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A study exploring a sibling's perception of the impact a sibling diagnosed with ADHD has within the family system

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TITLE: A STUDY EXPLORING A SIBLING'S PERCEPTION OF THE IMPACT A SIBLING DIAGNOSED WITH ADHD HAS WITHIN THE FAMILY SYSTEM

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Declaration:

A research project submitted in partial fulfillment of the requirements for the degree of MA Community-based Counselling Psychology, in the Faculty of Humanities, University of the Witwatersrand, Johannesburg, 30 June 2015.

I declare that this research project is my own, unaided work. It has not been submitted before for any other degree or examination at this or any other university.

_____ _____

Signature Date

ABSTRACT

The primary focus of the research was to explore a siblings' perceptions of the impact a sibling diagnosed with ADHD has on the family system within a South African context. The researcher specifically investigated the participants' experience whilst residing with a sibling with a mental disorder such as ADHD. The impact this had on the family's harmony, resources and interrelationships, was illuminated. The theoretical framework encompassed a discussion of Bronfenbrenner's ecological model. It also includes an overview of Ecosystems Theory, with a specific focus on systemic boundaries and feedback loops.

This study is exploratory and qualitative, focusing on the participants' subjective experiences which were gathered through individual, face to face interviews. Participants were selected by the means of convenience sampling and all ethical considerations such as confidentiality and informed consent were taken into account.

The findings of the research suggested many participants had similar experiences in terms of living with a sibling with ADHD. Some participants experienced a significant difference in the way they were parented as opposed to their ADHD sibling, while others noticed a difference, but did not report it as being noticeably dissimilar. Many participants found that their role as a sibling changed and they often had to take on a more mature and nurturing role. It was established that having a child with ADHD in the home impacted not only on the child as an individual, but on the whole family system. The findings of the research are therefore that the diagnosed ADHD sibling does indeed have an impact on the family system and these impacts are consistent with those reported in the literature.

Keywords: Attention Deficit Hyperactivity Disorder (ADHD), Sibling Accounts, Parenting Differences.

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"If God gives you the desire and ability, He will give you the power"

(Author unknown)

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CHAPTER 1:
INTRODUCTION



"We may not have it all together, but together we have it all."- Author unknown

1.1. Orientation and statement of problem

According to Bronfenbrenner (1994) a family system is a social and biological composition made up of a set of people related by blood or intention. Bronfenbrenner (1994) further asserts that to understand the family, it is necessary to look at it in its entirety – not just at one or some parts. In terms of Bronfenbrenner's (1994) systems theory, namely the ecosystemic model, the family can be viewed as a dynamic, interactive unit that continually evolves in structure and function and it is necessary to take this into consideration (Bronfenbrenner, 1994).

Additionally, according to other theorists such as (Berk, 2009) in a family system, bidirectional influences exist whereby family members mutually influence one another. As the boundaries and inter-relational effects are porous, it is surmised, in this research, that individuals' perceptions of specific aspects, such as parental interactions, vary according to their experiences of parenting styles, family dynamics, socio-economic status, siblings and any medical history. Each of the construed concepts will be expanded on in the next sections.

Research by Belsky (1984) and Bornstein (2001) has shown that across childhood, parenting that is sensitively attuned to children's capabilities and to the developmental tasks they face, promote a variety of highly valued outcomes. This includes, but is not limited to: emotional security, behavioural independence, social competence and intellectual achievement. Although we support this assertion, there seems to be a lacuna in the literature related to an important aspect namely ADHD and its impact on siblings' experiences and the impact a

child diagnosed with Attention-deficit/hyperactivity disorder (ADHD) has on the family's interrelationships. An interrelationship can be defined as a close association or acquaintance between two or more people that might range in length from short to lasting (Bronfenbrenner, 1994). In this particular study, the focus is on exploring young adults' perceptions of the impact a brother or sister diagnosed with ADHD had within their family system.

This researcher acknowledges that experiences cannot be assumed to be equal due to the vastly different contexts impacting on the participants' experiences. However, the gaps in this regard therefore indicate that an understanding of siblings' experiences of living with a sibling with ADHD in the South African context is warranted. Furthermore, attempts to optimise the participants' experiences can only be made with a full understanding of their relevant contexts. Therefore, this study aims to provide such an ecological understanding of current experiences, possible areas of focus for growth and expansion of services, and a possible basis for further research.

1.2 Research questions

The main research question is:

1. What are the non-ADHD siblings' perceptions of the impact of a sibling diagnosed with ADHD on the family system?

The following sub-questions flow from this overarching question:

1.1 In the participant's experience, how did residing with a sibling with a mental disorder such as ADHD impact on the family's harmony, resources and interrelationships?

1.2 What are the participants' perceptions of the relationship they have with the caregiver(s) and the sibling?

1.3 What did the participant observe regarding parenting differences in the home while living with a sibling with ADHD?

1.3. Rationale

The first aspect this research report will address is the facet of parenting. Parenting, like most dimensions of human functioning, might be influenced by lasting characteristics of the individual, characteristics that are, at least in part, an outcome of an individual's developmental history or their relationships with their caregivers (Belsky, 1984; Bornstein, 2001; Bornstein & Bradley, 2003). Therefore the way in which a parent practices his/her

parenting skills or techniques could be due to the way in which he/she was raised (Bornstein & Bradley, 2003). The way that people are parented is therefore pertinent because this could afterwards affect the relationship the individuals have with their own children. In the next section, the afore-mentioned will be elaborated on by discussing the family system from an ecosystemic perspective.

From an ecosystemic perspective, the child's own attributes, personality and capacities also influence the parenting dynamic (Bronfenbrenner, 1979). Moreover, although both parent and child contribute to differences in parenting, there also needs to be some form of consideration of the context of the parent-child relation (Belsky, 1984; Bornstein, 2002). In this particular research context, the young adult is living in a home with a diagnosed ADHD sibling. The researcher explored the non-ADHD sibling's perceptions of parenting interactions with the sibling and parenting interactions with the non-affected sibling.

It is hypothesised that the mental disorder labelled "Attention-deficit/hyperactivity disorder" and the resultant family dynamics, parenting styles and sibling relationships all play a vital role in the way in which the non- ADHD sibling, in early adulthood, might perceive parenting interactions with him 1or herself. This could equally influence their perceptions of whether it was any different to the interactions that the ADHD sibling experienced with their caregivers. Next, the mental disorder of Attention-deficit / hyperactivity will be investigated.

Attention -deficit/ hyperactivity disorder (ADHD*)* is a "neurobiological condition of the brain that affects a person's ability to sustain attention and portrays higher levels of impulsivity in a child or adolescent than expected for that age and developmental stage" (Sadock & Sadock, 2007, p. 1206). Even though the manifestation of these behaviours is sufficient to cause impairment in major life activities such as schooling, social skills and family interaction, there is a limited amount of published research on how a child with ADHD affects the family ecosystem. It became evident through an in-depth literature search that research has seldom been documented and there is a modest understanding of this topic (Anastopolous, Schatz & Sommer, 2009). This then forms the rationale for conducting this study, i.e. to gain greater insight into the young adult's perceptions relating to whether the ADHD sibling had an impact on the family's harmony, resources and interrelationships.

1.4 Theoretical Framework

The theoretical framework encompasses a discussion of Bronfenbrenner's ecological model, which describes the interplay between the micro, meso, exo, macro and chrono systems. It also includes an overview of Ecosystems Theory, with a specific focus on system boundaries and feedback loops. Reference will be made to the above in the discussion chapter of the report as a means of focusing on the entire ecological system.

1.5 Structure of the study

The rest of this research report is organised into the following chapters:

Chapter 2 comprises a conceptual overview and review of the existing empirical literature concerning ADHD and the non-ADHD sibling's perceptions of the impact the ADHD sibling might have on the family.

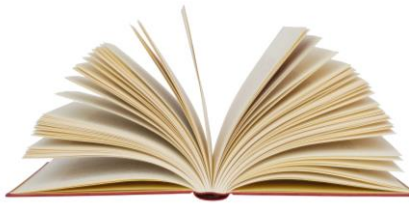
Chapter 3 is an outline of the theoretical framework, namely Bronfenbrenner's ecological model, the medical model and Ecosystems theory, which facilitates an understanding of ADHD and the impact it might have on the family system.

Chapter 4 contains an overview of the methodology involved in this study, namely an exploratory, qualitative approach with the use of individual face-to-face semi-structured interviews. It also consists of detail regarding the way in which ethical concerns were considered and how the data will be stored to ensure confidentiality.

In **Chapter 5** the findings of the study are presented, followed by a discussion and interpretation of the findings, with supporting literature to reinforce the research questions following in **Chapter 6**.

The last chapter, **Chapter 7**, includes an exploration of the strengths and limitations of this study, as well as recommendations and the final conclusion.

CHAPTER 2
LITERATURE REVIEW



"An investment in knowledge pays the best interest"- Benjamin Franklin

2. 1 Introduction

In this chapter the conceptual and empirical literature about the perception of the impact a fraternal/sibling diagnosed with ADHD has on the family system is reviewed. The literature regarding the research that is pertinent to the topic has been segmented and placed under appropriate headings. The topics constitute the following, namely: the medical model and ADHD, the impact of ADHD at different stages of the diagnosed child's life, ADHD and executive functions, parenting, family dynamics, parenting styles, parenting in adults with ADHD, sibling relationships and the treatment of ADHD will also be illuminated. The introductory paragraph is an overview of the study with a focus on parenting, cultural and environmental influences, and then a clarification of the disorder will ensue.

2.2 The background to the study

Research has increasingly focused on the role of the family system, the complex relationships within families and the reciprocal influences among various family subsystems, as well as on factors that were previously mentioned (Becvar & Becvar, 2009).

Furthermore, it is important to take into consideration that parenting behaviours occur within the broader context of multiple family relationships, as well as being affected by social, economic and cultural influences (Bornstein & Bradley, 2003). A family's socio-economic status (SES) might also play a role in parenting, due to the fact that SES can change over time. Parents and children might then face shifting circumstances (less or more income) that affect the family's homeostasis (Bornstein & Bradley, 2003).

There is also a need to consider the processes occurring within families that comprise of a child with a mental disorder and the common and unique ways these processes affect both

individual family members and subsystems (Mash & Wolfe, 2010). It is thus important to consider the criteria of ADHD and the possible consequences that may arise in a family system, particularly with regard to interrelationships and harmony in the home. It is also important to investigate the way in which the non-ADHD children perceive the parental treatment towards them as opposed to their ADHD sibling.

