Ai, Sussa, gaan jy dit darem maak? Jy moet betyds sê sodat ons jou kan gebruik vir braaivleis terwyl jy nog vars is."*

(**Father:** "Oh, sis, are you going to make it? You must tell us in time so we can use you as BBQ meat while you are still fresh.")

Amy: "*Is jy nou mal?*"

(**Amy:** "Are you crazy?")

- Suggesting strategies to deal with annoying/hurtful circumstances such as being teased by a boy at school:

Father: *"Jy moet hom net ignoreer. Hy doen dit omdat hy eintlik van jou hou."*

(**Father:** "You should just ignore him. He does that because he actually likes you.")

- *Beyond the family*

As the child grows older, various social ecologies apart from home influence the child. The achievement-oriented, social-comparison context of most school environments are of the most important contexts in which unique forms of regulating emotion develop. Teachers have an important role in developing these skills and shaping the processes in which children experience these emotions. In a school environment, children also

have the opportunity to learn from other children in observing them regulate emotion (Thompson, 1990).

Amy withdrew herself from all the other children and chose to spend playtime by herself. She seemed to have been in her own "dream world", staring at the other children. In class, the teacher's approach was based purely on instruction and was not focused on the content of interaction between the children. There is a school ethos of respecting each other and celebrating the differences among one another. However, it is difficult to maintain such an ethos consistently, especially with children who have low impulse control and difficulty with channelling heightened emotions.

- **A Summary of Amy's Emotion Regulation Characteristics <u>at Home</u>**

- Self-talk

Amy continually commented on her own actions, as though she tried to reassure herself about her way of coping/dealing with situations. The following example of self-talk was a few hours after her fall, just before bath time, at which stage Amy's father was in the kitchen within hearing and visual distance from her: ***Amy*****:** *"Eina! Dit brand! Die skrape voel grof. Vandag was nou regtig 'n slegte dag … Ouch! ... omdat ek geval het. Nou gaan dit beter voel ... met die handeroom ... Eina! Sjoe! Nou is daar nog 'n stukkende plek ... kyk daar! Nou het dit begin bloei van die room, maar die room maak dit eintlik net skoon.Dis handeroom vir die skrape. Ouch! Eina! Ek het al so baie geval ... amper myself gebreek. Ek kan nooit die trappe breek soos Pappa sê nie. Nee, my vaderland! Nou begin al my seerplekke bloei., en almal sien dit ook raak. Ek haat dit. Nou moet ek maar net met die pyn hier sit. Dalk moet ek op die bank gaan lê of iets. My broek is nie vuil nie, al het ek by die trappe afgerol ... Eina!"*

(**Amy:** "Ouch! It burns! The scratches feel coarse. Today was really a terrible day … Ouch! ... because I fell. Now it's going to feel better … with the hand cream … Ouch! Ouch! Now there's another sore place ... look there! Now it has started bleeding because of the cream, but actually, the cream just cleans it. It's hand cream for the scratches. Ouch! Ouch! I have fallen so many times … almost broke myself. I can never break the stairs like Dad says. No, my golly! Now all my sores are bleeding, and everyone can see it. I hate it. Now I have to sit here in this pain. Maybe I should go and

lie on the couch or something. My trousers aren't dirty, even though I rolled down the stairs. Ouch!")

Later on, during the same observation, Amy said the following when talking to herself: ***Amy*****:** *"Nee, my vaderland! Nou begin al my seerplekke bloei, en almal sien dit ook nog raak. Ek haat dit!"* (**Amy:** "No, my golly! Now all my sores are bleeding, and everyone can see it. I hate it!"). She tended to express her real feelings and thoughts about specific situations while she was on her own, talking to herself. However, Amy was always within hearing distance from her parent(s). This behaviour was characteristic of an insecure attachment style (Goldberg, 2000).

According to the content of her self-talk, it appeared that Amy tried to rationalise situations and convince herself that she was capable and able, especially when she felt insecure. Amy's perception and experience of situations were often very concrete. Examples are the following:

- ***Amy*****:** *"Ek is sterk, want ek ry perd en kan 'n perd lei."*
  (**Amy:** "I am strong because I can ride horses and I can lead a horse.")
- ***Amy*****:** *"Vandag gaan ek op die stadige perd ry. Ek is glad nie bang vir perde nie, al is my knie seer."*
  (**Amy: "**Today, I am going to ride the slow horse. I am not afraid of horses at all, even though I have a sore knee.")

- Attempts at self-care and self-repair

The previous example of Amy's narrative and self-talk about her injury and having to take a bath would be suitable as examples of an attempt at physical and emotional self-care. After a **physical injury,** Amy would make attempts at self-care, e.g. Amy put hand cream on a previous wound and on a different occasion, she put hand cream on recent scratches. She complained that it burnt, but said that the cream would heal the scars. Amy also attempted **emotional** self-care. When she was annoyed, angry, shy or ashamed, for example, she responded with a melodramatic narrative of the incident. Amy appeared to be very caring and sensitive about other people and animals, especially when they were hurt or sad. There was an incident when the horses of her school were stolen and abused, and she spoke on behalf of the animals and dramatised

how innocent they were. Amy's dialogue was not directed at any adult, but she sat at a distance from her parents. She said, for example, *"Al wat hulle hul lewe lank doen is om goed te wees vir kinders. Nou vat skurke hulle en maak hul seer."*
(**Amy:** "All they ever do in life is to be good to children. Now these crooks take and hurt them.")

- Public display of emotion

According to information gathered during the interviews, Amy responds melodramatically to other people's overt emotional cues and behaviour. Her parents described how sensitive Amy was to other people's feelings. She would start crying inconsolably when a stranger, acquaintance or family member was crying. According to her parents, she started crying during a beautiful song in church and she was not able to explain the reason for her crying so uncontrollably. Amy's parents mentioned that it happened frequently that she started crying so inconsolably. It is important to keep in mind that, according to research, children with ADHD find it hard to deal with and express their emotions verbally (Barkley, 1997).

- **A Summary of Amy's Emotion Regulating Characteristics <u>at School</u>:**

- Amy **withdrew** from other children during playtime. She kept her hand on the outside of her pocket for the duration of playtime (her play-phone was in her pocket). On the day of the observation, she did not interact with any child, but stared at the other children who were playing, talking and laughing.

- During the homework observation, Amy told the au pair that a boy at school had been mean to her. She said that she had verbally responded to him after he had been mean. This **verbal response** was a means of **self-protection**. According to the observation, Amy said, *"Hy sê dat ek nie 'n jonger boetie het nie. Toe sê ek vir hom dat as my boetie eendag groot is gaan hy hom kom foeter! Dan gaan hy sy les leer!"* (**Amy:** "He said that I did not have a younger brother. I told him that when my brother had grown up, he would come and hit him! Then he was going to learn his lesson!")

- During another observation, Amy said that she **had told the teacher** on that occasion that the particular boy had been mean to her.

C. ATTACHMENT BEHAVIOUR (Parent-child Interaction)

Bowlby distinguished the attachment relationship from attachment behaviours (Sroufe, 1996). The specific group of behaviours with respect to a caregiver and the special role of dyadic organisation for emotional regulation can be referred to as attachment. Sroufe (1996) states that there is no behaviour that is exclusively attachment behaviour, but that many behaviours can be used in service of attachment, such as smiling, vocalizing and even proximity seeking behaviour.

> The balance between attachment and exploration is as much a part of human survival as attachment itself, given the role of environmental mastery in human adaptation … infants specifically seek caregivers when they are threatened or otherwise in need of assistance for emotion regulation. It is not amount of proximity, but its organization with other behaviours and with context that defines the attachment relationship (Sroufe, 1996, pp. 175-176).

- **Face-to-face contact**

Upon greeting and reunion: Upon the arrival or departure of her parents, Amy was often pre-occupied with a current activity or trail of thought. Only on one occasion did Amy face her mother swiftly upon reunion. On other occasions, the particular parent would touch her face and direct her to look at them when greeting.

During general interaction: The nature of interaction between Amy and her parents was mostly based on instruction. Partly, this might be because Amy has ADHD and the parents were advised to repeat instructions and check repeatedly. When Amy was instructed to do something, she was generally extremely obedient and responded promptly without making eye contact with the parent who gave the instruction.

- **Verbal interaction**

As mentioned previously, the predominant content of interaction and parental approach (especially from her mother) was of instructional nature. By the time Amy's mother arrived home from work, it was bath and dinner time, which is an instruction-filled time of day in any household. Only on two occasions, the the mother asked Amy what her day had entailed and how she had experienced it. The majority of instructions were related to bath time, cleaning her room, checking if homework had been done and packing her school bag for the following day. There was an incident when Amy's father prompted her to tell her mother about her fall on the stairs outside their home. It was interesting to observe her younger brother's approach and proximity-seeking behaviour

when in distress. He used to run up to his mother as soon as the car entered the driveway to tell her about something that had happened.

As mentioned in previous sections, Amy talked excessively. Her dialogue was not always directed at any person in particular and was often related to her experience of situations or a step-by-step verbal account of what she was busy with (ongoing commentary on her actions). In general, Amy did not approach her parents to talk to them about her feelings or situations that had triggered her emotional experience. She chose to self-soothe and talk to herself, but she did that within hearing distance from her parents. According to literature on attachment behaviour, this behaviour was indicative of the avoidant attachment pattern (Goldberg, 2000).

Amy seemed eager to engage me in her conversations. She regularly tried to make eye contact and frequently looked in my direction. It appeared that Amy lacked boundaries when conversing with adults. According to information gathered during the process of data production, Amy would interrupt adult conversations or talk excessively to adults other than her parents, whether they were busy or not. During the homework observation, it was clear that Amy enjoyed talking to her au pair and that she responded to Amy. It looked as if Amy's need for being listened to was fulfilled during conversations with her au pair. According to literature and studies on attachment styles, children who are insecurely attached often approach and converse easier with adults other than their caregivers (Goldberg, 2000).

- **Affectionate contact**

Amy did not appear to seek affectionate physical contact from her parents while in distress. She soothed herself physically and emotionally after she had fallen down the stairs, and she practised self-talk after quarrels with her brother. During one of the observations, Amy approached her mother while her mother was on the phone, stood close to her and played with her mother's necklace. Apart from a kiss when greeting upon reunion and separation, the necklace scenario was the only other apparent affectionate physical contact between Amy and her mother.

- **Approach behaviour (greeting and following)**

According to all observations, Amy's parents approached her in order to greet. She was often so pre-occupied with an activity and seemed to be wrapped up in her thoughts; therefore, greeting her parent(s) appeared to interrupt her. Amy did not approach her parents when she was in distress or was dealing with feelings/emotions that evolved due to experiences of failure or rejection. During the observations, Amy' parents did not approach her when she was in distress over fighting with Thomas or while talking to herself about the boy who had been mean to her at school. She might have been approached in the time when I was not at their home. Again, it was interesting to observe her younger brother at the same time. He would always run up to the parent who had just arrived and hug and kiss him/her. Thomas would also run after them on their way to the car before they left. Undoubtedly, the two siblings regulated their emotions differently.

4.3.4 Additional Elucidatory Categories of Amy's Functioning and Associated Needs

Amy's functioning was consistent and predictable; in other words, there was similarity ("sameness") in her everyday behaviour and functioning. Amy's emotion regulation characteristics were consistent and predictable during the entire data-production process. These characteristics, together with Amy's ADHD characteristics and attachment behaviour (as shown in Figure 4.1) were constant and apparent in all aspects of her general functioning and relationship with her significant others. Table 4.3 represents Amy's categories of functioning and related needs for each category. Each category will be discussed in more detail.

Table 4.3: The participant's functioning, correlating needs and how they are currently met

Amy's Functioning **Predictable, consistent, "sameness"**	**Amy's Associated Needs**	**How Amy's Needs are Met**
(a) Educational - Special educational needs - Developmental delays - Developmental co-ordination disorder - Sensory integration disorder - Concrete in her thinking and reasoning	- 1:1 intervention at school & with homework	- Professional help was sought since an early stage (occupational therapy, physiotherapy, speech therapy etc.) Currently: - Private school: Small classes, BUT double medium - MP3 with headphones: Helps her focus and not become distracted - Au Pair: Helps her to complete her homework (not remedial intervention); child is uncontained
(b) Emotional - 'Immature' - Insecure (lacks courage to participate) - Anxious - Overt emotional behaviour without being able to verbally describe how she feels - No spontaneous approach when in distress: attempts at self-repair and self-care	- Support: Acknowledgement of and dealing with a variety of emotions appropriately - Effective emotional "coping skills" - Safety - Sensitive attuned care giving	- Humour - Light-hearted - Downplayed - Ignored at times
(c) Social Communication - Parents/adults: Lacks boundaries, intrusive, overbearing at times - Peers: Minimal age-related friends; relates with younger children; does not engage in activities - scared to dare; lacks courage - Content: "immature", not appropriate for her age	- Acceptance, alliance, recognition, approval - Friends - Acceptance, recognition - Consistent need for and strives for approval and acknowledgement	- Valued as older sister, "responsible" - Ignored by peers; teased by certain boys - Peers are irritated by her
(d) In Relationship with Others (Affiliation) - Sibling: Responsibility and authority over younger brother - Parents: Low on monitoring her emotional experience of situations	- Consistent need for connection, acceptance, approval & "quality time" - A need to be acknowledged and respected as the older sister.	- Love and protection

Amy's Functioning Predictable, consistent, "sameness"	Amy's Associated Needs	How Amy's Needs are Met
(e) Resilience - Authority: Over younger brother	-Has a need for age-related friends and to have authority in relationships with her peers	
- Belonging: A sense of belonging, comfort and safety in their home environment	- Apart from belonging in her family, Amy has a need to belong in friendships with peers	- A safe and loving home environment
- Competence: Has responsibilities at home, e.g. running a bath or reading to her younger brother, which makes her feel worthy and competent	- In the company of her younger brother, she compensates for the difficulties she has by consistently proving herself as competent and able. Her academic and social difficulties seemed to inhibit her from feeling competent in the company of peers.	- Parents give her responsibilities in and around the house, e.g. feeding the dog or running a bath.

a) Educational Functioning and Needs

Amy's developmental delays might have contributed to the fact that she experienced learning difficulties since pre-school. According to the Junior South African Individual Scales (JSAIS) administered in 2004, her global level of intellectual functioning was in the average range. She has not been assessed since 2004. The multidisciplinary professionals and teachers who worked with Amy recommended intense intervention strategies and support to help her cope academically and emotionally and to help her reach her full potential. Amy repeated Grade R and continued in mainstream education until Grade 3, when she struggled to cope academically and emotionally. Amy then started to attend her current school, which was a private school with a focus on children with learning difficulties and a specific focus on ADHD. She was in a double-medium, mixed-year class with 12 children. Amy had an MP3 player with headphones that she used to help her focus her attention on her schoolwork when the other children talked or distracted her.

Multidisciplinary professionals recommended that Amy should get personal support with her work at school and with her homework. She had difficulty concentrating on and finishing tasks and reaching the learning objectives. According to her parents and teachers, Amy benefited from personal support in following instructions, comprehending

concepts and completing tasks correctly. The au pair at Amy's home helped her with her homework after school. On the day of the observation, the support offered was not of a specialised (remedial) nature but based more on instruction in order to complete the homework promptly. According to multidisciplinary professionals, intense support was in fact essential for Amy to complete tasks sufficiently with understanding.

Since an early stage, professional help was sought for Amy's developmental delays. Her parents took her for occupational therapy (co-ordination), speech therapy (language development) and to a paediatrician (ADHD). As mentioned earlier, when considering Amy's developmental delays and subsequent learning difficulties in conjunction with the fact that she had ADHD, she would benefit from personal support. Amy found it hard to complete tasks and to concentrate, with the result that she often did not meet learning objectives. The literature in section 2.3.4 of chapter 2 indicates that girls with ADHD tend to have impairments in social and family functioning and impairments in school measures and lower achievement scores. To enable her to grasp concepts thoroughly and complete activities successfully, she needed special intervention. Therefore, Amy's parents arranged with their au pair to help her with her homework in the afternoons. Amy's mother checked her homework book in the evenings to ensure that all the activities were complete.