This research is based on an ecosystemic perspective, but due to the nature of the disorder and the fact that it is medically diagnosed in the DSM-5, the medical model will also be taken into account. Some of the criteria of ADHD will be highlighted for the purposes of this study, but the focus is on the impact and context of the disorder and not the diagnosis. Further insight into the disorder is discussed later (*see appendix F).*

Current discussion of the medical model and how ADHD is viewed through this lens will be outlined first in order to situate the diagnosis and to make sense of it from this perspective.

2.3 The medical model: Attention-deficit/hyperactivity disorder:

A trend in the mental health system was towards understanding psychological issues according to a medical model (Forness & Kavale, 2001). The medical model involves viewing behavioural symptoms as organic diseases that should be treated with medical interventions. The medical model presents ADHD as a brain dysfunction to be treated with medication that changes the biology of the brain (Forness & Kavale, 2001).

Attention-deficit/hyperactivity disorder is further defined as "an attention deficit or hyperactive or impulsive display of behaviour" (Abdolahian, Far & Yousefia, 2011, p. 1666). It is one of the most common neuro-behavioural disorders affecting children, which is present from infancy and can continue into adulthood. Similarly, according to Firmin and Phillips (2009), ADHD is one of the most common and well researched mental disorders in schoolchildren and young adults, prevalent in about 3-7% of school-aged children and occurring more often in boys than in girls. A predisposition to ADHD due to gender is one of the biological tendencies associated with ADHD (Abdolahian et al., 2011) as it is suggested that ADHD is more commonly diagnosed in boys than in girls. Literature compiled by Firmin and Phillips (2009) has shown that approximately half the children presenting with ADHD will also have a comorbid disorder such as conduct disorder, oppositional defiant disorder and/or other disruptive behaviour disorders. The prevalence rates in South Africa, according

to the 2014 update, suggests that about 5% of children and adolescents are diagnosed with ADHD and about 2.5% of the adult population (Vogel, 2014). It is thus important to investigate the manifestation of conduct and behaviour dysfunction from an ecosystemic viewpoint, as well as within a biological framework. Moreover, it is imperative to note how the ADHD manifests in the child or sibling that is affected. In doing so, the family can be enabled to have a broader knowledge of what the child is experiencing at that time.

2.4 The impact of ADHD at different stages of the diagnosed child's life

Attention deficit/hyperactivity disorder (ADHD) can affect all aspects of a child's life during the different life stages. Indeed, it impacts not only the child, but also affects parents and siblings, causing disturbances in family and marital functioning (Harpin, 2005). The adverse effects of ADHD on children and their families change from the preschool years to primary school and adolescence, with fluctuating aspects of the disorder being more prominent at different stages. ADHD can persist into adulthood, causing disruptions in both the person's professional and personal life. In addition, ADHD has been associated with increased healthcare costs for patients and their family members (Harpin, 2005). This can be due to numerous reasons. Children with ADHD may require medication, extra support in their academic field as well as psychological or educational requirements.

The core difficulties in executive function seen in ADHD result in a variety of possible outcomes in later life, depending on the demands made on the individual by their environment. The variables are family and school resources, as well as age, cognitive ability and the insight of the child or young person (Harpin, 2005). An environment in which others, such as authority figures or key role players, are sensitive to the needs of an individual with ADHD and who have an awareness of the implications of the disorder, is vital (Kendall, 1999). Optimal medical and behavioural management is aimed at supporting the individual with ADHD and allowing them to achieve their full potential, while minimising any adverse effects on themselves and society as a whole (Berk, 2009; Harpin, 2005 & Kendall, 1999).

The following outline below will follow a chronological pattern; the preschool years will be outlined first, followed by the primary school years and then a review of ADHD in adolescents.

2.4.1 The preschool child

During this stage poor concentration, high levels of activity and impulsivity are frequent characteristics of normal preschool children. Consequently, a high level of supervision is the norm. Even so, children with ADHD might still stand out (Harpin, 2005). In this age group there is often unusually poor intensity of play and excessive motor restlessness (Berk, 2009). Associated difficulties such as delayed development, oppositional behaviour and poor social skills might also be present (Kieling & Rohde, 2010). If ADHD is a possibility, it is vital to offer targeted parenting advice and support. Even at this early stage, parental stress could be enormous when a child does not respond to ordinary parental requests and behavioural advice. This might have negative consequences on the rest of the family due to the frustration and time spent trying to negotiate with the ADHD child (Abdolahian et al., 2011).

2.4.2 Primary school years

During the primary school years, the child with ADHD frequently begins to be seen as being different, because his/her classmates start to develop the skills and maturity that enable them to learn successfully at school, while the ADHD child's development is comparatively delayed (Harpin, 2005). Although a sensitive teacher might be able to adapt the classroom to allow a child with ADHD to succeed, more frequently the child experiences academic failure, rejection by peers and low self-esteem (Kieling & Rohde, 2010). Comorbid problems such as specific learning difficulties might also start to impact on the child, further complicating diagnosis and management (Sadock & Sadock, 2007). Assessment by a psychologist might help to unravel learning strengths and difficulties, and the psychologist could offer advice on necessary support in the classroom. However, this is expensive and could tax the family's resources (Bornstein & Bradley, 2003; Harpin, 2005). Due to the ADHD child needing extra support, one has to decipher whether there are sufficient governmental resources to assist the non-ADHD sibling and his/her parents and siblings.

As it can be seen from the literature, an ADHD child requires constant stimulation and various other resources to treat the diagnosis. However, one has to question whether there are enough support groups and interventions to assist parents and caregivers in dealing with their child. DeSalvo, Geyser, McCarty, Myers, Palmer & Stoep (2010) state that access to expert evaluation and treatment remains limited for youth with ADHD living in rural areas, as well as for ethnic and racial minority youth. Although children with ADHD are equally distributed geographically, the resources needed to treat them are not. In particular, youth living in rural

communities and ethnic minority youth often lack access to evidence-based treatments for ADHD (DeSalvo et al., 2010). Therefore, families that are less educated and do not have a ready knowledge about ADHD and the comorbidities that may be involved, may be less likely to treat their child effectively. Thus, education and social awareness on the disorder as well as availability of resources is incredibly important so as to allow parents to adequately treat their child and to avoid further complications (DeSalvo et al., 2010).

It is suggested that difficulties at home or on outings with carers (for example, when shopping, out in the park or visiting other family members) also become more apparent at this age. Parents might find that family members refuse to care for the child and that other children do not invite them to parties or out to play (Harpin, 2005). Many children with ADHD have very poor sleeping patterns and although they appear not to need much sleep, daytime behaviour is often worse when sleep is badly affected (Brown, 2013). As a result, parents have little time to themselves; whenever the child is awake they have to be watching him or her. Not surprisingly, family relationships might be severely strained and in some cases disintegrate, bringing additional social and financial difficulties (Johnston & Mash, 2001). This might cause children to experience emotional difficulties such as feeling upset or even show oppositional or aggressive behaviour.

In one of the few research studies on this topic, Johnston and Mash (2001) reviewed the evidence of the effect of having a child with ADHD on family functioning. They concluded that the presence of a child with ADHD results in an increased likelihood of disturbances to family and marital functioning, disrupted parent-child relationships, reduced parenting efficacy and increased levels of parental stress, particularly when ADHD is comorbid with behavioural and/or learning problems.

2.4.3 ADHD in young people

At the adolescent stage, there might be a reduction in the hyperactivity that is often so striking in younger children, but inattention, impulsivity and inner restlessness remain major difficulties. A distorted sense of self and a disruption of the normal development of the self have been reported by adolescents with ADHD (Harpin, 2005). Furthermore, excessively aggressive and antisocial behaviour could develop, adding further problems. A study by Barkley, Edwards, Fletcher, Laneri and Metevia (2001) examined teenagers with ADHD and

oppositional defiant disorder (ODD). The latter is defined by the presence of markedly defiant, disobedient, provocative behaviour and by the absence of more severe dissocial or aggressive acts that violate the law or the rights of others. These teenagers rated themselves as having more parent-teen conflict in comparison to the control group that was assembled from the same community (Barkley et al., 2001). Increased parent-teen conflict was also reported by the parents of teenagers with ADHD who participated in the rating exercise. Young people with ADHD seem to be at an increased risk of academic failure, dropping out of school or college, teenage pregnancy and criminal behaviour (Harpin, 2005). These are all factors that could have severe implications for the entire family and which therefore need to be carefully considered.

In light of the seriousness associated with it, executive functioning and the diagnosis of ADHD will be discussed. Executive function refers to a set of mental skills that are coordinated in the brain's frontal lobe (Brown, 2013). Executive functions work together to help a person achieve goals (Brown, 2013). This is an important factor to consider because an ADHD individual might have difficulties in this area.

2.5 ADHD and executive functions

It has been suggested that many people still think of ADHD as essentially a behavioural problem – children who are unwilling or unable to sit still, listen to the teacher and follow classroom rules. Researchers, however, have now recognised that ADHD is not so much a behavioural disorder as it is an inherited problem relating to the development of executive functions in the management system of the brain (Brown, 2013).

It is important to note that executive function is not the same as intelligence. Some learners who are extremely clever have significant impairment in executive function (Brown, 2013). And among those with average or below average intelligence, as measured by Intelligence Quotient tests, there are many with adequate or above average executive function.

The brain’s executive functions are not fully developed at birth. Rather, they progressively develop as the prefrontal cortex develops through early childhood and adolescence and into young adulthood (Berk, 2009; Brown, 2013). As executive functions develop, parents, teachers and others in the child’s life often expect the child to exercise an increasing measure

of self-management, from the simple tasks of dressing and self-care to the more adult responsibilities of managing a high school course load or driving a car.

One way of thinking about children with ADHD is that they are delayed in the development of their executive functions and unable to manage themselves at the same level as their peers. Individuals with ADHD often experience roughly a 30% developmental delay (Brown, 2013). For example, an 18 year old might have executive function skills that are comparable to those of a 12 or 13 year old. Due to the fact that this delay often has a profound impact on academic performance, parents and teachers must provide supervision and support that is more commensurate with the individual's developmental age than the chronological age (Brown, 2013).

This latest understanding of ADHD as a developmental impairment of the brain's executive function has important implications for the assessment of the disorder. When ADHD was seen as just a disruptive behaviour disorder in childhood, the diagnosis was based simply on observing behaviour (Barkley, 2012; Brown, 2013). However, this is no longer a sufficient approach. It is said by Brown (2013) that executive function impairments are largely cognitive and not easily observed. Thus, an alternate approach to assessment is needed. It is not always possible to notice a child with ADHD simply by observing classroom behaviour, because many children diagnosed with this disorder do not misbehave and can appear to be attending to instruction even when their minds are continually wandering in and out (Barkley, 2012; Brown, 2013).

On the other hand, since the behavioural problems of ADHD children do tend to become progressively elevated, this could advance so that their home environment may become highly stressful environment for parents and siblings. This in turn can lead to unfavourable effects on children and parent-child relationships (Abidin, 1990; Deater-Deckard, Scarr, 1996, cited in Abdolahian et al., 2011). It is evident then that a clearer understanding of the complexity of the mental disorder within an ecosystemic context is imperative. As such, it is suggested that the way in which a parent deals with the ADHD individuals and their siblings can play a role in the family's functioning, which might include, but is not limited to, cohesion, family dynamics and interrelationships. It is therefore important to first grasp what parenting means and how it is conceptualised in order to fully understand the role a parent/caregiver has with regards to an ADHD child and his or her sibling/s.

2.6 Parenting

Parenting is by no means an easy feat: it requires a lot of time, patience and balance (Berk, 2009). A parent will often base their parenting styles on the way in which they were brought up, incorporating their personal predispositions and learnt methods of parenting into their own approach (Bornstein & Bradley, 2003). The way in which the parent applies these predispositions can have an impact on the way in which they raise their own child and form relationships (Berk, 2009 & Borrnstein & Bradley, 2003).

According to Broszormenyi-Nagy and Spark's theory (Cushway & Earley, 2002), these patterns of relating are inter-generational as the adult seeks to compensate for their losses in childhood through their own children or in adult relationships. Embedded in the theory are notions of reciprocity and balance within relationships (Cushway & Earley, 2002). It is seen as healthy and appropriate that the child meets their parents' emotional needs to some degree; however, this must be balanced by the care that the child receives from the parent.

The underpinning psychological concepts that are drawn upon to explain the impact of parentification are rooted in a number of theories including: attachment theory, social developmental theory, object relations and self-development models. Each of these models provide a framework for understanding how the developing child forms a sense of identity and an interpretation of their relationship with others (Cushway & Earley, 2002). An example of this is Erickson's stage theory of psychosocial ego development (Erikson, 1959). This theory proposes that the child is required to progress through various stages including, initiative versus guilt and industry versus inferiority (Erikson, 1959). The theory suggests that development is hindered if the demands upon the child are inappropriate and cannot be mastered. This is due to the fact that the child will consequently be left with a view of themselves as inadequate (guilty and inferior). Mahler, Pine and Bergman's (1975) stages of separation individuation and Kohut's self-development model (1971) propose that parentification prevents the child from developing the ability to contain and express their emotions as the parent is not responsive to the child's needs for comfort, containment and mirroring. In effect, the child's developing sense of an autonomous self is compromised by the needs of the mother or the unstable family system.

It is essential to understand that children have great individual variations of temperament, development and behaviour (Berk, 2009; Schor, 1999). The parents' responses also play an

important role in their child's development. Parental responses are guided by whether they see the behaviour as a problem. Parents frequently over-interpret or overreact to minor, normal short-term changes in behaviour. At the other extreme, they might ignore or downplay a serious problem (Schor, 1999). They could also seek quick, simple answers to what are, in fact, complex problems. All of these responses have the potential to create difficulties or prolong finding solutions. Behaviour that parents tolerate, disregard or consider reasonable differs from one family to the next. Some of these differences come from the parents' own upbringing; they might have had overly strict or extremely permissive parents themselves and their expectations of their children follow accordingly. Another difficulty can arise as a result of parents feeling that people are judging them for their child's behaviour. This leads to inconsistent responses from the parents, who might tolerate behaviour at home that embarrasses them (and they therefore disallow) in public (Schor, 1999).

The parent's own temperament, usual mood and daily pressures will also influence how they interpret the child's behaviour (Berk, 2009). Parents who are more relaxed might accept a wider range of behaviour as normal and be slower to label something a problem, while parents who are by nature more stern move more quickly to discipline their children (Berk, 2009). Depressed parents, or parents having marital or financial difficulties, are less likely to tolerate much latitude in their child's behaviour. Parents differ from one another in their backgrounds and personal preferences, resulting in differing parenting styles that will influence a child's behaviour and development (Schor, 1999). In addition to this, a family's socio-economic status can have an effect on the way in which the parents will raise their children.

Socio-economic status is linked to the timing of parenthood and to family size (Bornstein & Bradley, 2003). Greater economic security allows higher SES parents to devote more time, energy and material resources to nurturing their children's psychological characteristics, whereas families in a low SES group tend to have higher stress levels, as well as a stronger belief in the value of physical punishment (Berk, 2009). In the same vein, poverty also plays a role in parenting. The constant stressors that accompany poverty gradually weaken the family system and the interactions within. Culture might also have a role to play. Parents who are part of a community that has different cultural traditions from the main population often have specific child-rearing beliefs and practices that reflect their cultural values and family context, as opposed to those of the main population (Hill, 2006). Culture can thus shape the expectations and hopes parents have for their children and how they understand messages

about being parents (Hill, 2006). The main ways culture influences family life is through beliefs, values and actual parenting practices. Within the home environment, this might mean speaking in a language other than the majority of the population, following particular religious beliefs, cooking and eating in traditional styles and raising children with traditional parenting styles, stories and values. In short, when trying to understand how parenting beliefs and practices are shaped, one needs to pay close attention to the separate effects of the parents' ethnic background, their SES and the matrices of the cultural communities in which they participate (Bornstein, 2002; Hill, 2006; Johnston & Mash, 2001).

A level of interest has been shown by researchers such as Becvar and Becvar (2009) as to how different relationships within the family system, for example, mother with father, parent with sibling, grandparent with parent, modify the child's direct experiences of the family (Berk, 2009). This implies that relationships in the household, as well as in the extended family, are important for family cohesion and contribute to the way in which relationships play out (Berk, 2009). The impact of these different relationships on child development becomes even more complex when we consider the fact that an interaction between any two family members is furthermore affected by others present in the setting (Becvar & Becvar, 2009). For example, research has shown that parents' marital relationships affect the family's ecosystem. If the marital relationship is warm and considerate, mothers and fathers are more likely to employ effective co-parenting, while mutually supporting each other's parenting behaviour. Such parents have more secure attachments to their children (Berk, 2009). By contrast, in marriages that are tense and hostile, the parents tend to interfere with one another's childrearing efforts and are more likely to punish, scold and express anger towards the child (Berk, 2009; Darling, 2007).

This might be better understood by looking at Bronfenbrenner's model, which will be elaborated on in the next section as the full theoretical framework will be further explored under the theoretical modality/framework. What is evident so far is that, according to the literature, family dynamics play an important role in the way in which children relate to their parents and their siblings and, in the same vein, the way in which relationships are formed.

2.7 Family dynamics

i) Ecosystemic model

Dyson (2010) emphasises the importance of Bronfenbrenner's ecological model of human development in order to understand human progress and argues that one must take into account the entire ecological system in which development occurs (Bronfenbrenner, 1994). The system is composed of five socially organised subsystems and at the core of the subsystems is the microsystem. The microsystem's setting is the direct environment we have in our lives, such as family, friends and classmates. The second subsystem is the mesosystem, which involves the relationships between the microsystems in one's life (Darling, 2007). This implies that there is a reciprocal process in the relationship. As much as the first system relies on the second system, the third system is dependent on the second. Therefore, as much as the family affects a child's development, the child also influences the life of his or her family. Thus, in the case of an ADHD child, he/she too has a special effect on his family, whether it be positive or negative (Dyson, 2010). It must be noted that the influence is reciprocal or shared and the interaction is bidirectional. This involves a mutual or cooperative interchange and a 'give and take' means of operating in the relationship.

Families that constitute of children with ADHD have to contend with a greater number of behavioural, developmental and educational disturbances. This often requires that more time, logistics and energy be spent than usual (Darling, 2007). It is not surprising that these increased demands are frequently associated with the child living with ADHD. The financial burden of treating ADHD and its associated psychiatric disorders can add to these difficulties (Dyson, 2010).

When family environments are chronically stressful, both the adults and children are at greater risk of physical and mental health problems. In families affected by ADHD, marital conflict is common, and has been consistently linked with poorer health and mental outcomes. It has been suggested by Berk (2009) that marital conflict can negatively impact a child by reducing the child's sense of safety and security in their home environment, as well as upsetting parent-child relationships. In addition to this, it can contribute to inconsistent discipline, as well as decreasing parental monitoring of potentially dangerous behaviours or, more directly, act as a platform for aggressive behaviours (Darling, 2007).

Russell Barkley, a leading ADHD expert, describes a "vicious cycle" that he often sees in ADHD families where a child's ADHD-related behaviour is both a cause and an effect of family problems. He suggests that the cycle goes as follows:

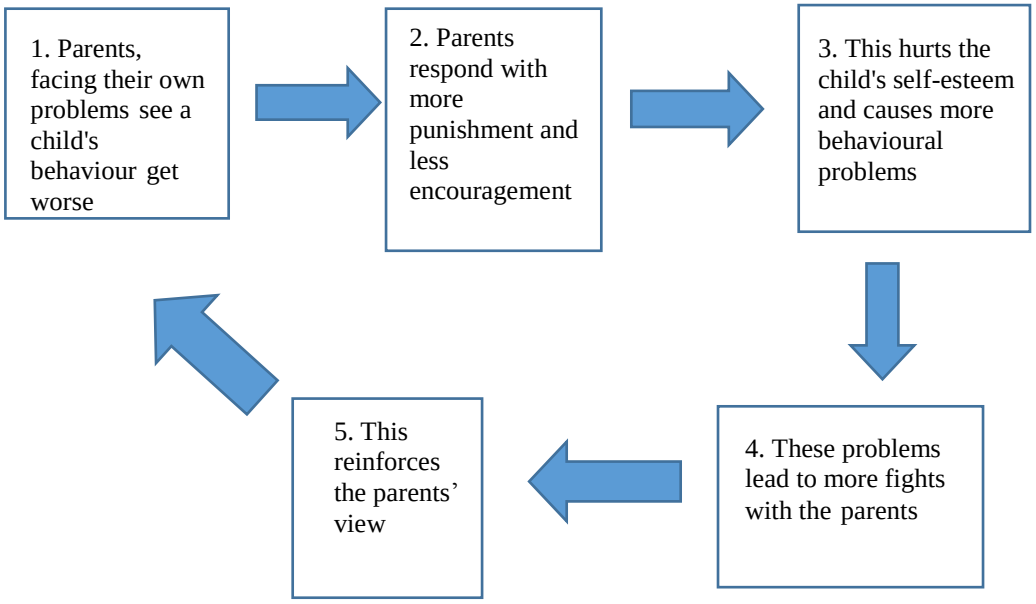


Figure 1: The researcher's diagrammatic interpretation of Russell Barkley's "vicious cycle"

In addition, ADHD is primarily caused by genetic factors. Kieling and Rohde (2010) reported that "ADHD is considered a multifactorial developmental neuropsychiatric disorder, based on genetic predisposition and neurobiological dysregulation" (p. 2). As a result, families often have more than one member with ADHD. Sometimes it is a parent and child; sometimes two siblings might have ADHD. Multiple-ADHD families face even greater challenges than single-ADHD ones. Honos-Webb (2005) states that when one or both of the parents also have ADHD, marital problems, financial difficulties or rivalries among the siblings cause the cycle to become more complex. Research has shown that families with an ADHD child are different from non-ADHD ones in that there might be different relationships or parenting styles in relation to each child. This however, does not mean that ADHD families are worse than their non-ADHD counterparts, but rather that families might face more challenges (Johnston & Mash, 2001).