According to Amy's parents, she benefited from being in a private school for children with special educational needs, with a specific focus on ADHD. According to them, the safe environment at school protected her from further alienation and being rejected by peers in mainstream schools.

b) Emotional Functioning and Needs

According to Amy's parents and information gathered from reports by multidisciplinary professionals, Amy had a strong desire for friends of her age and a need to be accepted, included and approved by her peers. Since she was six years old, she complained about friends teasing her, for example by telling her that she was not able to do the schoolwork. It made her angry and had a negative impact on her self-esteem and self-concept. Amy's parents said that friends tended not to notice her, and in some cases, she annoyed them by the way she communicated. The next section will

elaborate on Amy's socialisation and communication skills and the impact they had on her interpersonal relationships and subsequent self-concept.

Higgins (1987), as cited in Barry, Lakey and Oherek (2007), proposes in his theory on self-discrepancy that emotional distress is the result of conflicting beliefs about the self. He refers to three domains of the self, namely the actual, ideal and ought selves and argues that conflicting beliefs can involve these three domains. The self can be interpreted from one's own point of view or from one's perception of the perspective of a significant other person. "Self-discrepancy seems especially relevant to attachment because, unlike self-esteem, self-discrepancy explicitly involves links between mental representations of self and others" (Barry et al., 2007). In a study by Mikulincer, as cited in Barry et al. (2007), it was found that there are considerably more discrepancies between actual-ideal and actual-ought selves of people who are insecurely attached than those who are securely attached.

There seemed to be a contradiction in Amy's perception of herself and her abilities in different environments. Her social environment and company seemed to play a vital role in her level of confidence. When she was in the company of her younger brother, for instance, Amy seemed more confident and constantly reassured herself verbally. However, when she was either with peers or adults she seemed less confident and more insecure about her abilities. Amy expressed these insecure, less confident statements in a self-talk context; therefore, they were not directed at a specific adult. The following are examples of such statements:

- ***Amy*: *"Ek pak dit nou in, ..al is ek skaam voor die seuns"*** (when packing her MP3 and headphones for school).
  (**Amy:** "I am packing it in now, despite the fact that I am shy in front of the boys.")
- ***Amy*: *"Ek kan nie 'n reguit lyn trek nie."***
  (**Amy:** "I cannot draw a straight line")
- ***Amy*: *"Ek is nie goed met somme nie."***
  (**Amy:** "I am not good at doing sums.")
- ***Amy*: *"Ek weet nie. Moenie my vra nie. Ek skryf min sinne. Juffrou skryf nooit goed in my huiswerkboek nie."***

(**Amy:** "I don't know. Don't ask me. I don't write many sentences. The teacher never writes things in my homework book.")

- ***Amy***: *"Nou gaan al die kinders my vra wat het ek met my knieë gedoen. Al wat dit is, is ek het een trap gemis!"*
  (**Amy:** "Now all the children are going to ask me what I have done to my knee. All it is, is that I simply missed one step! (Amy seemed self-conscious about the fact that she had fallen down the stairs and expressed her concern about going to school and facing the children).

Such statements are a sign of Amy's negative self-esteem and can be related to her social communication skills and the way she communicated and handled herself in the company of others.

c) Social Communication

It was clear from observations and information gathered during interviews that Amy had a continuous need for people's company and interaction. She came across as a girl who was constantly seeking recognition, acceptance and approval, even when not engaging with the people around her. For example, Amy would sit in the distance, talking to herself about a topic related to a current scenario, and frequently look to see if someone noticed her. On some occasions, Amy would physically place herself in the middle of an adult conversation and interrupt the dialogue, indicating low impulse control. During all observations and according to information gathered during interviews with her parents, Amy talked excessively and often needed to be prompted to stop, because she interrupted other people's conversations or her dialogue was often pointless. At times, her excessive talking was not directed at someone specific but was rather a case of self-talk, as adults tended not to respond to the monotonous topics of her conversation. The content of her self-talk or conversations with adults was not always appropriate to her age. For example, she would respond to her father's humour by saying, *"Domkop!"* ("Silly!") or *"is jy nou mal?"* ("Are you crazy?")

The content of Amy's speech, vocabulary, topics of discussion, expressive language ability and formulation of words did not seem to be at the level of a ten-year-old child. Her perceptions and interpretations of things were often concrete and at a level of a seven- to eight-year-old child. For example, when taking the dog for a walk, she would

say, *"Ek is sterk want ek ry perd en kan 'n perd lei. Die perd waarop ek ry is net 23 jaar oud en is soms stout, maar al wat ek dan doen is...*" (**Amy:** "I am strong because I can lead a horse. The horse that I ride on is 23 years old and naughty at times, but all I do then is…"). Then Amy would swing the dog's leash from side to side*.* On a different occasion, she contradicted herself when talking to herself about the horse riding that lay ahead. She said, *"Vandag gaan ek op die stadige perd ry. Ek is glad nie bang vir perde nie, al is my knie seer."* (**Amy: "**Today I am going to ride the slow horse. I am not afraid of horses, despite my sore knee."). As indicated in the latter dialogue, the content of Amy's speech was often concrete and aimed at boosting her confidence, competence and view of herself. This linked closely with Amy's emotion regulation after she had fallen down the stairs the previous week. It indicates her need for emotional containment that kept surfacing.

Amy's parents mentioned that she enjoyed interacting with younger children and babies. They said that Amy seemed to relate to younger children and appeared to be comfortable interacting on their level. Amy's interests and hobbies appeared to be better suited to younger children. It is as though she took on the role of the older, responsible child in the company of younger children, which made her feel worthy and competent. With reference to her emotional responses and behaviour in the company of children of varying ages, she tended to react "immaturely" to environmental triggers. For example, she would start crying while the three-year-old next to her coped with the situation without a need to cry. Older children tended to ignore her and became annoyed by her approach behaviour and verbal response to situations. According to interviews and information from reports, Amy was sensitive about being rejected by her peers and not having many friends her age, since she was approximately six years old.

As confirmed by Amy's social communication characteristics, she had a consistent need for social interaction, acknowledgement and acceptance. In their study, Barry et al. (2007, p. 346) point out that "high negative affect, low positive affect, low performance, social and appearance self-esteem and low perceived support" can be related to attachment anxiety and avoidance.

In their study, Barry et al. (2007, p. 346) found that "perceptions of social support were strongly positively related to positive affect as well as to performance, social and

appearance self-esteem … Perceived support was strongly negatively related to negative affect for specific bonds." It was further found in their study that attachment anxiety correlated with low perceived social support and that low perceived social support strongly correlated with attachment avoidance. With reference to the empirical link between attachment and support, their study suggests that low perceived social support and attachment avoidance may be the same construct. Amy's difficulties to connect socially with her peers and her lack of friends of her age group affected her social self-esteem and behaviour.

d) Functioning and Needs in Relationships (Affiliation)

- **Sibling interaction**

From observations and interviews, it was apparent that Amy strongly relied on the fact that she was seven years older than her brother. Apparently, it gave her a sense of authority over him, which made her feel valued. The following phrases, which were derived from various observations, indicate her wish for this need to be acknowledged, respected and valued by her significant others:

- ***Amy*: *"Ja, hy is nou kwaad vir sy suster want ek het die bal gevat. Ek steek dit nou weg. As hy dit kom vat, gaan ek hom regtig slaan en harder as netnou Ek is tien jaar oud en die ouer sussie."***

  (**Amy:** "Yes, now he is angry with his sister because I took the ball. I am hiding it now. If he is going to come and take it, I will really hit him, and harder than before. I am ten years old and the older sister.")
- ***Amy*: *"Ja, jou stouterd!"*** (when Thomas was told off by their parents).

  (**Amy:** "Yes, you naughty boy!")
- ***Amy*: *"Ag Thomas, hou op om altyd teen die stoel op te klouter."***

  (**Amy:** "Oh Thomas, stop clambering up the chair all the time.")
- ***Amy*: *"Thomas Jacobs, die tafel is nie 'n klimraam nie!"***

  (**Amy:** "Thomas Jacobs, the table is not a jungle gym!")
- ***Amy*: *O jinnetjie, kind..."***

  (**Amy:** "Oh my golly, child.")
- ***Amy*: *"Ja, ons het nou die kerk se houtlepel om vir Thomas te raps as hy stout is."***

  (**Amy:** "Yes, we now have the wooden spoon from the church to hit Thomas when he is naughty.")

In contrast with Amy momentarily boosting her own confidence and self-worth in the company of her younger brother, regression in age was often apparent in Amy's behaviour and response to him. The following is an example of an incident when her behaviour resembled that of a three-year-old:

***Amy**: "Dis nie Barbie-klere nie! Dis 'n Bratz pop!* (Amy looked irritated, faced me and then faced Thomas). *Dommie, haar naam is Bratz en dis dít. Jy gaan nié met haar speel nie. Jy mag met my Barbie-poppe speel, nie met dié een nie - sy is mýne, mýne, mýne!"*

(**Amy:** "It's not Barbie clothes! It's a Bratz doll! Silly, her name is Bratz and that is that. You are not going to play with her. You may play with my Barbie dolls, not with this one - she is mine, mine, mine!")

***Thomas:** "So what!"*

***Amy:** "Bly stil!"*

(**Amy:** "Shut up!")

***Thomas:** "So what!"*

***Amy:** "Bly stil!"*

(**Amy:** **"**Shut up!")

***Thomas:** "So what!""*

***Amy:** "Bly stil!"*

(**Amy:** **"**Shut up!")

***Thomas:** "So what!"*

***Amy:** "Bly stil!"*

(**Amy:** **"**Shut up!")

***Thomas:** " Ek gaan jou nou met my lepel deur die gesig klap!"*

(**Thomas:** "I'm now going to hit you in the face with my spoon!")

Then their father came and resolved the conflict. He separated them and reminded them that each of them had toys that the other was not allowed to play with. Their father then told Thomas to continue eating.

It was apparent that Amy had a need to be acknowledged and valued as the older sibling in her communication and interaction with her younger brother. Amy seemed to compete with Thomas, which indicated a sense of insecurity and intimidation on her side. A possible inherent fear of being "beaten" or "overtaken" by him was indicated by phrases such as "*Ek is die ouer sussie. / Ek is sterker en slimmer.*" (**Amy: "**I am the

older sister. / I am stronger and wiser."). She had a strong sense of ownership of toys and her belongings and protected them by having clear boundaries for her brother. This might be the only relationship over which she had authority because of their difference in age.

- **Parent-child interaction**

The parent-child interaction in this study was characterised mostly by instructions given. The fact that Amy had ADHD seemed to have an effect on the nature of the parent-child attachment relationship between parent and child. Establishing routine, structure and giving clear instructions are often among the guidelines for parents who have children with ADHD. This was apparent in the participants' household. As noted in the section on Amy's ADHD characteristics (section 4.3.3.A), Amy talked excessively during the observations. Excessive talking is a diagnostic criterion for ADHD, but can also be an indication of her seeking adult recognition, which points directly at the attachment relationship. It appeared that Amy was often "ignored" when she was talking endlessly. She never seemed to be upset about being ignored, but rather continued talking while withdrawing. This response behaviour was indicative of an avoidant attachment style (Goldberg, 2000). Humour and playful interaction (mainly from Amy's father) were frequently used to alleviate tension, any negative self-talk or conflict between the siblings.

Amy frequently addressed several "issues" during incidents of self-talk. Examples of such issues were problematic socialisation skills, for example friends (especially boys) who teased her, quarrels between Amy and her brother, academic difficulties and her experience thereof. These "issues" were often downplayed in a light-hearted fashion. This might have been the parents' preferred means of dealing with it to lighten the mood. One would wonder whether Amy is contained emotionally in her home environment.

Amy appeared to feel physically safe and protected in her home environment and in the company of her parents. There was a loving, accepting and warm atmosphere in the participants' home. Physical contact (i.e. greeting behaviour - hugging/kissing) upon reunion and separation was initiated by the parents. It hardly ever happened that Amy initiated physical contact (e.g. hugging her parents) (Goldberg, 2000). This behaviour

was characteristics of an avoidant attachment style. However, there were times when she would approach a parent and stand within close bodily contact to the parent. The close bodily contact hardly ever turned into a hug or affectionate physical contact from either side. When considering the parent-child interaction and relationship, it is important to consider the parents' attachment behaviour and their attachment relationships in order to explain their parenting styles.

On numerous occasions, Amy's mother mentioned that she had had difficulty in remaining patient with Amy through the years. She also claimed that Amy's father used a playful approach, which is more efficient in dealing with her difficulties. Amy's mother also said that she was stricter than Amy's father. During an interview, Amy's mother spoke about her relationship with her mother and the lack of a relationship. She described her mother as "*ontwykend*" (evasive), "*stug*" (reserved/stiff) and "*teruggetrokke*" (reserved/ uncommunicative). Amy's mother pointed out that her mother seemed much less evasive and reserved according to photos from her younger days. She stated that her experience of her mother was opposite to what the photos revealed. Studies on exploring the association between avoidance and the experience of parenting showed that people who have experienced more rejection and less sensitive care in childhood and adolescence, typically have tendencies of avoidance in their parenting styles (Belsky; Hazan & Shaver; Levy, Blatt & Shaver, as cited in Rholes, Simpson & Friedman, 2006).

According to Attachment Theory, the capacity to communicate and understand the feelings, desires and attitudes of the self develops in the context of sensitive and responsive care giving (Bowlby, 1969). Fonagy et al. (2002) associates the quality of an attachment relationship with reflective function in the parent and child. The ability and capacity to use mentalization or reflective functioning is acquired during the child's early care-giving relationship and is an important determinant of self-organisation and regulation of affect (Fonagy et al., 2002). The degree to which Amy withdrew from others and regulated her emotions when self-talking and self-soothing might indicate that there was a history of minimal mentalization (low in reflective functioning) in the parents and Amy. One would ask whether Amy's thoughts, feelings, subsequent actions and behaviour were understood, interpreted accurately and reflected back to her.

During interviews with the parents, the impression was given that Amy's happiness and well-being was of utmost importance to them. They stated that providing Amy with the necessary learning support, establishing a protective and structured home environment, sending her to a private school and allowing her to attend additional activities such as horse riding contributed to easing her daily functioning. According to them, Amy was a happy child. They said that Amy understood her diagnosis as having difficulty with completing tasks and therefore took medication to help her to work faster. According to them, she was not aware that she was in a "special" school for children with learning difficulties, and she did not perceive herself as different from other children. This was an indication of their low level of reflective functioning with regard to Amy and their perception of how she experienced and perceived it.

Developmental psychology refers to reflective functioning as a "theory of mind". Fonagy et al. (2002) cite various researchers when they describe reflective functioning as developmental attainment that permits children to respond to other people's behaviour. Reflective functioning also permits the child to respond the his/her perception of another person's beliefs, feelings, attitudes, desires, hopes, knowledge, imagination, pretence, deceit, intentions, plans and so on. Other people's behaviour is more predictable and significant when the child acquires reflective functioning.

Amy's verbal and non-verbal behaviour indicated that she had a need to be understood and contained. Her "withdrawal" when in distress might have been an indicator that she was yearning for acknowledgement and affiliation. Therefore, Amy might have been "suppressing" her need to be contained when withdrawing. Amy used physical and emotional self-regulation and self-talk as attempts at self-care. Therefore, she did not rely on adults for emotional containment or acknowledgement of feelings. There was an incident when Amy downplayed her emotional experience after she had fallen and got hurt. Her mother came home from work a few hours after the incident. The following happened, according to the observation field notes:

> Amy continued to play with her doll after swiftly greeting her mother with a kiss. She looked at her doll and said, *"Pappa het iets om vir mamma te vertel … ietsie simpel."* (**Amy:** "Daddy has something to tell you … something silly.") Amy pointed at the sore on her knee. In doing so, she avoided telling her mother directly and tried to involve her father in telling the *"simpel"* (silly) story.