Children with ADHD also tend to get into more fights with siblings. This happens for two reasons. Firstly, ADHD children tend to argue more than non-ADHD ones. Secondly, siblings might get tired of their ADHD siblings' impulsive or inappropriate behaviour. This is said to be common (Barkley, 2000). Children might not understand that ADHD is nobody's

fault. Sadock and Sadock (2007) suggest that children with ADHD are at higher risk of developing conduct disorders and alcohol use disorders. These problems can result in frustration, stress and exhaustion for everyone. Moreover, children who have the hyperactive type of ADHD will have very different challenges from the inattentive ADHD child (Abdolahian et al., 2011; Firmin & Phillips, 2009).

The way in which most families cope with their ADHD child is by creating their own routines and designing their own systems (Barkley, 2000). To do this, parents will need to learn as much as possible about ADHD and its treatment. This includes new behaviour management techniques, as well as a basic understanding of the legal rights of children with ADHD (Barkley, 2000). One or two inappropriate behaviours at a time can be targeted both at home and at school. This will help to keep the parents from becoming overwhelmed since ADHD children can have so many disruptive behaviours. This may include, acting out behaviour, aggression, hyperactivity and impulsivity. It is also important to take one day at a time, but also to prepare oneself with knowledge and a plan for the next potential challenge (Barkley, 2000). Being prepared decreases stress and helps to prevent the family from staying in the "vicious cycle".

The diagnosis of a child often accelerates a family crisis and threatens family integration due to the shock and, at times, denial of the disorder (Dyson, 2010). Furthermore, the family might need to draw on their emotional and financial resources in order to manage the circumstances (Dyson, 2010).

ii) Financial Resources

Research has shown that individuals with ADHD more often than not need extra support and attention in order to control their behaviours and challenges (Abdolahian et al., 2011). Adjustments have to be made and the necessary action taken in order to accommodate the child with the mental disorder. Such measures could include a special school, medication and extra support for both the child and the family (Dyson, 2010). Due to the high costs of such facilities, the family might be placed under financial strain, which could end up affecting the sibling and the whole family (Kendall, 1999). Reports have shown that in this case it is often the non-ADHD sibling that has to go without and is denied certain opportunities due to the fact that the ADHD child requires specific attention and in some cases medication (Kendall,

1999). This could affect the way in which the non-ADHD sibling perceives the way in which the parent manages the children in the home.

In some cases, families and individuals might be denied the help that they need due to a lack of funding, socio-economic status and their location (Bornstein & Bradley, 2003). This could exacerbate the situation and place further strain on the family's interrelationships. One can therefore see that the situation at hand is cyclical, because the one aspect affects the other and therefore places a strain on the entire ecosystem's coping mechanisms and ability to live harmoniously. The child's mental disorder thus has the potential to become a source of stress, at both financial and emotional levels, for the caregivers and the family in general.

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2.8 Parenting styles

Parents' and caregivers' methods of discipline and child-raising are considered among the most important contributors to evolving and behavioural problems persisting in children (Abdolahian et al., 2011). Research has suggested that parenting styles are regarded as the emotional climate between parents and children (Darling & Steinberg, 1993). These authors define parenting style as a global construct reflecting the overall emotional tone of the parent-child relationship. The way in which parents discipline and control their child's behaviour can have a significant effect on the child.

Baumrind (cited in Abdolahian et al., 2011) introduces the role of parenting styles and differentiates between methods of controlling performance by identifying three different parenting styles, namely: authoritative, authoritarian and permissive. The three different parenting styles will be discussed further so as to provide a more detailed description of how parents might raise their children.

i) Authoritarian:

These parents have high expectations of their children and have very strict rules that they expect to be followed unconditionally (Davies, Kildea & Wright, 2011). This style is low in acceptance and involvement, high in coercive control and low in autonomy granting. Due to the little opportunity for exploration, these children are often impaired in identity development once they reach early adulthood (Berk, 2009).

ii) Permissive:

Permissive parenting, also known as indulgent parenting, makes relatively few demands on the children. Because these parents have low expectations of self-control and maturity, they rarely discipline their children. Authoritarian and permissive styles of parenting are more likely to aggravate the situation and have detrimental effects on the family and parent-child interactions for a child living with ADHD (Abdolahian et al., 2011).

iii) Authoritative:

Authoritative parenting is the favoured parenting style (Davies, Kildea & Wright, 2011; Husain & Phoenix, 2007). These parents and caregivers use an authoritative means of child-rearing, are more intimate with their children and monitor their behaviour. Discipline is used, but it is based on reasoning (Berk, 2009). Children are encouraged to make decisions and learn from their mistakes. Caregivers and parents are warm and nurturing and treat their children with respect and kindness (Abdolahian et al., 2011). They also respect each child's personality, which is highly important, especially when dealing with a household that has an ADHD individual. Consequently, these children are generally said to have high levels of self-reliance and self-esteem, are socially responsible, independent and achievement-oriented (Davies, Kildea & Wright, 2011; Husain & Phoenix, 2007).

Therefore, one can see that parenting styles could play a role in the way in which the child relates to their parents. This is due to the fact that certain parenting styles might be more conducive to a happier child and thus a more harmonious environment. However, due to the nature of the mental disorder, it can be very hard to parent the child with ADHD and maintain a consistent routine. The ADHD child might therefore be given more attention, whether it be positive or negative (being reprimanded) while the non-ADHD sibling may be left to his/her own devices (McCarthy, 2006). If the caregiver is known to give the one child more attention than the other sibling, or parents the siblings differently, one can hypothesise that the non-ADHD sibling might perceive a difference in parental interaction towards him/her as opposed to the parenting towards the sibling living with ADHD. This could impact the nature of the interrelationships in the home. It is therefore important for the parent(s) or caregiver(s) to take into consideration the method or technique they exercise in the home. As mentioned before, parenting comes with multiple considerations and one of those considerations relates to parents' stress levels.

iii) Parenting stress

It is extremely important for caregivers to work through their own parenting stress as this has been found to be associated with a range of negative outcomes for children, including behavioural difficulties and insecure attachments (Abdolahian et al., 2011). Parental confusion and distress can result in inconsistent parenting, which exacerbates any child's difficulties, but especially the ADHD child (Davies, Kildea & Wright, 2011). Research by Abdolahian et al. (2011), as well as by Davies, Kildea and Wright (2011), has shown that difficulties arise in families of children with ADHD, including more stressful and conflicted family environments, aggressive methods of disciplinary practices and dysfunctional connections within the family in comparison to those families who do not have a child living with ADHD (Marton, Rogers, Tannock & Wiener, 2009).

Against this backdrop, one can hypothesise that the negative potential of using an unsuitable parenting style for a child with a mental disorder can have negative repercussions for the sibling without ADHD as well. These ripple effects might negatively impact the parent-child relationship and alter the non-ADHD child's perceptions of the caregiver that is exercising authority.

From the above, it is evident that parenting children requires care, thought, refinement and a fine balance. However, it is important to take into account at this point that parents who have been diagnosed with ADHD are likely to bring another variable to the parenting process.

2.9 Parenting in adults with ADHD

Due to the fact that ADHD is reported to be a hereditary condition (Abdolahian et al., 2011; Firmin and Phillips, 2009) it is important to note how this will affect the parenting skills of adults with ADHD. It is well documented that ADHD symptoms that are present in adults are associated with significant impairment across spheres such as academic achievement, interpersonal relationships, a less optimal parenting style, higher levels of family conflict and less family cohesion (Buitelaar, Oerlemans, Rommelse, van Aken and van Steijn, 2013; Johnston, Mash, Miller & Ninowski, 2012). Difficulties might emerge when parenting behaviours are characterised by a lack of control or, on the other side of the spectrum, being too harsh or over-reactive. When considering emotional responsiveness or a persons' ability to express their emotions freely and openly, parenting impairment is often characterised by low levels of emotional responsiveness and hostile, cold, demeanours towards the child

(Johnston et al., 2012). Thus there are many opportunities for parental ADHD to impact a child's life (Johnston et al., 2012).

The discussion thus far has shown how the parent contributes to the ecosystem and the relationships within it. However, it must be noted that sibling relationships can also determine and play a role in the family's interrelationships.

2.10 Sibling relationships

i) Sibling accounts

A parent of a child with ADHD is likely to use effective coping strategies that have been tried over time when dealing with the erratic and stressful behaviour exhibited by the ADHD child. If the child diagnosed with ADHD has siblings, however, these non-ADHD siblings might face their own set of difficulties (Kendall, 1999). Only partial attention has been paid to sibling relationships in families with ADHD children. However, in the few studies that have been done, ADHD was found to have had significant impacts on the siblings of children who have ADHD (see, for example, Harpin, 2005 & Kendall, 1999). In particular, Harpin (2005), who presented sibling accounts of ADHD and identified disruption caused by the symptoms and behavioural manifestations of ADHD, found that siblings of children with ADHD were at increased risk for conduct and emotional disorders.

Kendall (1999) found that out of the brothers and sisters she interviewed in her study, the majority thought they were "severely and negatively" affected by living with a sibling who had ADHD. This study found that the most significant problem identified by siblings was the disruption caused by the behaviour of the child with the condition. Examples of this disruptive behaviour included physical and verbal aggression, out-of-control hyperactivity, emotional and social immaturity, academic underachievement and learning problems, family conflicts, poor peer relationships and difficult relationships with extended family (Johnston et al, 2012). Kendall (1999) also emphasised that siblings of ADHD children often reported being victimised by their ADHD brother or sister: they reported being the recipients of physical violence, verbal aggression and manipulative and controlling behaviour. Moreover, many siblings also attested to feeling unprotected by their parents, who were perceived as being too exhausted or overwhelmed to intervene (Kendall, 1999; see also Johnston, Mash, Miller & Ninowski, 2012). The parents of children with ADHD also rated their families as

lower in achievement and organisation, and as higher in conflict than families not affected by ADHD (Kendall, 1999).