Avoidant adults do provide care and support to others, but often it is given from a safe emotional distance. Numerous studies (Feeney & Collins; Simpson et al.; Wilson et al., as cited in Rholes et al., 2006) have shown that the distress of others make people who are avoidant uncomfortable; therefore, they fail to recognise others' distress or they fail to respond to it empathically. In this way, they are able to keep their attachment systems deactivated. Infants frequently signal their distress and are completely dependent on their caregivers. It is "expected" of parents to respond sensitively to these needs. The avoidant parent often has to deal with conflict between approach and avoidance. "Continually responding in a sensitive and caring manner will keep their own attachment systems unpleasantly activated, but failing to do so would be inconsistent with their new role as parents" (Rholes et al., 2006). On occasions, when Amy was distressed, the parents' approaches and responses indicated that, according to them, the cause of her distress was not important; therefore, they downplayed the situation.

People who are securely attached trust and expect that their attachment figures are comfortable with intimacy and independence. They also rely on their attachment figures to be available and helpful in times of distress (Barry et al., 2007). People who are insecurely attached show more attachment anxiety or attachment avoidance, which indicates uneasiness with intimacy (Barry et al., 2007). This might explain Amy's regular withdrawal and subsequent self-soothing as attempts at self-care.

e) Amy's Resilience

A - Authority:

Amy seemed to make an effort to gain authority over her younger brother. These efforts were often forced and inappropriate. For example, she would exclaim how she was older than he and deserved to be acknowledged and respected, which in fact reflected her immaturity. Her parents assigned certain responsibilities to her, because she was the older sibling. It was apparent that this made her feel worthy.

B - Belonging

There was a definite atmosphere of belonging, love and safety in their home environment. It appeared to be the only place where Amy felt she really belonged. Her lack of social competence and confidence limited her in finding a sense of belonging amongst older children and in settings outside her protected home environment.

C - Competence

Because Amy was the older sibling, her parents made a concerted effort to give her a sense of authority over the younger brother in assigning certain roles and advantages to her. These tasks and responsibilities seemed to benefit her competence. Amy valued the trust her parents would place in her to accomplish certain tasks (e.g. running a bath for her and her brother or putting an equal number of toilet rolls in each bathroom). However, she appeared to lack feelings of competence related to schoolwork and social situations with peers.

4.4 A CRITICAL REFLECTION ON THE FINDINGS

The consistent and predictable display of emotion regulation characteristics in conjunction with Amy's ADHD characteristics and the nature of the interaction between parent and child simplified the interpretation process. Regardless of the limited array of characteristics, there was "sameness" in Amy and her parents' behaviour, which confirmed and validated the findings. In order to answer the research questions of this study, the findings will be discussed and interpreted in chapter 5.

4.5 CONCLUSION

This chapter provided a detailed description of the implementation and findings of this study. The data gathered during interviews, observations and information from documents were interpreted, combined and then presented in the form of a case discussion. A summary of the study, discussion and interpretation of the findings, limitations of the study, recommendations and conclusion will be addressed in Chapter 5.

CHAPTER 5
DISCUSSION OF FINDINGS, LIMITATIONS, RECOMMENDATIONS AND REFLECTIONS

5.1 INTRODUCTION

This chapter will focus mainly on answering the research questions. The discussion of the findings and interpretation of data produced during interviews and observations will be used to answer these questions. A summary of previous chapters will be followed by the interpretation of the findings. The chapter will conclude with sections on the limitations of the study, further recommendations and a final reflection.

5.2 SUMMARY OF CHAPTERS 1, 2, 3 AND 4

A close link exists between the concepts in Attachment Theory and emotion regulation. The role the relationship between parent and child plays in development of emotion regulation skills is eminent. Research and subsequent literature assume and suggest that children with ADHD have significant difficulty with emotion regulation. As stated in chapter 1, the aim of this study was to apply Attachment Theory to explore the emotion regulation characteristics of a child with ADHD. The relationship between parent and child was deemed important to identify the child's emotion regulation characteristics during a series of observations and interviews.

Chapter 2 served as a research map and was an evaluative report of information related to the selected area of study found in the literature. The literature review produced relevant theory related to Attachment Theory and ADHD. To a great extent, Attachment Theory reflects research on emotion regulation, and it is well known that children with ADHD have difficulties with emotion regulation. The research design and research methodology were the focus of chapter 3. A single qualitative case study was chosen as an appropriate method for this study. The data were produced through a literature

review, semi-structured interviews, a series of observations and documents (reports from multidisciplinary professionals). The process of analysis commenced as soon as the literature review started and continued during the process of data production. Themes informed by the literature review on Attachment Theory and ADHD and themes that emerged from interviews and observations were compatible and merged during the final process of analysis. The findings were reported in the form of a case discussion in Chapter 4. The following section will discuss and interpret the findings by answering the research questions stated in chapters 1 and 3.

5.3 RESEARCH QUESTIONS

5.3.1 Primary Question

- **What are the emotion regulation characteristics of a child diagnosed with ADHD, using Attachment Theory as perspective?**

As stated in section 4.3.2 of chapter 4, significant change, separation, adjustment and stress formed part of Amy's early history, and these factors are known to affect the development of attachment relationships, with subsequent implications for emotion regulation development. Bowlby (1969) affirmed that the infant's expectations of his/her parent's behaviour and the infant's sense of self and others (internal working model) influence the development of the child's emotion-regulating characteristics. In Amy's case, this process was also influenced by intervening variables, such as her mother being the primary caregiver, their not living with Amy's father, her mother who had to work and study at the same time and she and her mother moving away from significant others when Amy was two years old. Only at the age of five, after her father and mother had got married and moved into the same house, there was more stability in terms of family life.

There were delays in Amy's language and speech development and her motor co-ordination. As stated in section 4.3.5 of chapter 4, Amy was diagnosed with ADHD at the age of five. The purpose of this study was to apply Attachment Theory in exploring the emotion regulation characteristics of a child with ADHD. When considering Amy's profile as a child diagnosed with ADHD and the accompanying diagnoses of developmental co-ordination disorder and sensory integration disorder, one might ask how they influence and affect each other. One would also ask how such a profile would

have affected her attachment relationships and emotion-regulating characteristics. As mentioned in chapters 1, 2 and 4, this study focused on emotion regulation characteristics of a girl diagnosed with ADHD, using Attachment Theory as perspective; therefore, the study did not focus on her additional diagnoses.

- **Non-approach behaviour and attempts at self-care when in distress**

There was a defined sense of belonging in the family environment. Amy seemed to be at ease and comfortable in the company of her parents and younger brother. However, there was a clear indication that Amy withdrew into her dream world regularly. This happened regularly when she was in distress. Amy did not approach her parents when she was upset, hurt or excited. On these occasions, Amy would attempt to self-soothe and take care of herself, constantly talking herself through these emotionally turbulent situations. As mentioned in chapter 1, Barkley (1997) conceptualise ADHD as a disorder of self-regulation, which means that children with ADHD have difficulty regulating their emotions and that they need adult support to do this efficiently. Parents affect a child's internal working model through their behaviour and responses to the child's display of emotions. In doing so, the child perceives the parent's view of him or her and either develops a sense of competence in conveying his/her feelings accurately, or the child feels incompetent in addressing heightened emotions. Children who are insecurely attached seem to have internal models of parents being unresponsive to their needs; therefore, they withdraw when in distress (Clarke et al., 2002).

Because of Amy's learning difficulties and diagnosis of ADHD, the parents established structure and routine in their home environment. Amy seemed to benefit from the structure because she appeared to feel safe in a predictable environment. This valid need for structure might have been prioritised over a need for emotional containment. The humour and light-hearted approach during distressing circumstances were used with good intent, but probably denied Amy the opportunity to feel understood by her caregivers. A history of not being understood will add to her insecurity because she felt unable to understand or converse her feelings accurately. Bowlby (1969, 1982) proposes that the context of sensitive and responsive care giving is responsible for developing the capacity to communicate and understand the feelings, desires and attitudes of the self. One would ask whether Amy's primary diagnosis of ADHD was

accurate and whether an attachment deficit would not be more appropriate in explaining her behaviour. This question links with a study by Ladnier and Massanari (2000) on ADHD, which should be treated as attachment deficit/hyperactivity disorder.

- **Excessive talking**

As pointed out in chapters 2 and 4, one of the criteria for ADHD is excessive talking. It is well known that children with ADHD practise self-talk to help them complete tasks and to regulate emotion (Barkley, 1997). It is clear from literature on ADHD that self-talk is a positive attribute in achieving one's goal (Barkley, 1997). Literature on attachment behaviour indicates that withdrawal and self-talk (each time when in distress), can indicate an avoidant attachment style (Goldberg, 2000). Amy talked excessively, both directed at people and in the form of self-talk. The majority of the content of Amy's self-talk was related to the expression of emotion and her experiences of situations that triggered her emotions. Amy's emotional display was often activated easily and expressed in a dramatised way. Her narratives were often exaggerated. Amy's emotional display and response to situations appeared to be immature in the sense that her emotional development seemed to be delayed. Children with ADHD are found to have difficulty in expressing their emotions (Barkley, 1997). Amy did not particularly seem to have difficulty to express her emotions, but the manner in which she expressed them was apparent. The way in which she expressed her emotions with such intensity might be an indication that Amy had a need to be heard and understood accurately and for her parents to treat her accordingly. The latter hypothesis points at the attachment relationship, which is primarily responsible for the regulation and containment of emotion.

5.3.2 Secondary Questions

- **What is the nature of self-regulation in the child who is diagnosed with ADHD?**

Amy withdrew herself regularly and did not rely on support when she was in distress. This behaviour is representative of children who are insecurely attached and who have an avoidant attachment style (Goldberg, 2000). Amy regulated her emotions and subsequent behaviour by constantly talking to herself. The content of her self-talk was concrete and often aimed at drawing recognition. It was clear that Amy had a need to be

contained emotionally and wanted compassionate understanding and empathy from her parents. It is assumed that, after a history of her emotions being downplayed and avoided, Amy started to rely on withdrawal and constant self-talk in an attempt to regulate her distressing emotions.

Amy attempted self-soothing after physical injury or after incidents that caused her emotional distress. As mentioned in the previous section, Amy's attempts at self-soothing and her content of self-talk in those situations were often dramatised and exaggerated. This characteristic was in line with research on the emotion regulation characteristics of children with ADHD (Barkley, 1997). In Amy's behaviour and characteristics of self-regulation was a definite interplay between the self-regulation characteristics of children with ADHD and the characteristics of children who are in a situation of insecure and avoidant attachment .

- **How are emotions and feelings among family members recognised and reflected?**

Humour and light-hearted approaches were often used in response to Amy's intense emotional displays and her attempts to soothe herself. At times, Amy's emotional responses and constant verbal accounts of her experiences were ignored. In Amy's case, her parents often avoided her feelings and emotions, despite the fact that she expressed her emotions through her behaviour and constant self-talk. It was different with her younger brother, who approached his parents immediately when he was in distress. They responded to his display of emotion and comforted him promptly and accurately. The difference between Amy's and her brother's characteristics of emotion regulation can be caused and explained by a variety of factors, amongst others attachment history and developmental history. Because this study focused on Amy's emotional functioning and self-regulation, her brother's emotional functioning was merely noted to highlight her unique attachment behaviour. Their home seemed to be a caring and physically protective environment. The father regularly played with the children and made an effort and time to interact with them. This probably contributed to the children's spontaneous behaviour at home.

- **Are the parents able to reflect on their own emotions?**

The parents mentioned that their primary concern was Amy's emotional and social well-being. They did not talk about their personal emotions and feelings with regard to her condition. They seemed more aware and worried about other children alienating Amy and avoiding to play with her. According to them, Amy did not appear to have any emotional difficulties resulting from her diagnosis, subsequent developmental delays and social difficulties. Their primary concern was that she had to be happy, which she was, according to them. The impression was created that the parents' personal emotions and feelings with regard to Amy were avoided and therefore not acknowledged. Not once in all the observations did the parents address or utter their feelings and emotions, which is characteristic of an avoidant attachment style (Goldberg, 2000).

- **How does the diagnosis of ADHD affect the parents' reflective functioning towards the child who is diagnosed?**

The basic premise of reflective functioning is that a parent must have the child's mind in his or her mind (Fonagy et al., 2002; Goldberg, 2000; Slade, 1999). As indicated in section 2.2.3.3 of chapter 2, parents are primarily responsible for a child's emotional well-being. Being sensitised and focused on the child's subjective emotional experience of situations automatically allows the parents to have the child's mind in their mind. Since 2003, Amy's parents made significant effort to have an external structure in place to support her with her developmental delays and subsequent learning difficulties. For example, they sent her for occupational therapy and speech therapy, selected a private school for her to attend and arranged a set routine and structure at home. One would ask whether such an external structure is sufficient in providing Amy with emotional security. According to the findings, it seemed that the parents were denying Amy's emotional experience of situations. Their humorous and light-hearted approach to Amy's emotional display (e.g. when she was in distress) was with good intent, but appeared to be "insensitive" and inaccurate at times. The parents seemed to be concerned about their children's well-being and they were approachable, which indicated that they would be able to make an effort to have Amy's mind in their mind in her day-to-day life. Therefore, the parents need to be sensitised and supported in shifting their perception of her emotional experiences. This could indicate that they were

struggling to come to terms with Amy’s difficulties, and in this sense were "avoiding" their own feelings in this regard.

“Resolution is thought to foster acceptance of the child and to promote care giving that is matched to the child’s unique characteristics” (Oppenheim, Dolev, Koren-Karie, Sher-Censor, Yirmiya & Salomon, 2007, pp. 109-110). Children have a greater sense of being secure, understood and accepted when parents are resolved with respect to the diagnosis, but a lack thereof can cause the parents to behave and respond to the child’s needs in an incongruent way (Oppenheim et al., 2007). In Amy's case, the parents initially reacted in a diminished, downplayed way to the diagnosis. They appeared to be affectively detached from the emotional significance of the diagnosis. This was indicated by the way in which they simply "accepted" Amy’s developmental delays and subsequent learning difficulties. They stated that they followed instructions from multidisciplinary professionals and simply dealt with her condition on a day-to-day basis. This was also apparent in the way they responded to Amy’s behaviour and especially her emotional response to situational triggers, for example when she fell down the stairs, when she said that she was embarrassed about her hearing aid and her heightened emotions in response to the boy at school who teased her. Their downplaying, humorous responses did not seem to meet her emotional needs accurately.

Amy’s profile is complex in the sense that it is not purely an ADHD diagnosis. Various intervening variables could affect one another, e.g. low muscle tone, sensory deficits, learning difficulties and attachment insecurities. Amy’s parents appeared to deal with her diagnosis mainly in terms of ADHD. Their responses and planning seemed to rely largely on what books and ADHD support groups suggested. One would ask whether the full range of her profile was acknowledged and accepted, and whether the parents were resolved with respect to Amy’s more "complex" profile.

- **Does the child with the diagnoses of ADHD claim specifically more time from the parents than the other children?**

It did not seem to be the case at the time. After Amy was diagnosed in 2003, her parents made a significant effort to support her by sending her for occupational therapy, speech therapy and to a paediatrician. After a few years, Amy's parents stopped

sending her for occupational and speech therapy, as little progress was made. Seeing that her parents had an external structure in place to simplify Amy's daily functioning and routine (e.g. an au pair to assist Amy with her homework), little involvement is necessary on their behalf. Amy's parents (father or mother) checked her homework in the evenings and helped her to organise her school bag for the next day. The family seemed to spend time together over dinner and then it was time for the children to bath and go to bed. Seeing that Amy regularly withdrew herself and constantly kept herself busy, for example with her dolls, it seemed that there was more interaction between the parents and her younger brother.

The interpretive/constructivist paradigm has created the opportunity in this study to understand and subjectively interpret the emotion regulation characteristics of a ten-year-old girl diagnosed with ADHD through the lens of Attachment Theory. It also facilitates the subjective understanding of the nature of self-regulation in this child and the way in which emotions and feelings among family members are recognised and reflected.

5.4 OBSERVING AN INSECURE CHILD

Amy's emotion-regulating characteristics, non-verbal behaviour and verbal expressions indicated that she was significantly insecure in her general functioning. Amy's insecurity was an overarching, prominent theme during the process of data analysis.

- In her general **behaviour**, Amy consistently attempted to be acknowledged, accepted and valued by others. Her content of self-talk, activities (e.g. bringing toys from her room to show to people present) and the nature of her interaction with her younger brother indicated her sense of insecurity.
- Her **emotional display** and **reaction** to environmental triggers were heightened. She was sensitive in the sense that she cried easily, got very angry (to the extent of being aggressive) and she was discouraged easily when things did not happen as she expected. These were indicators that she was not emotionally contained.
- At times, especially in the company of her younger brother, it seemed as though Amy was denying her **educational** difficulties. At other times, Amy would express her feelings of incompetence briefly, but in general, she painted a picture of being

able to cope academically. The picture she painted was not true to reality because her academic performance was below average (as indicated in her school reports).

- As mentioned in chapter 4, Amy relied on the fact that she was older than her younger brother in order to feel valued and respected. In her **relationship with her brother**, Amy continually tried to prove that she was competent and able. In fact, the way in which she attempted to gain respect was probably a reflection of her insecurity and emotional immaturity.

5.5 LINKING ATTACHMENT THEORY AND ADHD

The assumption that the relationship between parent and child and environmental factors contribute to the aetiology and features of ADHD seems to be plausible, according to this study. The emotion regulation characteristics that Amy exhibited were intertwined with her ADHD characteristics. Her attachment relationships seemed to be insecure, but it was not possible to determine whether her insecurity and insecure attachment were the cause or main contributing factor to her diagnosis of ADHD and vice versa. When reflecting on this study, one might question Amy's diagnosis of ADHD because various emotion regulation characteristics indicated an attachment deficit. The interaction between parent and child and the attachment relationship play a vital role in the self-concept, experience and display of emotion, responses to environmental triggers and general capacity to self-regulate, especially in children diagnosed with ADHD.

5.6 LIMITATIONS OF THE STUDY

5.6.1 Attachment Theory was an unfamiliar field to me when I commenced with the study. Therefore, I first had to learn about the theory in order to apply it accurately.

5.6.2 Amy's special educational needs profile complicated the study, as she did not have a pure ADHD diagnosis. It should be taken into account that scholastic difficulties can result in difficulties with concentration.

5.6.3 For this reason, a psycho-educational evaluation would have been valuable to gain a holistic picture of Amy's educational, intellectual and emotional functioning and well-being.

5.6.4 This was the first time I did child observations. Although I did a considerable amount of reading beforehand, experience in the field is important to sharpen one's skills when observing.

5.6.5 The participants were aware of my presence as observer, which might have had an influence on their behaviour.

5.6.6 Because of time constraints, only one observation was done at Amy's school.

5.6.7 It might have been valuable to administer the Adult Attachment Interview to determine and gain insight into the parents' attachment relationships and attachment history. One has to be qualified to administer this instrument.

5.6.8 By the time I commenced with the study, Amy was already ten years old and her attachment style has already been formed. I was not able to observe her interaction with her parents when she was an infant.

5.7 RECOMMENDATIONS

5.7.1 Future Research

- **More research** needs to be done on the **relationship between Attachment Theory and ADHD**. Families will benefit largely from knowledge in this field. Awareness of and knowledge about the rationale of this theory might have a lifelong effect on people's emotional development, social and emotional well-being as well as current and future relationships.
- The **lay media** would also benefit from knowledge and an awareness of Attachment Theory because it is intertwined with and applicable to all relationships.
- **Bigger samples** can be included in future studies to investigate a wider array of attachment bonds and histories in families.
- Administering the **Adult Attachment Interview** would shed light on parents' attachment history and might explain their current parenting styles to some extent.

5.7.2 In General

- Attachment Theory should be introduced specifically during **workshops** for **parents, teachers and psychologists** who have or work with children who have ADHD.
- There are a variety of **ADHD Support Groups** in South Africa. Parents who have children with ADHD will benefit from the principles of Attachment Theory and family

attachment therapy. Experts in the field of Attachment Theory and attachment research should be approached to address parents, teachers and psychologists who attend these support groups.

- **All parents** should be informed about Attachment Theory during parenting **workshops**. It will be beneficial for their parenting style.
- Attachment Theory should be included in the **National Life Orientation Curriculum** in schools, so that children can gain a better understanding of the dynamics behind emotion, particularly their behaviour and experience of relationships with friends, significant others and their family members.
- **Family attachment therapy** for families with children who have ADHD. See Ladnier and Massanari (2000, pp. 46-63) for a detailed description of therapy based on principles of Attachment Theory.

5.8 REFLECTION

Even though there are limitations to this study, the information gathered can contribute to broader knowledge and better understanding of Attachment Theory and its effect on the emotion regulation characteristics of children with ADHD. Parental guidance is needed in dealing with and building a sensitive, trusting relationship with children who have ADHD. The diagnosis of ADHD should be re-examined in the light of environmental factors and attachment relationships to prevent incorrect diagnoses. Knowledge of Attachment Theory will benefit all parents, teachers and multidisciplinary professionals who have or work with children. Emotion forms part of our everyday life. How we regulate and display these emotions rely on our attachment history, during which we learn to regulate emotions efficiently. This area of study needs to be a focus of investigation among all cultures in South Africa.

6. REFERENCES

Ainsworth, M.D.S. (1969a). *Maternal Sensitivity Scales.* Retrieved May, 20, 2008, from http://www.psychology. sunysb.edu/ewaters/552/ senscoop.htm

Ainsworth, M.D.S. (1969b). Object Relations, Dependency and Attachment: A Theoretical Review of the Infant-Mother Relationship. *Child development*, *40*, 969-1025.

Ainsworth, M.D.S., Blehar, M.C., Waters, E., & Wall, S. (1978). *Patterns of Attachment: A psychological study of the strange situation.* Hillsdale, N.J.: Erlbaum.

American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision.* Washington, DC, American Psychiatric Association.

Andreou, G., Agapitou, P. & Karapetsas, A. (2005). Verbal skills in children with ADHD. *European Journal of Special Needs Education, 20*(2), 231- 238.

Aron, L. (1996). *A meeting of minds: Mutuality in Psychoanalysis.* Hilsdale, NJ: The Analytic Press.

Babbie, E. & Mouton, J. (2001). *The practice of Social Research.* Cape Town: Oxford University Press.

Balbernie, R. (2007). The move to intersubjectivity: a clinical and conceptual shift of perspective. *Journal of Child Psychotherapy, 33*(3), 308-324.

Barkley, R.A. (1997). *ADHD and the nature of self-control.* New York: Guilford Press.

Barkley, R.A. (2003). Issues in the diagnosis of attention-deficit and hyperactivity disorder in children. *Brain and Development, 25*, 77- 83.

Barkley, R.A. (2004). Attention-Deficit Hyperactivity Disorder and Self-Regulation: Taking and evolutionary perspective on executive functioning. In R.F. Baumeister & K.T. Vohs, *The Handbook of Self- Regulation: Research, Theory and Applications.* New York, London: The Guilford Press.

Barkley, R. A. (2005). *Take Charge of ADHD - A Complete Authoritative Guide for Parents.* Australia: Hinkler Books Pty Ltd.

Barry, R.A., Lakey, B. & Orehek, E. (2007). Links among attachment dimensions, affect, the self, and perceived support for broadly generalized attachment styles and specific bonds. *Personality and Social Biology Bulletin, 34*, 340-353.

Beebe, B., Knoblauch, S., Rustin & Sorter, D. (2005). *Forms of intersubjectivity in infant research and adult treatment.* New York: Other Press.

Benjamin, J. (1990). Recognition and destruction: An outline of intersubjectivity. In S.A. Mitchell & L. Aron (Eds.) (1999), *Relational Psychoanalysis: The emergence of tradition,* 181-200, London: The Analytic Press.

Bowlby, J. (1956). The growth of independence in the young child. *Royal Society of Health Journal, 76*, 587-591.

Bowlby, J. (1958). The Nature of the Child's Tie to His Mother. *International Journal of Psycho-Analysis, 39*, 350-373.

Bowlby, J. (1969). *Attachment and Loss: Volume 1. Attachment*. London: Pimlico

Bowlby, J. (1973). *Attachment and Loss: Volume 2. Separation, Anger and Anxiety*. London: Pimlico

Bowlby, J. (1980). *Attachment and Loss: Volume 3. Sadness and Depression.* London: Pimlico

Bretherton, I. (1992). The Origins of Attachment Theory. *Developmental Psychology, 28*, 759-775.

Brisch, K.H. (2002). *Treating Attachment Disorders, From Theory to Therapy.* New York: The Guildford Press.

Brown, G.L., McBride, B.A., Shin, N., & Bost, K.K. (2007). Parenting Predictors of Father-Child Attachment Security: Interactive Effects of Father Involvement and Fathering Quality. *Fathering, 5*(3), 197 - 219.

Carr, A. (2006). *The Handbook of Child and Adolescent Clinical Psychology. A Contextual Approach.* London: Routledge Taylor & Francis Group.

Cassidy, J. (1994). Emotion regulation: Influences of attachment relationships. In N.A. Fox (Ed.). The development of emotion regulation: Biological and behavioural considerations. *Monographs of the Society for Research in Child Development, 59*(240), 228-249.

Clarke, L., Ungerer, J., Chahoud, K., Johnson, S. & Stiefel, I. (2002). Attention Deficit Hyperactivity Disorder is associated with Attachment Insecurity. *Clinical Child Psychology and Psychiatry, 7*,179-198.

Concoran, J. & Dattalo, P. (2006). Parental Involvement in Treatment for ADHD: A Meta-Analysis of the Published Studies. *Research on Social Work Practice, 16* (6), 561.

Denzin, N.K. & Lincoln, Y.S. (Eds.), (2005). *The Sage Handbook of Qualitative Research* (3rd ed.). Thousand Oaks, London, New Delhi: Sage Publications.

Diamond, L.M. & Fagundes, C.P. (2008). Developmental perspectives on links between attachment and affect regulation over the lifespan. *Advances in Child Development and Behaviour, 36*, 83-134.

Donald, D., Lazarus, S., Lolwana, P. (2006). *Educational Psychology in Social Context* (3rd ed.) Oxford University Press Southern Africa.

Erdman, P. (1998). Conceptualising ADHD as a contextual response to parental attachment. *The American Journal of Family Therapy, 26,* 177-185.

Fabiano, G. (2007). Father Participation in Behavioural Parent Training for ADHD: Review and Recommendations for Increasing Inclusion and Engagement. *Journal of Family Psychology, 21*(4), 683.

Fonagy, P., Steele, M., Steele, H., Moran, G.S., Higgitt, A.C. (1991). The capacity for understanding mental states: The reflective self in parent and child and its significance for security of attachment. *Infant Mental Health Journal, 12*(3), 201-218.

Fonagy, P., Gergely, G., Jurist, E.L. & Target, M. (2002). *Affect regulation, mentalization and the development of the self.* New York: Other Press.

Frank, E. (2007, January, 22). *A handout on Research into separation responses of infants and young children. A lens to look through* Workshop on Attachment Theory presented at the Unit for Educational Psychology, Stellenbosch University (22-26 January).

Goldberg, S. (2000). *Attachment and Development.* London: Hodder Education.

Green, C. & Chee, K. (1997). *Understanding ADHD - A Parent's guide to Attention Deficit Hyperactivity Disorder in children.* London: Ebury Press.

Greenberg, J & Mitchell, S.A. (1983). *Object relations in psychoanalytic theory.* Cambridge, MA: Harvard University Press.

Grossmann, K.E. & Grossmann, K. (1999). Mary Ainsworth: Our guide to attachment research. *Attachment and Human Development, 1,* 224-228.

Hatch, T. (2002). *Integrated knowledge, identity and context.* Cambridge: Clare College.

Henning, E. (2004). *Finding your way in qualitative research.* Pretoria: Van Schaik Publishers.

Hobart, C. & Frankel, J. (2004). *A practical guide to child observation and assessment* (3rd ed.). Cheltenham: Nelson Thornes Ltd.

Jacobvitz, D. & Sroufe, L.A. (1987). The Early Caregiver-Child Relationship and Attention-Deficit Disorder with Hyperactivity in Kindergarten: A Prospective Study. *Child Development, 58*, 1496-1504.

Johnson, B. & Christensen, L. (2008). *Educational Research - Quantitative, Qualitative and Mixed Approaches* (3rd ed.). Los Angeles, London, New Delhi, Singapore: SAGE Publications.

Jureidini, J. (1996). Some reasons for concern about Attention Deficit Hyperactivity Disorder. *Journal of paediatrics and child health, 32*, 201-203.

Karen, R. (1990). Becoming Attached. *The Atlantic Monthly*, February, 1990.

Kerns, K.A., Abraham, M.M., Schlegelmilch, A. & Morgan, T.A. (2007). Mother-child attachment in later middle childhood: Assessment approaches and associations with mood and emotion regulation. *Attachment and Development, 9*(1), 33-53.

Knox, J. (2003). *Archetype, Attachment, Analysis - Jungian psychology and the emergent mind.* London, New York: Routledge Taylor and Francis Group.

Kronenberger, W.G. & Meyer, R.G. (1996). *The Child Clinician's Handbook.* Massachusetts: Allyn & Bacon.

Ladnier, R.D. & Massanari, A.E. (2000). Treating ADHD as attachment deficit hyperactivity disorder. In T.M. Levy, *Handbook of Attachment Interventions.* San Diego, London: Academic Press.

Lay, K-L., Waters, E., Posada G., & Ridgeway, D. (1995). Attachment security, affect regulation and defensive responses to mood induction. *Caregiving, Cultural and Cognitive Perspectives on Secure Base Behaviour and Working Models: New Growing Points of Attachment Theory and Research. Monographs of the Society for Research in Child Development, 60*(2-3), 179-196.

Leedy, P.D. (2001). *Practical research: planning and design.* Upper Saddle River, N.J.: Merrill Prentice Hall.

Lecuyer, E. & Houck, G.M. (2006). Maternal limit-setting in toddlerhood: Socialization strategies for the development of self-regulation. *Infant Mental Health Journal, 27*(4), 344-370.

Levy, T.M. (2000). *Handbook of Attachment Interventions.* San Diego, London: Academic Press.

Lifford, K.J., Harold, G.T., Thapar, A. (2008). Parent-Child Relationships and ADHD Symptoms: A Longitudinal Analysis. *Journal of Abnormal Child Psychology, 36*(2), 285-297.

Lindegger, G. (2006). Research methods in clinical research. In M. Terre Blanche, K. Durrheim & D. Painter, *Research in Practice, Applied Methods for Social Sciences* (2nd ed.). University of Cape Town Press.

Lloyd, G., Stead, J. & Cohen, D. (2006). *Critical new perspectives on ADHD.* Abingdon: Routledge publishers.

Lyons-Ruth, K. (1996). Attachment relationships among children with aggressive behaviour problems: The role of disorganised early attachment patterns. *Journal of Consulting and Clinical Psychology, 64*, 64-73.

Lyons-Ruth, K. (1998). Implicit relational knowing. *Infant mental health journal, 19*, 282-291.

Lyons-Ruth, K. (1999). The two-person unconscious intersubjective dialogue, enactive relational representation and the emergence of new forms of relational organization. *Psychoanalytic Inquiry, 19*, 576-617.