As a result of the ADHD symptoms and consequent disruption, many siblings of children who have ADHD described feeling anxious, troubled and sad (Harpin, 2005). Feelings of sorrow and loss were found to be common among siblings of children with ADHD. These children wished for "peace and quiet", and a "normal" family life (Kendall, 1999). They also experienced worry that their sibling with ADHD would get hurt or get into trouble. Siblings felt their parents expected them to not require much attention. Moreover, these children often felt ignored or overlooked, because their needs seemed less significant than those of their sibling with ADHD. They also reported that they tried not to be a further burden on their parents (Harpin, 2005). Some of the siblings of children with ADHD felt frustrated due to the degree to which the child with the condition "controlled" family life (Abdolahian et al., 2011 & Kendall, 1999).

Siblings of ADHD children might struggle to understand why their family dynamic is different than their friends' families and why their sibling does not behave in a similar way. It is suggested that the non-ADHD child can feel baffled and frustrated by their brother or sister's behaviour, feel pressured by the expectation to be a "good" child, or even get jealous of all the extra attention they perceive the parent to be giving the other child (Buitelaar et al., 2013 & Kendall, 1999). It is common for the non-ADHD sibling to take on more than they should to try and help, especially if they are the older sibling, and that can lead to feelings of resentment (Abdolahian et al., 2011 & Kendall, 1999). Siblings also commonly express feelings of powerlessness and see themselves as unworthy of attention, love and care from their parents (Kendall, 1999). In addition, they might feel stress over any change in routine, such as a vacation, due to the effect it may have on their brother or sister's mood and actions (Harpin, 2005; Kendall, 1999). For example, Kendall (1999) notes that siblings reported concern about the child with ADHD "ruining" potentially enjoyable activities due to their behaviour, which reduced their anticipation for these events.

ii) The Parentified child

Kendall (1999), as well as Abdolahian et al. (2011), found that disruption for siblings also resulted from expectations that the non-ADHD siblings act as caretakers for their brother or sister with ADHD. Both older and younger siblings reported that their parents expected them to play with and supervise the child living with ADHD. Other caretaking activities included giving medication, helping with homework, intervening with teachers and other children on behalf of the child with ADHD, and keeping the child occupied when the parents were exhausted (Kendall, 1999). Harpin (2005) likewise noted that siblings reported that their caregivers expected them to care for and protect their ADHD siblings because of the social and emotional immaturity associated with ADHD. While some siblings reported pride at being able to carry out this role, the majority reported that they found it difficult, particularly when they felt victimised by their sibling. Some reported that they provided relief for their parents, but did not feel they received relieve themselves (Harpin, 2005).

The term the 'parentified child' was coined by Minuchin and colleagues (Minuchin, Montalvo, Guerney, Rosman & Schumer, 1967) to refer to children who assume responsibility in the home as a result of economic and social conditions. Later Broszormenyi-Nagy and Spark (1973) defined a process of 'parentification', denoting the expectation from a parental figure that a child would fulfil a parental role within the family system (Cushway & Earley, 2002). A parentified child could be an only child, one child among siblings, or include more than one child in a sibling group. Parentified children come from one- or two-parent households and are found in heterosexual and homosexual family contexts (Cushway & Earley 2002).

The parentification concept views caregiving by children as an aspect of normal parent-child relationships, but also considers the pathological aspects that result from an excessive burden in an unsupportive environment. Mahler et al.'s (1975) stages of separation individuation and Kohut's self-development model (1971) suggest that parentification prevents the child from developing the ability to contain and express their emotions as the parent is not responsive to the child's needs for comfort, containment and mirroring. In effect, the child's development of a sense of an autonomous self is compromised by the needs of the mother or the unstable family system.

iii) Sibling's accounts of living with a disabled sibling

Due to the limited literature on sibling's accounts regarding their ADHD sibling, some research, although limited, was found on disabled children and their siblings. This literature supports the data that was found for ADHD siblings. For example, siblings living with a disabled sibling suggested that more attention was given to their handicapped sibling than them. These reports echoed the few studies done on the siblings of ADHD children. Judy Dunn, a developmental psychologist, concluded that children who live with a disabled or sick sibling respond to this situation in different ways (Schuntermann, 2007). She stated that some siblings benefit from their experience, others seem to be unaffected, while others are left worse off.

With regard to siblings' experiences of reduced parental attention, there are consistent reports suggesting that siblings of children with disabilities express feelings of being deprived of their parent's time and attention (Schuntermann, 2007). Differential treatment by parents has been the subject of extensive empirical research and is an important aspect of this research study. Schuntermann (2007) observes that children are vigilant, from a young age, about the ways in which they and their siblings receive parental affection, attention and discipline. Furthermore, he suggests that sibling relationships are likely to be compromised when children foster negative attributions to differential parental treatment (Schunterman, 2007). In the literature compiled by Chang and Gau (2013), it is suggested that maternal differential treatment is strongly associated with heightened conflict and hostile sibling relationships, especially when children have an insecure attachment. Therefore, despite the gap in the literature regarding sibling's accounts of their ADHD siblings, there is evidence from Schunterman's study that there are common features with regard to parenting, the parent-child relationships and the siblings' relationships.

This is also true of the parental involvement between siblings and between the caregiver and their child, which will be discussed below.

iv) Parent involvement

The quality of the relationship between each child and parent, as well as the relationship between the parents, affect the sibling relationships. Parents who are attentively responsive to their children promote a healthy environment and cooperative behaviour among their children

(Furman, 1995; Bryant and Crockenberg, 1980, as cited in Sailor, 2004)). However, parents can sometimes identify more with the one child than his or her sibling (Buitelaar et al., 2013). This might be in the case with an ADHD child and a parent who is also living with ADHD. Such a parent might be able to identify with the ADHD child more than the other sibling. The child's temperament, gender, health or hereditary traits can also affect this relationship. With this being said, it is important to note that when children perceive parental partiality, it increases feelings of competition, conflict and jealousy among siblings (Sailor, 2004).

It is valuable then, to not only explore the role of the parenting style on discipline, but also the differential parenting of siblings within the family ecosystem and siblings' perceptions of that differentiation. It is the purpose of this research to explore the extent to which individuals with siblings who have been diagnosed with ADHD perceive or experience difficulties in the family system. Sibling relationships and perceptions are key factors in the research when exploring the participants' experiences of the caregivers' interaction towards them as opposed to the ADHD sibling.

It is evident thus far, that ADHD can be very disruptive in the home environment. It is for this reason that many families and parents seek various interventions to help their child. It has been suggested that the best management of ADHD should include patient education, psychosocial interventions and medical management (Beal, 2003).

2.11 Treatment

While there is no cure for ADHD, a combination of therapy and medication can alleviate some of the symptoms the child may experience. This might include impulse control, focussed attention and an improvement in their behaviours. However, there is a difference of opinion with regard to the use of medication and stimulants and the side effects that might result from the treatment.

2.11.1 Reluctant Parents

Research by Brown (2013) has indicated that some parents are reluctant to seek a psychological, psychiatric or neurological assessment for their child, even when they are experiencing considerable difficulties. Brown (2013) observes that parents sometimes insist that the child is simply being lazy or oppositional, or they might blame the teacher or themselves for the display of behaviour. Parents and caregivers often worry that the evaluator

will recommend medication for the child, which they fear or perceive as risky or dangerous (Brown, 2013). In such cases, it can be helpful to emphasise that getting a good assessment does not commit the parents to any specific intervention. The first step is to find out if the individual has a real problem and, if so, to get a clear picture of the specific difficulties. Once that is done, the parents can consider with the evaluator the available options to help the individual and then decide upon the best course of action for their child (Brown, 2013).

2.11.2 Using stimulant medication for children with ADHD

According to the literature, families of children with ADHD go through a series of phases prior to accepting treatment. Accordingly, families proceed through a series of readiness for change stages. Some may be at a "pre - contemplative stage," having never considered a particular psychosocial or pharmacological treatment (Cunningham, 2007). Others may be at a "contemplative stage"; willing to consider the possibility of, though not ready to initiate, a change. Barkley and colleagues, for example, found that many parents with children in kindergarten with ADHD and aggressive behaviour choose not to enrol in a demonstrably effective parent training programme (Cunningham, 2007). Those at a "preparatory" or "action stage" are ready to initiate, or in the process of making, changes (e.g improving their child's management skills or beginning a course of pharmacological treatment). At the "maintenance stage," parents who have successfully initiated a change or treatment program must work to sustain it (Cunningham, 2007, p. 682).

Many parents who believe that diet affects hyperactivity will be hesitant to use medication because of media reports, or are simply reluctant to see their child as having a medical problem. Therefore they focus more on dietary interventions. Families find behaviour therapies more socially acceptable than medication. Many describe negative comments from friends and family, and worry that taking medication could stigmatise the child (Antle, Charach, Cook & Skyba, 2006). Therefore parental beliefs about the etiology of ADHD behaviours in children are associated with treatment choices. A study compiled using a group of Latina mothers suggested that inadequate adherence to stimulants for their young children was consistent with beliefs that medication could be addictive or lead to dull cognition, and/or believing that it was inappropriate for behavioural problems (Arcia, Fernandez, & Jaquez, 2004). The research indicates that parents are more accepting of medication for their children when the diagnostic process has been thorough, including comprehensive

psychological testing (Bussing & Gary, 2001). Choices about medications can change over time, with schools and extended family members influencing parental decisions (Antle et al., 2006).

In order to understand the factors that influence adherence to stimulants from the perspective of parents, small groups of parents whose children have ADHD and who had tried stimulants were interviewed and researched by Antle et al., (2006). The participants consisted of 17 mothers and fathers of 14 children with ADHD aged 7–14 years who had received detailed diagnostic assessments and had used stimulants. The focus group dialogue was recorded and transcribed. Using established methods of data analysis, themes were identified and explored. The goal of this research was to investigate how parents thought and felt about stimulant treatment for their children using a phenomenological approach (Antle et al., 2006).

The results yielded a variety of responses. Parents described a range of experiences relating to living with a child who has ADHD (Antle et al., 2006). They shared with the researcher a variety of paths leading to assessment and diagnosis and to the choice of using stimulant medication. They also described the initial decision as only one in a series of decisions regarding the use of medication. Prominent themes that emerged include the following: an experience of confusion and feeling blamed or responsible for the child's behaviour, the need for time to digest and reflect on information about their child's difficulties and to consider treatment options, and a strong desire to do what is best for the child, balancing treatment benefits against concerns about safety, stigmatisation and respect for the child's wishes (Antle et al., 2006).