Main, M., Kaplan, N., Cassidy, J. (1985). Security in infancy, childhood and adulthood: A move to the level of representation. In I. Bretherton & E. Waters (Eds.), Growing points of attachment theory and research. *Monographs of the society for research in child development, 50*(1-2), 66-104.

Main, M. (1999). Mary D. Salter Ainsworth: Tribute and Portrait. *Psychoanalytic Inquiry, 19*(5)*,* 682-736*.*

Mash, E.J. & Barkley, R.A. (2006). *Treatment of Childhood Disorders* (3rd ed.).New York: The Guildford Press.

Mash, E.J. & Wolfe, D.A. (2005). *Abnormal Child Psychology. Third Edition.* Wadsworth: Thomson Learning Inc.

Merriam, S.B. (1998). *Qualitative research and case study applications in education.* California: Jossey-Bass Inc. Publishers.

Merriam, S.B. and Associates (2002). *Qualitative Research in Practice, Examples for Discussion and Analysis.* San Francisco: Jossey-Bass.

Mertens, D.M. (2005). *Research and Evaluation in Educational Psychology; Integrating diversity with Quantitative, Qualitative and Mixed Methods.* (2nd Edition) California: Sage Publications.

Mouton, J. (1998). *Understanding social research.* Pretoria: Van Schaik Publishers.

Neven, R.S., Anderson, V. & Godber, T. (Eds.) (2002). *Rethinking ADHD: Integrated approaches to helping children at home and at school.* Crows Nest NSW: Allen & Unwin.

Observation Techniques. (2004). Retrieved September 9, 2008, from http://www.newchildcare.co.uk/Target.html

Őngel, Ű. (2006). 'ADHD' and parenting styles. In G. Lloyd, J. Stead & D. Cohen, *Critical new perspectives on ADHD.* Abingdon: Routledge Publishers.

Oppenheim, D., Dolev, S., Koren-Karie, N., Sher-Censor, E., Yirmiya, N. & Salomon, S. (2007). Parental Resolution of the Child's Diagnosis and the Parent-Child Relationship: Insights from the reaction to Diagnosis Interview. In D. Oppenheim & D.F. Goldsmith (Eds.), *Attachment Theory in Clinical Work with Children: Bridging the Gap between Research and Practice* (pp. 109-136). New York, London: The Guilford Press.

Owen, I.R. (2006). Attachment and Intersubjectivity. *Existential Analysis, 17*(1), 14-38.

Patton, M.Q. (2002). *Qualitative Research and Evaluation Methods* (3rd ed.). Thousand Oaks: Sage Publications.

Rafalovich, A. (2001). Psychodynamic and Neurological Perspectives on ADHD: Exploring Strategies for Defining a Phenomenon. *Journal for the theory of social behaviour, 31(4), 397-418.*

Rholes, W.S., Simpson, J.A., Friedman, M. (2006). Avoidant attachment and the experience of parenting. *Personality and Social Psychology Bulletin, 32*, 275-285.

Rosswurm, A.R., Pierson, B.R., Woodward, L.E. (2007). The Relationship Between MBTI Personality Types and Attachment Styles of Adults. *Psychology Journal*, *4*(3), 109-127.

Rothbauer, P.M. (2008). *The Sage Encyclopaedia of Qualitative Research Methods* (L.S. Given, Ed.). London: Sage Publications.

Sadock, J.S. & Sadock, V.A. (2003). *Synopsis of Psychiatry - Behavioural Sciences/Clinical Psychiatry: Ninth Edition.* Lippincott Williams and

Schwandt, T.A. (1997). *Qualitative inquiry: a dictionary of terms.* Thousand Oaks, California: Sage.

Sheffield-Morris, A., Silk, J.S., Steinberg, L., Myers, S.S. & Robinson, L.R. (2007). The Role of the Family Context in the Development of Emotion Regulation. *Social Development, 16*(2), 361-388.

Slade, A. (1999). Attachment theory and research: Implications for the theory and practice of individual psychotherapy for adults. In J. Cassidy & P. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 575-594). New York: Guildford Press.

Sonkin, D.J. (2005). Attachment Theory and Psychotherapy. *California Association of Marriage and Family Therapists: The Therapist.* January/February 2005.

Sroufe, L.A. (1996). *Emotional Development: The organisation of emotional life in the early years.* New York, NY: Cambridge University Press.

Stake, R.E. (2005). Qualitative Case Studies. In N.K. Denzin and Y.S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (3rd ed.). Thousand Oaks, London, New Delhi: Sage Publications.

Steele, H. & Steele, M. (2008). On the origins of reflective functioning. In F.N. Busch, *Mentalization: Theoretical Considerations, Research Findings, and Clinical Implications.* Psycho-analytic Book Series, *29*, 133-158. London, New York: The Analytic Press

Stiefel, I. (1997). Can disturbance in Attachment contribute to Attention Deficit Hyperactivity Disorder? A Case Discussion. *Clinical Child Psychology and Psychiatry, 2*(1), 45-64.

Stock-Kranowitz, C. (2005). *The Out-of-Sync Child: Recognising and Coping with Sensory Processing Disorder.* New York: Penguin Books.

Terre Blanche, M., Durrheim, K., Painter, D. (2006). *Research in Practice, Applied methods for the social sciences* (2nd ed.). University of Cape Town Press.

Terre Blanche, M. & Kelly, K. (1999). Interpretive methods. In: M. Terre Blanche & K. Durrheim (Eds.) *Research in Practice: Applied Methods for the Social Sciences.* Cape Town: University of Cape Town Press (123-145).

Thompson, R.A. (1990). *Socio-emotional development.* Lincoln: University of Nebraska Press.

Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. *Monographs of the Society for Research in Child Development, 59,* 25-52.

Tripp, G., Schaughency, E.A., Langlands, R., Mouat, K. (2007). Family Interactions in Children With and Without ADHD. *Journal of Child and Family Studies, 16*(3), 385-401.

Waters, E. & Beauchaine, T.P. (2003). Are there really patterns of attachment? Theoretical and Empirical Perspectives. *Developmental Psychology* (2003, in press).

Waters, E., Kondo-Ikemura, K., Posada, G. & Richters, J.E. (1991). Learning to love: Milestones and Mechanisms. In M. Gunner & L.A. Sroufe (Eds.), *The Minnesita Symposia on Child Psychology, 23*, 217-255. Hillsdale, NJ: Erlbaum.

Willig, C. (2001). *Introducing qualitative research in psychology: Adventures in theory and method.* Great Brittain: Open University Press.

Willis, J.W. (2007). *Foundations of qualitative research - Interpretive and critical approaches.* Thousand Oaks, California: Sage Publications.

Winnicott, D.W. (1971). *Playing and Reality.* New York: Routledge Classics.

ADDENDUM A

Interview 1

1. When was Amy diagnosed with ADHD?

2. Did she use medication since then?

3. Were there any strategies that you put in place to address the diagnosis and therefore ease the process?

4. Were any other diagnoses made?

5. How did the diagnosis of ADHD affect your family?

6. How would you describe Amy as a baby?

7. How would you describe her now?

8. How did Amy respond to being separated from you when she was younger? How did she respond to strangers?

9. Can you describe her daily routine?

10. How does Amy respond to instructions?

11. How does she respond to rules and boundaries at home?

12. Is Amy impulsive in her daily activities?

13. How does she respond to change?

14. How did she respond to the birth of her younger brother?

15. How does Amy respond to discipline?

16. Does she have any fears that you are aware of?

17. How does she communicate her feelings and emotions (anger, sadness, happiness, excitement, shyness, disappointment)?

18. How does she respond to others' emotions?

Interview 3: Reflective Functioning

1. How do you think does Amy understand her diagnosis of ADHD?

2. How does she understand the fact that she needs extra learning support at school?

3. What do you think are her dreams and desires for her life?

4. What are your dreams and wishes for her life?

5. What are her primary daily needs?

6. How did your childhood and your parents' parenting styles influence your style of parenting with Amy?

7. How do you understand parenting?

8. How do you understand the difference between your three children?

Semi-gestruktureerde onderhoud

Datum: 17 September 2008

Mense teenwoordig: Navorser, Moeder (Yolanda), Vader (Pieter)

Plek: Deelnemers se huis in Stellenbosch

(M) - Moeder
(V) - Vader
(N) - Navorser

Temas:
Emotion Regulation (ER)
ADHD Characteristic (ADHD)
Attachment Behaviour (AB)
Reflective Functioning (RF)

Vraag en Antwoord	*Kode en Tema*
1. Wanneer is Amy met ADHD gediagnoseer?	
Moeder (M): O jinne, nou moet ons eers daai leêr in die hande kry. **Vader (V):** 18 maande, wanneer sy nie gekruip het nie. **M:** Nee, nee, dit was lae spiertonus...ag ek skat, kyk ons het begin bekommerd raak, ek skat so Gr 0-R se kant, 4-5 jaar wat ons haar amptelik gediagnoseer het...so, ja so 5 jaar. **Navorser (N):** So wanneer sy in Graad 0 was... **V:** Wie was haar dokter? **M:** Dr Adri **N:** Van der Walt, né **M:** Ja	**Ontwkikkelingsagterstande ADHD**
En medikasie, het sy toe al begin om medikasie te gebruik?	
M: Nee, medikasie...hulle het vir ons gesê sy moet medikasie kry in Graad 1, of was dit Graad R al? **V:** Wat het ons eerste gedoen? Ons wou nie... **M:** Kyk ons wou nie medikasie gee nie...toe het ons...ons het vir 'n baie lang tyd geweier om die Ritalin te gee. **V:** Ons het voor skool al arbeidsterapie huiswerk gehad. **M:** Hmmm **V:** Maar ons het nie toe medikasie gee nie **M:** Nee, en in Graad 1...was dit Graad R of Graad 1?...toe het sy...hulle het vir ons gesê ons moet vir haar medikasie gee en hmmm, toe ek weer...ons was maar baie traag met die medikasie, ons wou dit nie vir haar gee nie, en toe later het ons agtergekom dat ons maar sal moet gee want nou is daar emosionele	**ADHD** **Behandeling (ADHD)** **Behandeling (ADHD)** **ADHD**

agterstande ook, want toe het haar selfbeeld daaronder gely. Ek wil net gou kyk of ek daai leêr in die hande kan kry...(verlaat tafel). **V:** Want ons begin toe met Ritalin...ons het met Ritalin begin en toe't sy nou maar die dosis verhoog en verhoog en verhoog soos ons aangaan. Elke keer as sy die dosis verhoog was daar 'n positiewe uitwerking en dan plat dit weer af dat dit lyk of daar geen verskil is nie...en weer en weer en weer...totdat ons nou uiteindelik op Concerta is wat net 'n langdurige effek het. **N:** Werk dit beter? **V:** Ek dink tog so...ja, dink ook die geveg om die pille te gee..daar is nie nou een nie, want dis in die oggend vinnig en dan is dit verby. Die Ritalin het hulle voorgeskryf twee pille drie keer 'n dag, so dit was "heavy" en baie om te drink en heeltyd hierdie konstante bewustheid. **M:** Ja, ek sien hier in 2003...	**RF** **Behandeling (ADHD)**
Was daar enige ander strategieë wat julle sedert die diagnose geïmplementeer het, wat dinge moontlik makliker kon maak?	
M: Ek dink die manier hoe ons vir haar opdragte gee...hmmm...die manier ons ons maar met haar werk...hmmm...jy sal haar baie meer, wat's die woord...moet "prompt"...hhh...Pieter is baie beter daarmee as ek...om te sê sussie ruim jou kamer op...kom, wat sien jy eerste. Ons breek maar alles op in kleiner stukkies, dan probeer ons maar met haart eetgewoontes ook...hmmm...nie preserveermiddels gee nie en minder suiwel hoewel dit nie baie geslaagd is nie...en Omega 3 en 6, maar meer omega 3 op hierdie stadium...en sulke dingetjies doen ons nou maar. **V:** Ja, ek dink die goed wat ons by die huis doen is als wat die arbeidsterapeute en spraakterapeute deur die jare vir ons gehoor het, soos laat sy vir ons alles terug vertel wat ons vertel...dis maar alles goed wat ons maar gehoor het. **M:** En die manier hoe jy haar opdragte gee en wat jy kan doen om te help...tipe speletjies...die manier hoe ons huiswerk doen...jy sal nou kort tydjies en dan oefen...net om haar eers weer bietjie "alert" te kry. **V:** Daar was 'n tyd wat ons haar geborsel het. **M:** Ons doen dit nie meer nie.	**Struktuur, roetine, dieët, behandeling (ADHD)** **Instruksies, ouerleiding (ADHD)**

V: Baie gereeld en druk al die "joints" **M:** Ja, ons doen dit ook nie meer nie...en natuurlik nou die perdry en vir 'n lang ruk het sy fisio gehad. Sy ry nou weer perd, sy het op 'n stadium ook perd gery. **N:** Is dit spesifiek vir die lae spiertonus? **M:** Ja...hulle sê lae spiertonus, maar ook, dit beïnvloed ook natuurlik haar manier of hoekom sy so swak konsentreer...sy raak gouer moeg as ander, en sulke goed. **N:** Dit klink of dit deel raak van 'n mens se lewensstyl. **M:** Ja, ek raak maar nog baie ongeduldig...dan voel 'n mens partykeer, hierdie ding moes sy nou al bemeester het...hmm ons raak nou al baie lank hieraan en dan raak 'n mens maar ongeduldig...maar ja, ek dink mens leer maar seker sulke "skills" ... **V:** Ja, ek dink party dae, jy weet, voel jy, dis moeilik om eenvoudige goedjies aan te leer en ander dae verras sy jou dat jy dink wow…hoe het jy dit reggekry?..so, hmm, dis maar rerig aan en af. Dit gaan by tye baie goed en by tye wat ons goed weer vergeet wat ons baie al aan gewerk het. **M:** Dan dink ons ons moet dit maar weer 'n bietjie doen, of dit maar weer 'n bietjie doen. **V:** Dis nie...ek wil amper sê daar's nie 'n wenresep nie, dis net aanhou...	**Alternatiewe ondersteuning en intervensie** **Bykomende diagnose** **RF** **Ouers se ervaring en emosies**
Was daar enige ander diagnoses? Julle het genoem van die lae spiertonus.	
M: Ja, lae spiertonus, aandagafleibaar, tasdefensief, of hoe noem mens dit? **V:** Ja, tasdefensief.. **M:** Sy het op 'n stadium spraakterapie gehad...dis maar baie vir sinskonstruksies. **V:** Dis maar baie sensoriese integrasie. **M:** Sy het op 'n stadium baie gehakkel...sy het vir 'n lang tyd haar eerste woord so baie herhaal...nie regtig hakkel nie, maar sy't baie herhaal. **V:** Maar baie kinders doen dit. **M:** Dis asof sy haar aandag soek, maar sy het dit vir 'n lang tyd spraakterapie ook gehad..	**Bykomende diagnoses** **Alternatiewe ondersteuning en intervensie** **RF**
Hoe het die diagnose julle as familie geaffekteer?	