Furthermore, the parents who participated in the study divulged that discovering their child had ADHD was difficult (Antle et al., 2006). The parents involved in this sample described both the delight and challenge involved in raising a child with ADHD. The children were described as "bubbly", "very social", as having "a great personality" and "bright". The challenging side was revealed in statements such as: "I needed to learn how to ignore the negative behaviour", "I need to pick my battles", "It's a constant struggle" and "It's challenging and tiring". For many the process of seeking assistance, receiving a diagnosis and accepting the label of attention deficit disorder was complex and difficult (Antle et al., 2006, p. 78).

2.11.3 Parents' verbalisations regarding the decision to use medication as treatment

The process of deciding to try medication was difficult for most of the parents who participated in the study by Antle et al. (2006). There were several reasons for this. Some parents felt responsible for the child's problems, while other parents feared disapproval or judgment about the safety of medication and the possible side-effects. Additionally they were concerned about the involvement of family, friends and other influential people who did not necessarily understand the issues or support a trial of medication (Antle et al., 2006).

The decision to use or not to use medication was an ongoing process for many parents. Several families noted that they still continued to search for additional ways to assist their child beyond the help medication provided (Antle et al., 2006). In addition to using medication to assist their children, the parents focussed on finding school programmes and extracurricular activities that matched the child's needs. Many families focussed on providing a healthy diet (Antle et al., 2006). Some parents looked for school programmes that were small and nurturing, and some offered their child food additives, while several avoided excess sugar. Some parents tried new parenting techniques, organisational aids and new methods for teaching skills to their children, including neural feedback and "brain gym" (Antle et al., 2006, p. 79).

2.12 Conclusion

The above empirical literature regarding ADHD and the family ecosystem was extensively researched in anticipation of answering the research questions posed in Chapter 1. It does appear, from the research that is of course not all-inclusive, compiled on this topic, that ADHD can have a substantial effect on family interactions. However, due to the fact that the literature is limited, it is surmised that the following chapters of this research can expand on any existing literature in this field of study. In chapter 3 the fundamental theoretical framework that will guide this research will be outlined.

CHAPTER 3:
THE THEORETICAL FRAMEWORK:
BRONFENBRENNER'S ECOLOGICAL THEORY



"I am what I am because of who we all are."- Anonymous

3.1 Introduction

This study focused on the sibling's perception of the impact that a sibling diagnosed with ADHD has within the family system. A family system suggests that individuals cannot be understood in isolation from one another, but rather as a part of their family, because the family is a social unit (Becvar & Becvar, 2009). Another author, Titelman (1998) concurs that families are systems of interconnected and interdependent individuals, none of whom can be understood in isolation from the system. It is therefore imperative to explore the construct of a family system. Similarly, as this is an academic exercise, the predominant theoretical framework that explains the relationships with individuals' contexts within communities and the wider society also needs to be explicated.

Interestingly, according to Bowen (in Titelman, 1998), a family is a system in which each member has a role to play and rules to respect. Members of the system are expected to respond to each other in a certain way according to their role, which is determined by relationship agreements. Within the boundaries of the system, patterns develop as certain family members' behaviour is caused by and causes other family members' behaviours in predictable ways. Maintaining the same pattern of behaviours within a system might lead to balance in the family system, but it might also lead to dysfunction (Titelman, 1998). This perception of a family system is particularly relevant to this study. Therefore the primary position of what constitutes a family will be based on Bowen's understanding.

As argued above, the family constellation is of relevance to this study and Bronfenbrenner's ecological theory is best suited to this theme. This is due to the fact that he explores different "layers" that will have an impact on the individual in one way or another. In this theory it is believed that the individual does not stand in isolation, but is susceptible to change and transformation through interaction with various factors. This will be explained further in the next paragraph.

3.2 Bronfenbrenner's ecological theory

An ecological approach to human development is concerned with the continuous and reciprocal impact of an individual and his or her environment (Bronfenbrenner, 1977, 1979). The focus on the influence of the environment differentiates Bronfenbrenner's theory from the intrapersonal and distant interpersonal psychological theories that preceded his (Sallis, Owen & Fisher, 2008). For Bronfenbrenner, the environment involves not only the individual's immediate setting, but expands beyond that. Bronfenbrenner (1977, 1979) posited that there are various layers of one's ecological environment, which include the microsystem, mesosystem, exosystem and macrosystem. It is said that development is a "product of interaction between the growing human being and its environment" (Bronfenbrenner, 1979, p.16). It then becomes apparent that both the person and the environment require equal attention in order to understand the development process.

While Bronfenbrenner strongly argues that environmental factors impact developmental outcomes, he did not ignore the role of biology. Bronfenbrenner and Ceci (1994) developed the bio-ecological model of development, acknowledging that genetic material interacts with the environment to establish developmental outcomes. They argued that developmental outcomes will be optimal when both genetic material and environment are most favourable (Bronfenbrenner & Ceci, 1994). This theory has recently been renamed "bio-ecological systems theory" to emphasise that a child's own biology is a primary environmental variable that stimulates his development. The deduction is that the interaction between factors in the child's maturing biology, his/her immediate family/community environment and the societal landscape stimulates and directs his/her development. Changes or conflict in any one of the layers in the system will ripple throughout other layers. Therefore, in order to study a child's development, one must look not only at the child and his/her immediate environment, but also at the interaction and impact of the larger environment (Paquette & Ryan, 2001).

Although certain child development theories obfuscated the understanding and relevance of the above, Paquette & Ryan (2001) suggest that more recent child developmental theories accept that both a child's biology and his environment play a role in their change and growth. These theories now focus on the role played by each and the extent to which they interact in ongoing development. Bronfenbrenner's ecological systems theory pays attention to the quality and context of the child's environment holistically (Bronfenbrenner, 1979). He states that as a child develops, the interaction within these environments becomes more complex. Additionally, one cannot dismiss the environmental factors that might contribute to the child's stability or lack thereof.

According to the ecological theory, if the relationships in the immediate microsystem break down, the child will not have the appropriate developmental and emotional tools to explore other parts of his environment (Bronfenbrenner, 1979). Bronfenbrenner postulates that the instability and unpredictability of family life, often due to poor economy, unemployment and poverty, are the most destructive obstacles to a child's development (Addison, 1992).

With respect to the South African situation in particular, Addison (1992) observed that children, due to parents working long hours, HIV and the death of family members, do not have the constant mutual interaction with important adults that is necessary for development within their microsystem. Due to these challenges particular to our South African context and specifically related to "at risk" communities, children might not find the affirmation that should be present in the child-parent (or child/other important adult) relationship and might consequently search for it in dangerous places. This might include the use of drugs or alcohol and/or other risk-taking behaviours. These deficiencies in the family-child interactions present themselves especially in adolescence as a-social behaviour, lack of self-discipline and the inability to provide self-direction (Addison, 1992). There are also implications for the educational realm. Considering the breakdown occurring within children's homes and communities, is it possible for our educational system to make allowances for these deficiencies? It seems that it is necessary for schools and educators to fill the gap and to provide stable and long-term relationships.

Having said that, Bronfenbrenner (1977, 1979 & 2005) believes that the primary relationship needs to be with someone who can provide a sense of caring that is meant to last a lifetime. His theoretical underpinning suggests that the relationship should ideally be fostered by a person or people within the immediate sphere of the child's influence (Paquette & Ryan,

2001). Schools and educators fulfil an important secondary role, but cannot provide the complexity of interaction that should be provided by primary adults such as the parents or immediate caregivers. It is therefore suggested that schools and educators should work to support the primary relationship and to create an environment that welcomes and nurtures families. This might be achieved if we attempt to realise Bronfenbrenner's ideal of the creation of public policy that eases the work/family conflict (Henderson, 1995). It is in the best interests of our entire society to lobby for political and economic policies that support the importance of parents' roles in their children's development.

It is evident from the above outline that the bio-ecological theory incorporates all aspects of the individual's surroundings and relevant figures in their life, meaning that it takes into account a vast number of factors that have a role to play in the individual's life. Ecological theory is therefore considered to be the most robust theory of psychological development and is commended for its ability to incorporate intrapersonal and interpersonal constructs within its framework. It is involved in articulating the process of human socialisation and it has been a key to understanding education (Bronfenbrenner, 1979). Ecological theory is also highly commended for its positive impact on reforming interventions and increasing their efficacy through its multileveled approaches to development and intervention (Sallis, Owen & Fisher, 2008). Bronfenbrenner underlines the influence of different levels and sizes of environments on the child's development, in the first place the social and cultural environments (Bronfenbrenner, 1979). One noteworthy criticism of ecological theory, however, is that, while acknowledging the interaction between variables on different levels, the theory fails to account for how these influences occur (Sallis et al., 2008).

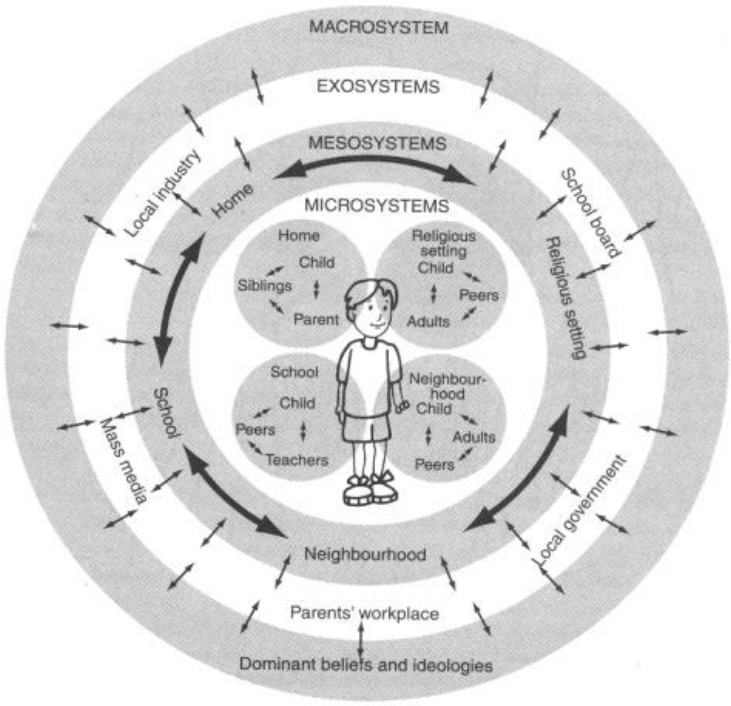


Figure 2: Bronfenbrenner's ecological framework for human development. Picture taken from Penn. H (2005).

Figure 2 graphically represents Bronfenbrenner's ecological framework for human development, with its four different layers that play a specific role in an individual's life. In his initial theory, Bronfenbrenner postulated that in order to understand human development, the entire ecological system in which growth occurs needs to be taken into account. In subsequent revisions, he acknowledged the relevance of the biological and genetic aspects of the person in human development.

3.3 Ecosystems theory

Like Bronfenbrenner's ecological theory, ecosystems theory allows for the conceptualisation of the reciprocal impact of both individual and environmental factors on development and functioning (Rothery, 2001). From an ecosystems theoretical perspective, both the individual and the various levels of their environments are defined as systems (Becvar & Becvar, 2009). Systems are thought to exist in a hierarchy, with systems embedded in each other (Greif & Lynch, 1983; Visser, 2007). Systems can contain subsytems, or be nested in larger supersystems (Becvar & Becvar, 2009). Each system has a boundary, giving it its unique identifying features (Becvar & Becvar, 2009). For example, boundaries distinguish one community from another or one subsystem from another. More specifically, they might

distinguish the parental and sibling subsystems from one another, or the work from the family subsystem. Boundaries can be permeable or open and flexible, allowing for the free flow of input and information, or rigid and closed, restricting the flow of information (Rothery, 2001). Optimally, systems need to be permeable, yet sufficiently well defined, forming a balance between being opened and closed (Rothery, 2001). Permeable boundaries allow for influence from and interaction with other systems (Becvar & Becavr, 2009; Visser, 2007).

In an ecosystems framework it is argued that all systems are permeable or open to some extent, which leads to it being impacted by the environment (Becvar & Becvar, 2009; Visser, 2007). Due to their permeability, systems are thought to receive input from the environment, such as energy and information, which then comes to be used in the functioning of the system (Greif & Lynch, 1983; Becvar & Becvar, 2009). The system responds to the environment in the form of an output, which acts as an input for the environment (Greif & Lynch, 1983; Becvar & Becvar, 2009). A constant flow of input and output is necessary to ensure that the system continues to function and, as with Bronfenbrenner's ecological theory, implies the reciprocal impact of individual and environment on each other (Greif & Lynch, 1983; Rothery, 2001). In addition, it also intimates a circular nature of causality, as opposed to linear causality (Rothery, 2001). To explain this in a simplified manner, one could suggest that if **A** makes **B** happen, in circular causality **B** is also a cause itself and can modulate or perpetuate **A**. So you get a circle, with **A** causing **B** causing **A** causing **B**... and so the cycle continues. This is depicted in a diagram below.

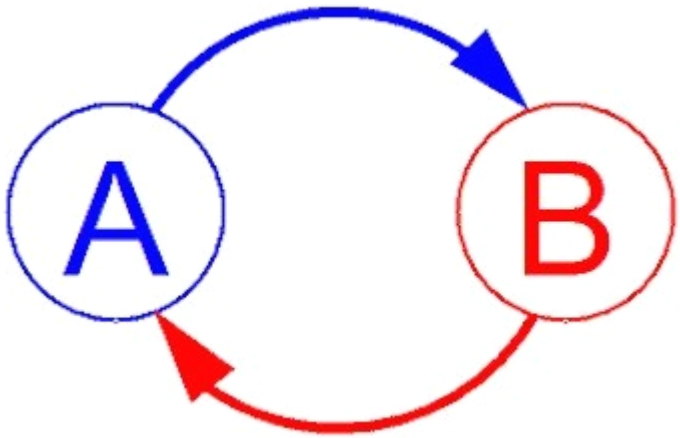


Figure 3: Circular nature of causality

This is especially true in children and families. In family therapy, for example, the aim is not to find out where it all started, as this could be a long process. Therefore, the objective is not to find blame, but instead to have everyone involved acknowledge that there is a problem and to work towards increasing communication with each other to find a way to deal with that problem together. This is where the idea of permeable boundaries falls into place.

It is the permeable boundaries of open systems and the constant flow between systems that allows for change and growth (Visser, 2007). There are, however, feedback loops. Forming part of these are inputs that serve either to maintain equilibrium in the system (negative feedback) or to promote change (positive feedback) that has been accepted by the system (Becvar & Becvar, 2009). Therefore, both feedback processes might refer to something that is good and/or something that is bad. However, the goodness or badness of a feedback process can be evaluated only relative to its context (Becvar & Becvar, 2009). Here, it is important to note that neither positive nor negative feedback causes anything. Rather, both types of feedback are descriptors of processes in a given system at a particular time. Comprehending and understanding the feedback process requires looking at both the behaviour and the response of the system to that behaviour (Becvar & Becvar, 2009). This will be explained in detail below:

Negative feedback loops are ways that families correct a deviation in family functioning so as to return it to a previous state of homeostasis. Positive feedback loops arise as a family attempts to add new information to the system. This can occur as a part of the growth process or increasing levels of complexity. One might use the example of a child that misbehaves or deviates from the norm (the family problem) because he is jealous of his sibling. The father responds to the child with harsh or punitive behaviour (an attempted solution), which confirms the child's belief that he is loved less and his behaviour worsens. Therefore, an intervention that would be of benefit to the child is for the father to change his pattern of interaction so that the father can help calm the child's behaviour and show him that he is not loved less.

Feedback loops can be represented graphically as follows:

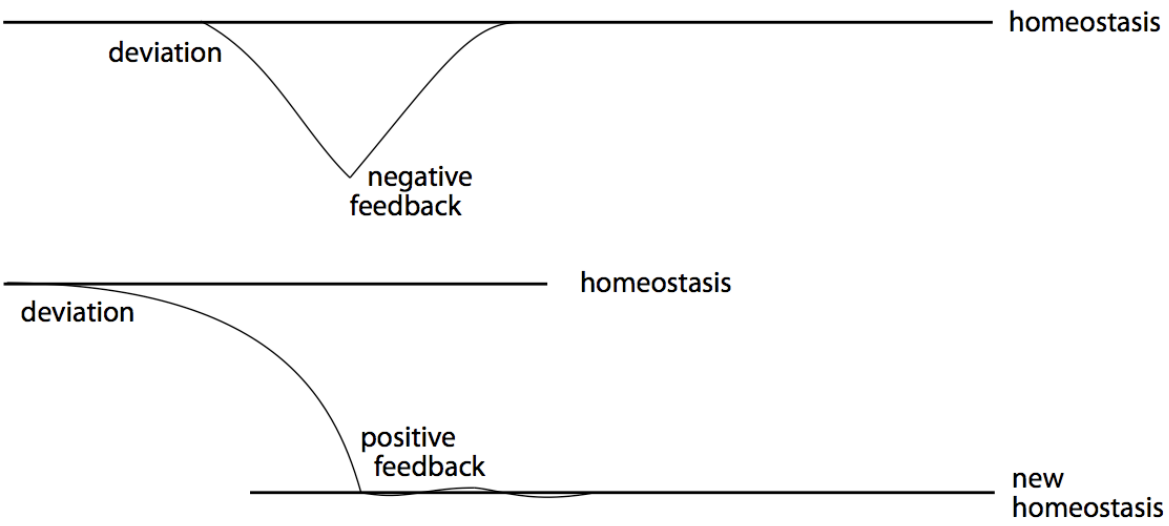


Figure 4: Feedback Loops. Picture found in Dawson, N (2011)

A graphic representation of the flow of input and output between systems, and their impact on each other can be seen in the Figure below. The figure represents the flow of information between the child and parental subsystems within the family system. Behaviour from the child acts as an output from the child subsystem and an input for the parental subsystem. This behaviour elicits feedback from the parental subsystem, which acts as an output from the parental subsystem and an input for the child's subsystem. Positive feedback from either the child or parent leads to a new homeostasis, while negative feedback maintains the original homeostasis. It is important to note, however, that circular causality is implied, and that, as seen in Figure 5, no beginning point with regards to the flow of input and output is noted.

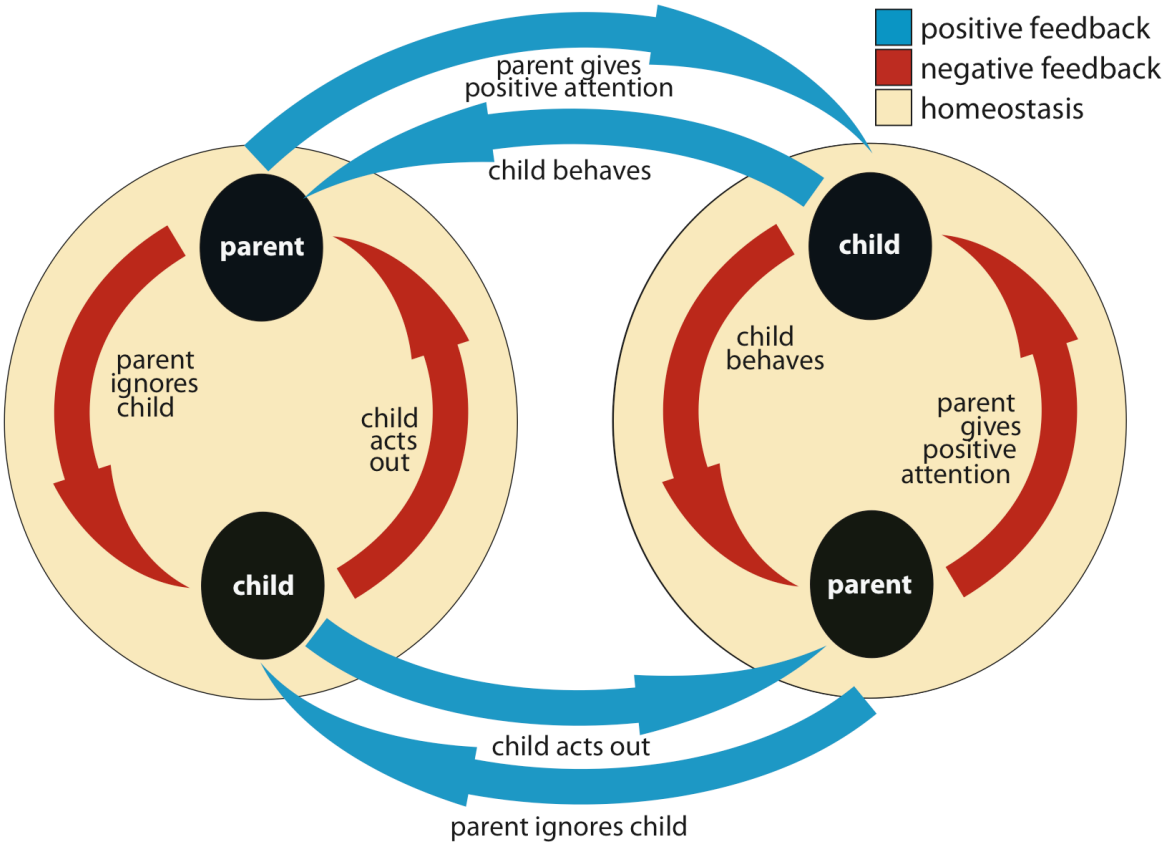


Figure 5: Input and output between systems. Picture found in Dawson, N (2011)

Each system has a unique past, present and future that will affect outcomes (Becvar & Becvar, 2009). Energy is also considered to be used within a system, to maintain it and adapt it to its environment (Becvar & Becvar, 2009). Therefore, systems increase in complexity over time, showing development (Becvar & Becvar, 2009). Similarly to Bronfenbrenner's ecological theory, from an ecosystemic approach, interventions are conceptualised as needing to address various levels in order to facilitate substantial change (Visser, 2007).