M: Ag, ek dink nie regtig nie, 'n mens het dit al so lankal. **V:** Dis die ding...ons het niks anders geken nie, verstaan...soos jy gaan dokter toe, dan hoor jy jy moet dit doen, en dan dit. Ons kan dit nie meet aan iets anders nie. Vandat Thomas daar is, mens sien dit nou...dinge gebeur net automaties, dit wat ons altyd aan moes werk. **M:** So dis eintlik goed dat sy die eerste kind was. **V:** Ja. **M:** Hy maak so maklik groot, want hy doen alles vanself. Waar ons moes haar leer spring, haar leer hang ...alles moet jy haar leer...ja...ek dink...ja, mens besef nou net...dit het ons nie soseer gepla nie. Wat...wat wel sleg is, is...dis nie vir ons so sleg soos wat dit eintlik vir haar sleg is nie, of laat ek so sê...in terme van haar sosiale "skills" en as 'n mens by ander mense kuier waar daar ander kinders is of so dan sien jy sy is ver agter, want sy is nie waar daai maatjies is nie...dis maar waar dit slegter is, maar in terme van ons huisopset is dit maar waaraan ons gewoond is... **V:** Ek dink nog 'n ding wat nogal stres op ons gesit het was om die regte skool te soek, want dit was nogal 'n regte krisis. Ek meen ons het probeer inkom by Paarlskool en by Jan Krielskool, maar ons kon nie plek kry nie. Ek meen, ons het opgeëindig by die hoof van spesiale skole in die Wes-Kaap, dat hy vir ons so 'n swak verskoning gee, ek meen, hy stuur vir ons na Cloetesville Hoërskool toe. Ek belowe jou...dan dink ek net jy is absurd...jy weet nie waarvan jy praat nie...hierdie dogtertjie gaan op geen manier dit daar oorleef nie...ek werk nou met ABBA kinders wat almal tik-verslaaf is en almal in Cloetesville Hoërskool is. Dan sê hy ek kan maar rustig wees, hy weet presies waarvan ek praat, want sy kind was in Jan Kriel...wel jou kind het plek gekry, jy't jou kind nie in Hoërskool Cloetesville gaan sit nie. Ek was so kwaad gewees.. toe het ons nou per geluk haar huidige skool gekry...die eerste week wat sy daar was. **M:** Was ons in 'n toestand. **V:** Ons was in 'n toestand...ons wou haar net daar uithaal, ons wou dit nie aan ons kind doen nie. Daai klein patetiese skooltjie...nou het dit ook al so gegroei...nou's dit nogal regtig 'n goeie skool.	RF **Ouers se emosies** RF **Ouers - emosies en ervaring**

Hulle groei regtig baie mooi en hulle doen eintlik "amazing" werk en ons is eintlik baie "blessed" dat ons toe nie plek gekry het in Jan Kriel of Paarlskool nie. **M:** Iets wat ek aan dink van nou-nou...wat ook anders was met Amy was natuurlik, dat ons nie getroud was na haar geboorte nie. Kyk, daar was 5 jaar wat ons nie getroud was nie. Ons het kontak gehad, maar ek en Amy was alleen vir 'n jaar in die Kaap ook...wat Pieter nog in Bloemfontein was. Ons was eers getroud na 5 jaar. Ek glo dit het ook maar seker 'n invloed, want daar het definitief 'n draai gekom vandat hy permanent by ons was, want hy speel natuurlik op die regte manier met haar, wat ek nie regtig gedoen het nie. So, daar het definitief meer balans in haar lewe gekom vandat ons getroud is.	**Agtergrondinligting - NB** **Stabiliteit - familie**
Hoe sal julle vir haar as 'n baba beskryf?	
V: Slaperig. **M:** Sy het ongelooflik baie geslaap. **V:** Sy het nooit gehuil nie, nooit stout nie, sy het net geslaap. **M:** Maar sy was op 'n stadium...daar was later tye wat sy moes skool toe gaan. Sy was baie siek ook. **V:** Ja, sy was gereeld siek. **M:** Ons het geglo haar ontwikkelingsagterstand was as gevolg daarvan...maar sy was baie stil. Sy het laat gepraat...maar sy was 'n rustige, dierbare, droomkind... eintlik. **Volledige onderhoud beskikbaar op aanvraag**	**Ouers se ervaring Ontwikkelingsagterstande**

Semi-structured Interview

Date: 17 September 2008

People present: Researcher, Mother (Yolanda), Father (Pieter)

Place: Participants' home in Stellenbosch

(M) - Mother
(F) - Father
(R) - Researcher

Themes:
Emotion Regulation (ER)
ADHD Characteristic (ADHD)
Attachment Behaviour (AB)
Reflective Functioning (RF)

Question and Answer	***Code and Theme***
1. When was Amy diagnosed with ADHD?	
Mother (M): Oh golly, I'll have to find that folder now. **Father (F):** 18 months, when she had not crawled yet. **M:** No, no, that was low muscle tone...hmmm I guess, you see, we became concerned, I guess around Grade 1, 4-5 years when we officially diagnosed her…So yes, about 5 years of age. **Researcher (R):** So, it was when she was in Grade 0? **F:** Who was her doctor? **M:** Dr Adri **R:** Van der Walt? **M:** Yes	**Developmental milestone delays** **ADHD**
And medication? When did she start using medication?	
M: No, medication...they told us to get medication when she was in Grade 1, or was it Grade R already? **F:** What did we do first? We didn't want to... **M:** You see, we didn't want to give medication...then we…we resisted to give Ritalin for a very long time. **F:** We had occupational therapy homework since pre-school already. **M:** Hmmm **F:** But we didn't give medication then... **M:** No, and in Grade 1...Was it Grade R or Grade 1? Then she...they told us that we should give her medication and...hmmm, then again I...we were very slack on the	**ADHD** **Treatment (ADHD)** **Treatment (ADHD)** **ADHD**

medication, we didn't want to give it to her, and then later we realized that we'd have to give it to her, because now there are emotional delays as well, because then her self-concept took a knock...I just quickly want to see if I can find that folder…(mother leaves the table) **F:** Because we then started with Ritalin…we started with Ritalin and then she kept increasing the dosage as we went on. Each time she increased the dosage, there was improvement but soon lapsed and then it seemed as though there's no difference on the medication...and again and again and again…till we put her on Concerta at last, which has a long-lasting effect. **R:** Does it work better? **F:** I do think so...yes, also think about the fights to take the pills…There is no fight anymore…because it's in the morning quickly and then it's done. They prescribed the Ritalin to be taken three times a day…it was a bit heavy and a lot to take and the constant awareness… **M:** Yes, I see in 2003…	**RF** **Treatment (ADHD)** **Treatment ADHD** **RF**
Were there any other strategies that you put in place since then, to ease the process?	
M: I think the way in which we give her tasks and instructions...hmmm...the way we work with her....hmmm…one has to prompt her more...hhhh...Pieter is better at that than I...he'll say, "Darling, tidy your room…Come, what do you see first? We simply break everything into smaller pieces...then we also try with her dietary habits. Hmmm...we don't give preservatives and less dairy, which is, however, not very successful…and Omega 3 and 6, but more Omega 3 at this stage. These are the types of things we do. **F:** Yes, I think the things we do at home are all the things that occupational therapists taught us through the years, for example for Amy to repeat all the instructions we give…those are all the things we've heard from occupational therapists. **M:** And the way you instruct her to do things and what one can do to help...types of games...the way we do homework. We work for short periods of time and then practise…just to get her alert.	**Structure** **Routine** **Diet** **Treatment (ADHD)** **Instructions ADHD** **Parent guidance ADHD**

F: There was a time when we used to brush her. **M:** We don't do that anymore. **F:** Very often... We used to massage her joints= **M:** Yes, we don't do that anymore either. Now it's the horse riding and she had physio for an extended period. She does horse riding now. **R:** Is that specifically for low muscle tone? **M:** Yes, they say low muscle tone, but it also influences the way and why her concentration is so poor...she tires easily...and things like that. **R:** It sounds as if it is part of your lifestyle. **M:** Yes. However, I still get very impatient. At times I feel...she should have acquired this by now. Hmmm, we've been working on certain things for a long time and then one becomes impatient. But yes, I guess one learns certain skills... **F:** Yes, I think some days, you know, one feels it's difficult to learn simple things and then on other days she surprises you that you think…wow…how did you do that? So, yes, it's really on and off. Things go very well at times and other times we forget things that we've been working on for quite a while. **M:** Then we simply think that we have to do this a bit more and then this a bit more. **F:** It is not...I almost want to say that there is no winning recipe, it is just perseverance.	**Alternatiewe ondersteuning en intervensie** **Bykomende diagnose** **RF** **Parents' experience and emotions** **RF** **RF**
Were any other diagnoses made...I heard you mention low muscle tone?	
M: Yes, low muscle tone, attention deficit, touch defensive, or what do you call it? **F:** Yes, touch defensive... **M:** She had speech therapy at some stage. It was mainly for sentence construction. **F:** A lot of sensory integration. **M:** She stuttered a lot at a stage. For a long time she repeated her first word a few times; not really stuttering, but she repeated words a lot. **F:** But a lot of children do that. **M:** It was as though she seeks attention in doing that, but she	**Accompanying diagnoses** **Alternative support and intervention** **RF**

had speech therapy for an extended period of time.	
How did the diagnosis affect you as a family?	
M: Ah, I don't really think it did; we have been living with it for such a long time. **F:** That's it; we did not know anything else, understand. It is a matter of going to the doctor, then you hear what you have to do and then you hear you have to do that, and you do it. We can't compare it with something else. Since Thomas is here, we can see it. Things happen automatically; those are the things we always had to work at. **M:** It's actually a good thing that she was our first child **F:** Yes... **M:** we raised him so easily, because he did everything automatically and by himself, whereas we had to teach her to jump, we had to teach her to hang...we had to teach everything to her. Yes, I think...yes, one realises it now. Back then it did not bother us as such, because...what was hard… For us it wasn't as hard as it was for her, or let me say in terms of her social skills and when we visit other people who have children, then one can see her delays, because she is not where those friends are. That is where it is hard, but in terms of our household, it's what we are used to… **F:** I think another thing that added to our stress was to find the appropriate school for her to go to, because that was quite a crisis. I mean, we tried to enter her at Paarl School and at Jan Kriel, but with no success. I mean, we ended up talking to the principal of special schools in the Western Cape. he gave a poor excuse. I mean, he sent us to Cloetesville High School. I promise you, I thought, "You are absurd, you don't know what you are talking about. This little girl is in no way going to survive in that school." I work with ABBA children who are all addicted to tik and they are all in Cloetesville High. Then he said I should relax because he knew exactly what I was talking about because his child was in Jan Kriel. Well, your child got admitted to Jan Kriel, you did not enroll your child at Cloetsesville. I was so angry. Then, by luck, we found her current school. The first week she	**RF** **Parents' perception and emotion** **RF** **RF** **RF** **Parents' emotions** **Concern**

was there... **M:** We were in a terrible state. **F:** We were in a terrible state. We just wanted to take her out of there, we did not want to do that to our child. That pathetic little school - it has grown and extended so much by now. Now it's actually quite a good school…they develop really well and they actually do amazing work and we are actually really blessed that she could not go to Jan Kriel or Paarl School… **M:** Something I'm thinking about is related to what we just spoke about. Something that was different with Amy was that we were not married after her birth. There were 5 years that we weren't married. We were in touch, but Amy and I were alone in the Cape as well. Peter was still in the Free State by that time. We got married only after 5 years. I believe that also played a role, because there has been a real difference since he joined us permanently, because he plays with her in the right way, something I haven't really done. So, there is definitely more balance in her life since we married.	**Parents - emotions and experience** **Background information** **Maternal experience and approach - different from father's** **Stability - family**
How would you describe her as a baby?	
F: Sleepy. **M:** She slept an awful lot. **F:** She never cried, she was never naughty. Basically, she only slept. **M:** But at a stage she was...there were other times when she had to go to school. Often, she was also very ill. **F:** Yes, she was often ill. **M:** We believe her developmental delays were because of that. But she was very quiet; she started talking only at a late stage...but she was a calm and lovely dream child, actually.	**Parents' experience of her developmental delays**
And how would you describe her now?	
M: (mother laughs) **F:** Man, teenager in the making. Certainly, real teenager characteristics surfacing. **M:** She is a very sensitive child. **F:** Yes, very. **M:** She, hmm...I don't know how to...	**Social delays** **RF**

F: Her social development is definitely delayed. She struggles to…with other children... **M:** Other children struggle to get along with her. She loves people and she is a very loving and extremely caring child. **F:** Hmmm, when you ask her what she wants to become when she grows up, it will be a teacher. She admires a teacher. **M:** Or a horse riding teacher. **F:** Or a horse riding teacher! If she liked the fire brigade she would have wanted to become a fire brigade teacher. **M:** Yes, she loves babies a lot. She is really...she gets along better with younger children. The older children get annoyed with her because of the way she communicates. **F:** But she...she will also…she'll start to stand her ground with her peers. for example, one of the boys at school told her that she was a loser, then she told him that she had not lost anything and that he had lost his manners (mother laughs). So she can reason herself out of such a situation, so I thought that was cool. **M:** It's quite good considering her... One doesn't want to tell a child to stand their ground and to fight back, but one has to tell her to do that. She'll simply cry, she'll never stand her ground. But she is starting to...I think her brother helps that she will stand her ground more often. ***The complete interview is available in English upon request.***	**RF** **Social interaction** **Communication skills** **ER** **RF** **Emotional experience - sensitive: cries easily** **Insecure** **ER** **RF**

ADDENDUM B

Observation #: 7

Date/day: Thursday, 16 October 2008 **Time**: 17:30-19:00

Present: Father, Amy, Thomas and Mother (later on)

Immediate environment: Open area (kitchen/lounge/dining area)

Method: Event sampling - structured observation

Context: The father is working on his computer in the dining area. Amy is playing with her dolls in the dining area. Thomas is eating his porridge at the kitchen counter. The mother is due home any moment

Aim of observation:

To observe the following reunion behaviour upon the mother's return from work"

* Face-to-face interaction between parent and child.
* Greeting and following.
* Affectionate contact.
* Approach behaviour.
* Verbal and non-verbal interpersonal responses (between parent and child and between siblings).
* Proximity-seeking behaviour.
* Dependency behaviour, concentration and attention.
* Display of emotions and responses thereupon.
* Motivation and confidence.

Examples of aims during other observations:

To observe separation behaviour before school, or

To observe verbal and non-verbal interaction between parent and child, or

To observe a homework session after school, or

To observe the child at school

Comments:

<table>
<tr><th colspan="2"><u>Aim</u>: To observe reunion behaviour upon the mother's return from work</th></tr>
<tr><td>By aankoms: Amy en Thomas staan buite die huis vir my en wag. Thomas wys vir my dat hy ’n kortmouhemp en ’n kortbroek dra. Amy lig haar driekwartbroek op en wys na ’n wond op haar been (pleister op haar knie en skrape op haar onderbeen). Amy vertel vir my dat sy by die trappe afgeval het. Terwyl sy vertel, maak sy nie oogkontak nie en dramatiseer haar vertelling van die gebeurtenis.

<u>In die huis: Observasie begin</u>
Pa werk aan 'n voorlegging by sy rekenaar in die eetvertrek. Amy kom sit by die tafel waar ek sit. Sy het ’n sakkie by haar. Thomas kom sit op dieselfde stoel as Amy.
Amy: Nee Thomas!
Thomas: Ek was eerste hier!
Amy: Nee, ek gaan jou slaan!
Thomas: Kom ons sit saam...
Amy berus daarby en gaan voort met die sakkie in haar hand. Thomas staan op en loop in sy pa se rigting, waar sy pa nou met die kitaar speel. Amy maak die sakkie oop en haal ’n buisie met room uit. Sy praat aanhoudend met haarself oor haar besering en hóé seer sy gekry het. Nou smeer sy room aan die seerplekke. (Selfspraak volg)
Amy: Eina! Dit brand! Die skrape voel grof. Vandag was nou regtig ’n slegte dag - Ouch! - .omdat ek geval het. Nou gaan dit beter voel...met die room. Eina! Sjoe! Nou is daar nog ’n stukkende plek. Kyk daar, nou het dit begin bloei van die room,maar die room maak dit eintlik net skoon. Dis handeroom vir die skrape. Ouch! Eina!
Amy kyk gereeld in my rigting tydens haar selfspraak.
Amy: Ek het al so baie geval...amper myself gebreek. Ek kan nooit die trappe breek soos Pappa sê nie.</td>
<td>Sibling Interaction

Self-care
Self-soothe
Emotion regulation

Self-talk
Emotion regulation

Emotion regulation
Self-concept
Emotional display - expressing her feelings to herself</td></tr>
</table>

Sy kyk weer in my rigting. **Amy:** *Nee, my vaderland! Nou begin al my seerplekke bloei, en almal sien dit ook nog raak. Ek haat dit.* Amy sit en vryf al haar seerplekke en sug hardop. **Amy:** *Nou moet ek maar met die pyn hier sit. Dalk moet ek op die bank gaan lê of iets. My broek is nie vuil nie, al het ek by die trappe afgerol.Eina! Nou gaan al die kinders my vra wat het ek met my knieë gedoen. Al wat dit is, is ek het een trap gemis!* Amy staan op en loop in haar pa se rigting. Haar pa staan op en loop in die kombuis se rigting. **Pa:** *Ai, Sussa, gaan jy dit darem maak? Jy moet betyds sê sodat ons jou kan gebruik vir braaivleis terwyl jy nog vars is.* Pa glimlag, maar Amy maak nie oogkontak met haar pa nie. **Amy:** *Is jy nou mal!?* Amy gaan sit op die eetkamerstoel en sug hardop. **Amy:** *Ek is moeg.* Pa reageer nie op Amy se dialoog nie. Hy maak vir Thomas pap aan. **Pa:** *Sussa, wil jy nie ook bietjie pap hê nie?* Amy kyk op in pa se rigting. **Amy:** *Nee dankie, Pappa.* Amy loop na die klavier toe en speel 'n paar note. Daarna staan sy op en loop na haar kamer toe. 'n Paar sekondes later kom sy uit met 'n lapsak in haar hand. Sy kom sit aan die tafel waar ek sit, terwyl Thomas en sy pa in die kombuis is. Amy haal popklere uit die sak... **Amy:** *Julle dink dis Barbie-klere, maar dit is nie.* **Thomas:** *Dis popklere, Barbie-klere.* **Amy:** *Dis nie Barbie-klere nie, dis 'n Bratz-pop!* Amy kyk geïrriteerd na Thomas wat by die kombuistoonbank sit en na haar kyk. **Amy:** *Dommie, haar naam is Bratz en dis dit. Jy gaan nie met haar speel nie. Jy mag met my Barbie-poppe speel, nié met dié*	Attention seeking behaviour Self-concept Low on Reflective Functioning (RF) Humour - **emotion regulation** Self-expression Low on **Reflective Functioning (RF)** **Emotion Regulation** **RF** **ADHD** - constantly busy Attention seeking behaviour Constantly busy **ADHD** Immature response Emotional behaviour - not age appropriate Immature response

een nie. Sy is mýne, mýne, mýne!!	
Thomas: *Ek gaan jou kop breek, of jou slaan.*	
Amy: *Só!*	
Amy steek haar tong vir haar broer uit.	
Amy: *Jy kan my 'n blou oog gee...blah!!*	
Thomas: *So what!*	
Amy: *Bly stil!*	
Thomas: *So what!*	Immature
Amy: *Bly stil!*	
Thomas: *So what!*	
Amy: *Bly stil!*	
Thomas: *So what!*	
Amy: *Bly stil!*	
Thomas: *Ek gaan jou met my lepel deur die gesig klap.*	**Emotion regulation**
Amy: *So what, dan is ek vol pap.*	
Pa kom uit sy kamer en loop na die kombuisarea toe.	
Thomas: *Pappa, Amy sê ek mag nie met haar goed speel nie en ek mag.*	
Pa: *Maar seun, mag sy met al jou goed speel?*	
Thomas: *Sy mag met my een karretjie speel.*	**Attachment Behaviour** Greeting behaviour: No approach
Pa: *So, dan kan jy nou nie met daardie pop van Sussa speel nie.*	
Terwyl pa en Thomas gesels, praat Amy met haarself en verduidelik hoe duur haar Bratzpop is (R400). Pa stap nader na Amy en kom kyk na haar pop.	**Emotion regulation**
Pa: *Sjoe, haar voete kan af! Oe, en sy het selfs 'n pantie aan!*	
Mens hoor hoe ma buite die huis parkeer. Amy speel voort met haar pop.	Physical, affectionate contact
Pa: *Hier's mense!*	
Amy kyk net na haar poppe en reageer nie op wat haar pa gesê het nie. Pa loop buite toe, Thomas eet sy pap by die kombuistoonbank. Ma kom ingestap en loop direk na Amy toe. Amy kyk op toe haar ma langs haar staan.	Reunion Behaviour - non-approach **Attachment Behaviour**
Amy: *Hallo, mamma.*	

Ma: *Hallo, my skat.* Ma soen haar op die mond. Ma loop en groet vir Thomas by die kombuis. Amy speel met haar pop, kyk na hom en sê: **Amy:** *Pappa het iets om vir mamma te vertel, ietsie simpel.* Amy wys na haar seerplek op haar bene. **Ma:** *My kind, het jy geval?* Amy kyk na haar pop, knik net haar kop en glimlag onoortuigend. **Ma:** *Darem lag jy daaroor!* Ma lag. **Amy:** *Ek het by die trappe afgerol.* **Ma:** *Saam met Ester?* **Amy:** *Ja* **Pa:** *Ja, daar het net 'n klomp stene oorgebly. Sy het die trappe stukkend geval.* Ma loop na pa wat naby die rekenaar staan en gesels oor die dag se verrigtinge. **Amy** (selfspraak)**:** *Domkop! Is nie! Ek het nie die trappe gebreek nie!* Amy loop en tel 'n papiertjie op, waarop haar naam staan. Sy teken op die agterkant 'n prentjie van die seerplek op haar knie, omdat die pleister die wond toe maak en haar ma dit dus nie kan sien nie. Sy lag geforseerd en sê: **Amy:** *As julle my nie glo nie, dis hoe dit lyk!* Niemand kyk na die prentjie wat sy geteken het nie. Pa is op pad uit na 'n voorlegging. Hy loop na Amy toe om haar te groet. Sy kyk op na hom. **Amy:** *Tata, Pappa* **Amy:** *Tata, Sussa* Soen op mond. Ma vra vir die kinders waarvoor hulle lus is om te eet. Thomas deel in die gesprek en vra of hy rys kan kry, nie broccoli nie. Amy praat met haarself oor haar Bratz-pop en ander speelgoed. **Ma:** *Julle moet eintlik nou gaan bad...die son skyn nog lekker*	Face-to-face interaction **Attachment Behaviour** Reunion behaviour **Attachment Behaviour** **Emotion regulation** Disregard/downplay emotional experience Inaccurate response to Amy's emotional display Low on **RF** Humour - **emotion regulation** Inappropriate language Attention seeking behaviour **Emotion regulation** Attention seeking Greeting behaviour **Attachment Behaviour**

buite. **Thomas:** *Ja!* Amy skud haar kop. **Amy:** *Ek wil nie gaan bad nie. Ek wil nie my knie natmaak nie.* **Ma:** *Ag Sussa, jy moet een of ander tyd hom natmaak, of jy kan jou knie bo water hou.* Ma loop badkamer toe om water in die bad te tap. Thomas volg haar, trek sy klere uit en kom kaal uit badkamer gehardloop. Amy speel met haar pop en praat met haarself oor hoe sy haar knie gaan was. **Ma:** *Kom, Sussa!* Amy bly by die tafel sit. **Amy** (selfspraak)**:** *Boetie beter nie my pleister natmaak nie, want dan gaan ek blou moord skree! OK, here I go!* Amy verduidelik stapsgewys hoe sy in die badkamer te werk sal gaan en lag geforseerd terwyl sy badkamer toe loop.	Instruction **Emotion regulation** Emotional experience Low on **RF** **Emotion regulation** - self-talk **Emotion regulation** **ADHD** **Emotion regulation**

Aim: To observe reunion behaviour upon the mother's return from work	
At arrival: Amy and Thomas are standing outside the house, awaiting my arrival. Thomas shows me that he is wearing a short-sleeved T-shirt and shorts. Amy lifts her three-quarter trousers and points at a wound on her knee. There is a plaster on her knee and scratches on her lower leg. Amy starts telling me that she fell down the stairs earlier the afternoon. She does not make eye contact while telling the story and dramatises her narrative.	
Inside the house: Observation starts	
Father is working on a presentation on his computer in the dining area. Amy comes and sits at the table where I am. She has a bag with her. Thomas comes and sits on the same chair as she.	
Amy: *Nee Thomas!* (No Thomas!)	Sibling Interaction
Thomas: *Ek was eerste hier!* (I was here first!)	
Amy: *Nee, ek gaan jou slaan!* (No, I am going to hit you!)	
Thomas: *Kom ons sit saam...* (Let's sit together...)	
Amy accepts and continues with the bag in her hand. Thomas gets up and walks over to his father, who is now playing guitar. Amy opens the bag and takes out a tube of cream. She consistently talks to herself about her injury and how serious it is. Now she rubs cream onto her scratches. (Self-talk to follow)	Self-care Self-soothe **Emotion regulation**
Amy: *Ouch! It burns! The scratches feel coarse. Today was really a bad day - ouch! - because I fell. Now it's going to feel better with the cream. Ouch! Sho! Now there's another scratch. Look at that, now it has started bleeding because of the cream, but actually the cream only cleans it. It's hand cream for the scratches. Ouch! Ouch!*	Self-talk **Emotion regulation** **Emotion regulation**
Amy faces me while talking to herself.	Self-concept Emotional display - expressing her feelings to herself
Amy: *I have fallen so many times before...almost broke myself. I can never break the stairs as Daddy said.*	
She faces me again.	
Amy: *No, my goodness! Now all my scars are bleeding, and*	Attention seeking

everyone can see it. I hate it.	behaviour Self-concept
Amy sits, rubs all her scars and sighs loudly.	
Amy: *Now I simply have to sit here in this pain. Maybe I should go and lie down on the couch or something. My trousers are not dirty, despite the fact that I rolled down the stairs...ouch! Now all the children are going to ask me what I did to my knee. All it is, is that I missed one step!*	Low on Reflective Functioning (RF) Humour - **emotion regulation** Self-expression
Amy stands up and walks in her father's direction. Father gets up and walks to the kitchen.	
Pa: *Ah, Sis, are you going to make it? You just have to warn us in time so we can use you as BBQ meat while you are still fresh.*	
Father smiles, but Amy does not make eye contact.	Low on **Reflective Functioning (RF)** **Emotion regulation -** humour/sarcasm
Amy: *Are you crazy!!?*	
Amy goes and sits on the chair and sighs loudly.	
Amy: *I am tired.*	
Father does not respond. He is making porridge for Thomas.	**Emotion Regulation**
Pa: *Sis, would you also like some porridge?*	**RF**
Amy faces her father.	
Amy: *No, thank you, Daddy…*	
Amy walks to the piano and plays a few notes. Then she gets up and walks to her room. A few seconds later, she comes out of her room with a bag in hand. She comes over and sits down at the table from where I am observing. Her father and Thomas are in the kitchen. Amy takes doll clothes out of the bag.	**ADHD** - constantly busy Attention seeking behaviour
Amy: *You think it is Barbie clothes, but it isn't…*	
Thomas: *It's dolls clothes, Barbie clothes.*	Constantly busy **ADHD**
Amy: *It's not Barbie clothes, it's a Bratz doll!*	
Amy looks annoyed and faces Thomas, who is sitting at the kitchen counter.	Immature response Emotional behaviour - not age appropriate
Amy: *Silly, her name is Bratz and that's it. You are not going to play with her. You are allowed to play with my Barbie dolls, not with this one. She is mine, mine, mine!!*	
Thomas: *I am going to break your head or hit you.*	Immature response

Amy: *So!* Amy sticks out her tongue at her brother. **Amy:** *You can give me a blue eye...blah!!* **Thomas:** *So what!* **Amy:** *Shut up!* **Thomas:** *So what!* **Amy:** *Shut up!* **Thomas:** *So what!* **Amy:** *Shut up!* **Thomas:** *So what!* **Amy:** *Shut up!* **Thomas:** *I am going to hit you in the face with the spoon.* **Amy:** *So what Then I am covered in porridge!* Father comes from his room and walks over to the kitchen area. **Thomas:** *Daddy, Amy says I am not allowed to play with her things.* **Pa:** *Bu,t my son, is she allowed to play with all your toys?* **Thomas:** *She is allowed to play with one of my cars.* **Pa:** *So, then you cannot play with that specific doll of hers.* While her father talks to Thomas, Amy talks to herself and explains how expensive her Bratz doll is (R400). Her father approaches her and looks at her doll. **Pa:** *Wow, her feet can be taken off! Oh, and she is even wearing panties!* A car is parking outside - it is their mother. Amy continues to play with her doll. **Pa:** *There are people outside!!* Amy faces her dolls and does not respond to what her father has said. Her father goes outside to meet their mother and Thomas eats his porridge at the kitchen counter. Mother enters and walks straight to Amy. Amy faces her mother when she is standing next to Amy. **Amy:** *Hello, Mommy.* **Ma:** *Hello, my darling.*	Immature **Emotion regulation** **Emotion regulation** Reunion Behaviour - non-approach **Attachment Behaviour** Face-to-face interaction

Mother kisses Amy on the mouth. Mother walks over to the kitchen counter to greet Thomas. Amy plays with her doll and faces the doll when saying:	**Attachment Behaviour**
Amy: *Daddy has something to tell Mommy, something silly.*	
Amy points at the scratches on her knee.	Reunion behaviour **Attachment Behaviour**
Ma: *My child, did you fall?*	
Amy faces her doll, nods her head and gives a forced smile.	
Ma: *At least you laugh about it!*	
Mother laughs.	**Emotion regulation** Disregard/downplay emotional experience
Amy: *I rolled down the stairs....*	
Ma: *With Esther?*	
Amy: *Yes*	
Pa: *Yes, there was only a pile of bricks left. She broke the stairs with her fall.*	Inaccurate response to Amy's emotional display Low on **RF**
Mother approaches Father at the computer and they talk about their days.	
Amy (self-talk)**:** *Silly!! It's not true. I did not break the stairs!*	
Amy walks and picks up a small piece of paper on which her name is written. She draws a picture of her scar on the back of the piece of paper, because the plaster is covering the scar and her mother can't see it. She gives a forced laugh and says:	Humour - **emotion regulation**
Amy: *If you don't believe me, this is what it looks like!*	Inappropriate language
Nobody looks at the picture she has drawn.	
Father is on his way out to a presentation. He walks over to greet Amy. She faces her father.	Attention seeking behaviour **Emotion regulation** Attention seeking
Amy: *Bye-bye, Daddy*	
Amy: *Bye-bye, Sis*	
He gives her a kiss.	
As Father leaves the house, Mother asks the children what they would like to have for dinner. Thomas responds by asking for rice, not broccoli. Amy talks to herself about her Bratz doll and other toys.	Greeting behaviour **Attachment Behaviour**
Ma: *You children actually need to go and bath now, while the*	

sun is still shining. **Thomas:** *Yes!* Amy shakes her head from side to side. **Amy:** *I don't want to have a bath. I don't want my knee to get wet.* **Ma:** *Ah, Sis, your knee is going to get wet some other time anyway, or you can keep it above the water.* Mother goes to the bathroom to run the bath. Thomas follows her, takes off his clothes and comes running from the bathroom. Amy plays with her doll and talks to herself about the way she is going to wash herself without her knee getting wet. **Ma:** *Come, Sis!* Amy remains at the table. **Amy** (self-talk)**:** *My brother better not wet my plaster because then I will scream like crazy! OK, here I go!* Amy talks loudly, explaining how she is going to wash herself. Amy gives a forced laugh.	Instruction **Emotion regulation** Emotional experience Low on **RF** **Emotion regulation** - self-talk **Emotion regulation** **ADHD** **Emotion regulation**

ADDENDUM C

ETHICAL CLEARANCE

Researcher:	Ms A van Huyssteen
Research project:	Exploring the parent-child attachment pattern of a child with attention deficit hyperactivity disorder (ADHD).
Nature of research project:	Master's research study within the Department of Educational Psychology of the University of Stellenbosch
Supervisor:	Mrs Charmaine Louw (Lecturer: Department of Educational Psychology)
Co-supervisor:	Prof. Rona Newmark (Lecturer: Department of Educational Psychology)
Reference number:	124/2008
Date:	9 October 2008

The application for ethical clearance of Ms Van Huyssteen was considered by the Ethics Committee on 9 October 2008 in terms of guidelines prescribed by Council on 18 September 1996 and laid down in the SU policy framework - with the purpose of ascertaining whether there are any ethical risks associated with the proposed research project of which the researcher should be aware or, alternatively, whether the ethical risks are of such a nature that the research cannot continue.

The Ethics Committee received the following documentation as part of the resubmission for ethical clearance:

- A duly signed application for ethical clearance;
- An information and consent form about the research that was already signed by the adults participants in the research (which is in this case one family);
- A statement about the observation technique: Event sampling;
- An observation sheet and Observation timetable;
- The schedule for a semi-structured interview;
- Four questionnaires;
- The research proposal.

In this study, a single family with a ten-your old child with ADHD will serve as the unit of analysis, with structured observation as the main sampling technique. Semi-structured interviews with the parents will also be used, in which they will be asked to complete a number of questionnaires.

Consideration

The Ethics Committee is satisfied that there are no major ethical risks involved in this study, and that the researcher and her supervisors are well aware of the requirements stated in paragraph 2[3] of the Guidelines on the Ethical aspects of Scientific Research regarding informed consent, voluntary participation, and confidentiality of personal information – in so far as this is applicable to this study.

While the Ethics Committee acknowledges that it was done in good faith, it should be pointed out, however, that it is not good ethical practice to get permission from research subjects before ethical clearance for the research has been obtained. Such premature permission undermines the integrity of the process of ethical clearance, and exposes the research subjects, the researcher, as well as the University to unacceptable ethical risks.

However, since the informed consent form in this case was complete and without problems, the permission that was obtained from research subjects will be condoned this time round. This condonation does not extend to any other cases of soliciting permission prematurely.

Recommendation

On the basis of the information made available to it, the Ethics Committee cannot foresee any reasons why the proposed research may not continue, provided:

a. That the researcher will remain within the procedures and protocols indicated in the proposal.

b. That the researcher will remain within the parameters of any applicable national legislation, institutional guidelines and scientific standards relevant to the specific field of research.

c. That the research may have to be submitted again for ethical clearance if there is substantial departure from the existing proposal.

d. That the researcher takes note of the ethical issues around soliciting premature consent from research subjects.

On behalf of the Ethics Committee 9 October 2008

Johan Hattingh, Mustaqeem de Gama, Callie Theron, Ian van der Waag, Elmarie Terblanche, Clint le Bruyns

ADDENDUM D

STELLENBOSCH UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

Exploring the parent-child attachment pattern of a child with Attention Deficit Hyperactivity Disorder (ADHD).

You are asked to participate in a research study conducted by Almarié van Huyssteen, from the Department of Educational Psychology at Stellenbosch University. The results of this study will be contributed to a Masters in Educational Psychology's thesis. You were selected as a possible participant in this study because you have a child with ADHD.

1. PURPOSE OF THE STUDY

The aim of this study is to explore the nature of the parent-child attachment of a child with ADHD. This study also aims to explore, using insights from the literature study, whether the parent-child relationship can affect the functioning of a child with ADHD.

2. PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

1. One semi-structured **interview** with you and your child with ADHD. The interview will last for approximately an hour. The purpose of this interview is to gather background information on your child's development and information on family background. We will also discuss and clarify the procedure of the research to follow.

2. **Observations** - these will take place over a period of 5 weeks. Each observation will last for an hour and will only take place on weekdays at your home in Stellenbosch.

Observation schedule: (Please see separate sheet)
Mondays: Evening (19:00-20:00)
Tuesdays: Morning (07:00-08:00)
Wednesdays: Late afternoon/early evening (17:30-18:30)
Thursdays: Evening (19:00-20:00)
Fridays: Morning (07:00-08:00)

3. POTENTIAL RISKS AND DISCOMFORTS

The observations will be done in your home during various times of day. These times might be inconvenient and the visits might feel slightly intrusive.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

The process and information gathered during the study will determine whether there are any benefits for you as participant. It might happen that you don't significantly benefit from the process or results of the study. On the other hand, one might be able to shed light on the parent-child relationship and attachment of a child with ADHD.

5. PAYMENT FOR PARTICIPATION

You will not be paid for participating in this study.

6. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of coding all the information gathered from observations. The names of the participants will not be known. The information will only be viewed, interpreted and read by me as researcher, my supervisor Mrs C Louw (Educational Psychologist at the Unit for Educational Psychology at Stellenbosch University), my co-supervisor Prof R Newmark (Head of Unit for Educational Psychology at Stellenbosch University) and an external psychologist to be contracted for supervision Mrs E Frank (Educational Psychologist).

7. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact:

Ms Almarié van Huyssteen: Researcher
E-mail: almarievanh@gmail.com
Cell: 079 490 5818

Mrs Charmaine Louw: Supervisor (Lecturer, Department of Educational Psychology, University of Stellenbosch and Educational Psychologist)
E-mail: cl1@sun.ac.za
Tel: 021 808 2229

Prof R Newmark: Co-supervisor (Lecturer, Department of Educational Psychology, University of Stellenbosch and Educational Psychologist)
E-mail: rnew@sun.ac.za
Tel: 021 808 2229

Mrs Elzan Frank: External consultant (Educational Psychologist)
E-mail: elzanfrank@gmail.com

9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Maryke Hunter-Hüsselmann (021 808 4623) at the Unit for Research Development.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was described to us, the participants by Almarié van Huyssteen in Afrikaans and we were in command of this language. We were given the opportunity to ask questions and these questions were answered to our satisfaction.

We hereby consent voluntarily to participate in this study. We have been given a copy of this form.

____

Name of Subject/Participant

____

Name of Legal Representative (if applicable)

______________________________________ _____________

Signature of Subject/Participant or Legal Representative **Date**

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to Mr and Mrs XXX. They were encouraged and given ample time to ask me any questions. This conversation was conducted in Afrikaans and no translator was used.

______________________________________ _____________

Signature of Investigator **Date**

ADDENDUM E

CODING SYSTEM

THEME	CODE
ADHD Characteristics (A)	• Excessive talking • Constantly busy • Impulsivity • Routine/structure • Heightened emotional display • Learning difficulties
Emotion Regulation (B)	• Display of emotion (e.g. anger, crying, laughing) • Withdrawal (when in distress; non-approach to parents) • Self-talk (non-stop) • Self-soothe (physical and/or emotional)
Attachment Behaviour (C)	• Face-to-face interaction • Affectionate contact • Greeting behaviour • Reunion behaviour • Verbal and non-verbal interaction • Parents' response to emotional display
Insecurity (an overarching theme)	• Sibling interaction • Peer relationships (lack thereof) • Self-concept • Constant reassurance • Content of self-talk - attention seeking • General behaviour - attention seeking

ADDENDUM F

This material is not a substitute for training in AAI administration procedure. It is provided because it is important for consumers of AAI research to have easy access to the interview questions. Without them, it is difficult to evaluate published research. Seeing the full interview protocol can also help consumers of AAI based research appreciate the level of interview information and detail underlying AAI scores. It can also help them make important decisions about the adequacy of procedures in various reports they may encounter.

The authors of the AAI make the scoring manual available only in conjunction with their training courses. Researchers interested in understanding more about the logic of scoring the AAI can however see the scoring manual for Crowell & Owens' Current Relationship Interview (CRI) which is available in full on this site. The logic and procedures for scoring the CRI closely parallel those for the AAI. The primary difference is that the AAI focuses on relationships to parents and the CRI on relationships to adult attachment figures. At present this is the only detailed source of insights into the criteria for scoring the AAI available to those who do not take the training course.

Do not reproduce this material without permission of the author.

EW

ADULT ATTACHMENT INTERVIEW PROTOCOL

Mary B. Main

Introduction
I'm going to be interviewing you about your childhood experiences, and how those experiences may have affected your adult personality. So, I'd like to ask you about your early relationship with your family, and what you think about the way it might have affected you. We'll focus mainly on your childhood, but later we'll get on to your adolescence and then to what's going on right now. This interview often takes about an hour, but it could be anywhere between 45 minutes and an hour and a half.

1. Could you start by helping me get oriented to your early family situation, and where you lived and so on? If you could tell me where you were born, whether you moved around much, what your family did at various times for a living?

This question is used for orientation to the family constellation, and for warm-up purposes. The research participant must not be allowed to begin discussing the quality of relationships here, so the "atmosphere" set by the interviewer is that a brief list of "who, when" is being sought, and *no more than two or three minutes* at most should be used for this question. The atmosphere is one of briefly collecting demographics.

In the case of participants raised by several persons, and not necessarily raised by the biological or adoptive parents (frequent in high-risk samples), the opening question above may be *"Who would you say raised you?'*: The interviewer will use this to help determine who should be considered the primary attachment figure (s) on whom the interview will focus.

> *Did you see much of your grandparents when you were little? If* participant indicates that grandparents died during his or her own lifetime, ask the participant's age at the time of each loss. If there were grandparents whom she or he never met, ask *whether this (these) grandparents) had died before she was born.* If yes, *continue as* follows: *Your mother's father died before you were born? How old was she at the time, do you know?* In a casual and *spontaneous way,* inviting only a very brief reply, the interviewer then asks, *Did she tell you much about this grandfather?*
>
> *Did you have brothers and sisters living in the house, or anybody besides your parents? Are they living nearby now or do they live elsewhere?*

2. I'd like you to try to describe your relationship with your parents as a young child if you could start from as far back as you can remember?

Encourage participants to try to begin by remembering very early. Many say they cannot remember early childhood, but you should shape the questions such that they focus at first around age five or earlier, and gently remind the research participant from time to time that if possible, you would like her to think back to this age period.

Admittedly, this is leaping right into it, and the participant may stumble. If necessary, indicate in some way that experiencing some difficulty in initially attempting to respond to this question is natural, but indicate by some silence that you would nonetheless like the participant to attempt a general description.

3. Now I'd like to ask you to choose five adjectives or words that reflect your relationship with your mother starting from as far back as you can remember in early childhood--as early as you can go, but say, age 5 to 12 is fine. I know this may take a bit of time, so go ahead and think for a minute...then I'd like to ask you why you chose them. I'll write each one down as you give them to me.

Not all participants will be able to think of five adjectives right away. Be sure to make the word *relationship* clear enough to be heard in this sentence. Some participants do use "relationship" adjectives to describe the parent, but some just describe the parent herself --e.g., "pretty"... "efficient manager"--as though they had only been asked to "pick adjectives to describe your mother". These individual differences are of interest only if the participant has heard the phrase, "that reflect your childhood *relationship"* with your mother. The word should be spoken clearly, but with only slight stress or emphasis.

Some participants will not know what you mean by the term *adjectives,* which is why we phrase the question as "adjectives or words". If the participant has further questions, you can explain, "just words or phrases that would describe or tell me about your relationship with your (mother) during childhood".

The probes provided below are intended to follow the entire set of adjectives, and *the interviewer must not begin to probe until the full set of adjectives has been given.* Be patient in waiting for the participant to arrive at five adjectives, and be encouraging. This task has proven very helpful both in starting an interview, and in later interview analysis. It helps some participants to continue to focus upon the relationship when otherwise they would not be able to come up with spontaneous comments.

If for some reason a subject does not understand what a memory is, you might suggest they think of it like an image they have in their mind similar to a videotape of something which happened when they were young. Make certain that the subject really does not understand the question first, however. The great majority who may seem not to understand it are simply unable to provide a memory or incident.

The participant's ability (or inability) to provide both an overview of the relationship and specific memories supporting that overview forms one of the most critical bases of interview analysis. For this reason it is important for the interviewer to press enough in the effort to obtain the five "overview" adjectives that if a full set is not provided, she or he is reasonably certain that they truly cannot be given.

The interviewer's manner should indicate that waiting as long as a minute is not unusual, and that trying to come up with these words can be difficult. Often, participants indicate by their non-verbal behavior that they are actively thinking through or refining their choices. In this case an interested silence is warranted. Don't, however, repeatedly leave the participant in embarrassing silences for very long periods. Some research participants may tell you that this is a hard job, and you can readily acknowledge this. If the participant has extreme difficulty coming up with more than one or two words or adjectives, after a period of two to three minutes of supported ttempts ("Mm... I know it can be hard ...this is a pretty tough question... Just take a little ore time"), then say something like "Well, that's fine. Thank you, we'll just go with he ones you've already given me." The interviewer's tone here should make it clear that the participant's response is perfectly acceptable and not uncommon.

Okay, now let me go through some more questions about your description of your childhood relationship with your mother. You say your relationships with her was (you used the phrase) Are there any memories or incidents that come to mind with respect to (word)

The same questions will be asked *separately* for *each* adjective in series. Having gone through the probes which follow upon this question (below), the interviewer moves on to seek illustration for each of the succeeding adjectives in turn:

You described your childhood relationship with your mother as (or, `your second acyective was", or "the second word you used was"). Can you think of a memory or an incident that would illustrate why you chose to describe the relationship?

The interviewer continues, as naturally as possible, through each phrase or adjective chosen by the participant, until all five adjectives or phrases are covered. A specific supportive memory or expansion and illustration is requested for each of the adjectives, separately. In terms of time to answer, this is usually the longest question. Obviously, some adjectives chosen may be almost identical, e.g., "loving ... caring". Nonetheless, if they have been given to you as separate descriptors, you must treat each separately, and ask for memories for each.

While participants sometimes readily provide a well-elaborated incident for a particular word they have chosen, at other times they may fall silent; or "illustrate" one adjective with another ("loving ...um, because she was generous"); or describe what usually happened--i.e., offer a "scripted" memory--rather than describing specific incidents. There are a set series of responses available for these contingencies, and it is vital to memorize them.

If the participant is silent, the interviewer waits an appropriate length of time. If the participant indicates non-verbally that she or he is actively thinking , remembering or simply attempting to come up with a particularly telling illustration, the interviewer maintains an interested silence. If the silence continues and seems to indicate that the participant is feeling stumped, the interviewer says something like, "well, just take another minute and see if anything comes to mind". If following another waiting period the participant still cannot respond to the question, treat this in a casual, matter of fact manner and say "well, that's fine, let's take the next one, then". Most participants do come up with a response eventually, however, and the nature of the response then determines which of the follow-up probes are utilize

If the participant re-defines an affective with a second adjective as, "Loving ---she was generous", the interviewer probes by repeating the original adjective (loving) rather than permitting the participant to lead them to use the second one (generous). In other words, the interviewer in this case will say, "Well, can you think of a specific memory that would illustrate how your relationship was loving?" The interviewer should be careful, however, not to be too explicit in their intention to lead the participant back to their original word usage. If the speaker continues to discuss "generous" after having been probed about loving once more, this violation of the discourse task is meaningful and must be allowed. As above, the nature of the participant's response determines which follow-up probes are utilized.

If a spgcific and well-elaborated incident is given, the participant has responded satisfactorily to the task, and the interviewer should indicate that she or he understands that. However, the interviewer should briefly show continuing interest by asking whether the participant can think of a second incident.

- If one specific but poorly elaborated incident is given, the interviewer probes for a second. Again, the interviewer does this in a manner emphasizing his or her own interest.

- If as a first response the participant gives a "scripted" or "general" memo[y, as "Loving. She always took us to the park and on picnics. She was really good on holidays" or "Loving. He taught me to ride a bike"--the interviewer says, "Well, that's a good general description, but I'm wondering if there was a particular time that happened, that made you think about it as loving?"