3.3 Conclusion

This chapter provided a detailed description of the framework that was involved for the purpose of this research. Bronfenbrenner (1977) postulated that in order to understand human development, the entire ecological system in which growth occurs needs to be taken into account. Each system depends on the contextual nature of the person's life and offers a diverse array of options and sources of growth. Furthermore, there are bi-directional influences within and between each system. These bi-directional influences imply that relationships have an impact in two directions, both away from the individual and towards the individual. The following chapter will provide the reader with the methodology and analytical framework that were involved for this research report.

CHAPTER 4:
METHODOLOGY AND ANALYTICAL FRAMEWORK



"The method of scientific investigation is nothing but the expression of the necessary mode of working of the human mind."- Thomas Henry Huxley

4.1 Introduction

This chapter builds on the preceding review of the literature concerning siblings' perceptions of the impact a fraternal/sibling diagnosed with ADHD has within the family system. In this chapter the methodology and analytical framework that was involved in this study will be described in order to explore the research title in greater detail.

4.2. Research methodology

4.2.1 Design

A qualitative method of investigation was employed for this study. This was due to the fact that qualitative research involves exploring how people make sense of their world and how they interpret and understand certain events and experiences (Willig, 2009). This study falls within the interpretivist paradigm because the aim of the research is to understand and explore the perceptions of siblings of ADHD children (Durrheim, Terre Blanche & Painter, 2006).

4.2.2 Data collection

Data collection is the process of gathering information on variables of interest, in an established systematic fashion, in order to gain the necessary information to answer stated research questions, test hypotheses and evaluate outcomes (Durrheim, Terre Blanche & Painter, 2006).

The qualitative approach requires looking at people's subjective experiences and discovering what is real for them (Braun & Clarke, 2006). This study is premised on the assumption that the experiences of the non-ADHD siblings can best be understood through interaction (Terre Blanche & Painter, 2006). Therefore semi-structured interviews were involved to gather the necessary data (Braun & Clarke, 2006). The semi-structured interview schedule was composed by the researcher and can be viewed in Appendix B. Bronfenbrenner's ecological model of human development was the main theoretical framework involved for the purpose of this study.

4.3. Data analysis

The transcripts of the interviews conducted were analysed using thematic analysis. The researcher identified recurring themes and categorised these within the data rather than identifying coded words (Braun & Clarke, 2006). The thematic analysis involved a process that consisted of six phases:

Table 1: Phases of Thematic Analysis

PHASE	DESCRIPTION OF THE PROCESS
1. Familiarising yourself with data	Transcribing data (if necessary), reading and re-reading the data, noting initial ideas.
2. Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes	Checking the themes work in relation to the coded extracts (level 1) and the entire data set (level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme.
6. Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of

	the analysis.

Table extracted from Braun & Clarke (2006).

The researcher made every attempt to achieve trustworthiness in this investigation.

4.3.1. Trustworthiness

Trustworthiness helps to persuade others that the findings of a study are worth taking into account. Trustworthiness is based on four concepts: credibility, transferability, dependability and confirmability (Shenton, 2004). These four concepts will now be expanded upon.

4.3.2. Credibility

Credibility is similar to the concept of internal validity in that it helps to answer the question; does it "ring true?" (Babbie & Mouton, 2001) To increase credibility for this particular study, the researcher engaged in prolonged exposure to the research material and field of research, checked interpretations against the raw data and additionally consulted with her supervisor. Inter-rater reliability was not completed.

4.3.3. Transferability

Transferability refers to the extent to which the research can be applied to other contexts or other respondents. The researcher provided data sets and descriptions of the data that were rich and thorough enough for other researchers to make judgements about the transferability of the data. In making use of thematic analysis, the researcher's own way of thinking, preconceptions and assumptions are not necessarily viewed as biases, but are rather seen as necessary to making interpretations and to understanding the participant's experiences. In this way the transferability of the study might be questioned. Phenomenological investigation is also questionable in terms of transferability, as there was a relatively small number of participants in the study (Babbie & Mouton, 2001; Durrheim, Terre Blanche & Painter, 2006; Shenton, 2004).

4.3.4 Dependability

Dependability refers to the coherence of the internal process and the way the researcher accounts for changing conditions in the phenomena. It also refers to the fact that if the study were to be repeated with the same or similar subjects in the same or similar context, the findings would be similar. If the researcher follows the techniques identified to ensure credibility, this should establish the study's dependability (Babbie & Mouton, 2001; Shenton, 2004). In order to ensure dependability in this study, the methodology of the study has been well documented. In addition, dependability was sought by ensuring that all the interviews were audio-recorded. Verbatim transcripts of the audio-recordings were made and checked against the audio-recordings.

4.3.5. Confirmability

Confirmability refers to the extent to which the characteristics of the data, as posited by the researcher, can be confirmed by others who read or review the research results (Babbie & Mouton, 2001). This means that the findings are in fact the product of the data and are not influenced by the biases of the researcher (Shenton, 2004). To ensure confirmability, the student left an "audit trail", which means that an auditor will be able to trace all conclusions, interpretations and findings to their sources. The student was careful to supply and record accurately all raw data, data reduction and analysis of products (including field notes, theoretical notes and working hypotheses), data reconstruction and synthesised products (themes, findings, conclusions), process notes, material relating to intentions and dispositions, as well as instrument development information (Babbie & Mouton, 2001).

4.4. Participants

The participants that were involved in the sample will be described below and the number of participants that took part in the research will be noted.

The participants that were involved in this study fulfilled the following requirements: they were in early adulthood, between the ages of 18 and 28, with a reasonable degree of fluency in English and selected from the province of Gauteng. The participants all lived with a sibling who had ADHD, as well as a caregiver or parent in the same household. Parents who had ADHD themselves were included in the criteria, as it is believed that this allowed for rich data and would support or contradict the literature in the study. Parents who had not been formally diagnosed with ADHD were not excluded from the study. This was stated in the

interview process so as to utilise this information in the study. Furthermore, children with a dual diagnosis or associated problems were also included in this study as it allowed the researcher to gain more in-depth knowledge of the topic. Dual diagnosis suggests that the individual has ADHD as well as an associated problem, such as conduct disorder, oppositional defiant disorder and/or other disruptive behaviour disorders (Sadock and Sadock, 2007).

There were no specifics in terms of culture and socio-economic status; however, the researcher wanted a broad range of participants in the study so as to note similarities and differences between the participant's experiences regarding race, age, family make-up and family size.

Table 2: Participant Information Sheet and Biographical Details

Participant Information Sheet					
Participant	Age	Gender	Race	Socio-economic status (SES)	Family size
1	18	Female	Caucasian	High SES	4
2	18	Female	African	Medium SES	7
3	28	Female	Caucasian	High SES	4
4	23	Female	Caucasian	High SES	5
5	22	Female	African	High SES	5
6	18	Female	Indian	High SES	4
7	18	Female	Caucasian	Medium SES	4
8	18	Female	Indian	High SES	5

4.5. General procedures

The first step was to acquire ethical clearance to conduct this study. The University of Witwatersand ethics committee was approached. After ethical clearance had been obtained,

and with the School of Humanities' permission, a notice was sent out to all the first year psychology students in the Faculty of Humanities. Potential participants were then contacted by the researcher and invited to participate. Nine participants contacted the researcher in total, one of which had to be excluded from the study as he failed to mention that he had ADHD himself.

The remaining eight willing participants were interviewed and included in the study. At the outset of the interview, the participants were asked to sign an interview and audio-recording consent form. All the interviews were conducted by the researcher and were done face-to-face. Two of the interviews were conducted at the participants' homes on request. All the interviews were conducted in a space that allowed for quietness and privacy. A reasonable degree of English language fluency was an inclusion criterion for the study. All eight participants met this criterion.

On completion of each interview, transcripts were made from audio-recordings of the interviews. To ensure reliability, the transcripts were read through while listening to the recording (Terre Blanche & Painter, 2006). The transcripts formed the basis for the analysis.

4.5.1 Permission

Permission had to be obtained from the University of the Witwatersrand School of Humanities' first year psychology department to access their students. This was carried out by contacting the coordinator of the department for the first year psychology students. The coordinator was given the research proposal to examine. She confirmed that her students could take part in the study. In order to continue with the report, the researcher's proposal was then examined by external examiners and a clearance certificate was issued to confirm that the research was conducted in an ethical.

4.5.2 Consent

Once permission had been granted by the above, consent from the participants was required before the interview process commenced. This was achieved through the completion of a consent form (see appendix C). For the purpose of this study the researcher needed to consider the issue of informed consent as the participants would be over the age of 18. A recording device was used during the interviews and consent needed to be granted for this (Babbie & Mouton, 2001).

4.6 Ethical considerations

Before commencement of this study, the student needed to obtain a clearance certificate by the Human Research Ethics Committee (HREC). For this study the researcher collaborated with a wide variety of people and thus needed to ensure that she promoted values that were essential for collaborative work.

4.6.1 Privacy

The following issues were considered when the research was conducted.

4.6.2 Confidentiality

The participant has the right to anonymity and confidentiality and it is thus the researcher's obligation to ensure that all information is kept confidential. The researcher therefore made use of pseudonyms during research supervision and in the final report. However, due to the fact that the researcher might have needed to quote from the participant's interview so as to ensure that the research report is a true reflection of the field work that has been done, the subject had to be briefed about this and assured that their names would not be involved in the report; a pseudonym would be inserted in place of the name.

4.6.3 Disclosure

All participants have the right to decide what information they want to share and what has to remain private. This right has been respected throughout the research process. Participants could refrain from answering questions that they found intrusive as they had the right not to answer. They also had the right to withdraw from the study without penalty.

4.6.4 Predispositions and bias

The researcher also needed to be aware of her own biases and predispositions towards the topic of study. It was imperative that any predispositions did not influence the way in which the participants responded, or the analysis and interpretation of the data. The researcher attempted to prevent this by ensuring during data collection that she did not use leading or probing questions or closed-ended questions, and transcribed the participants' responses word for word (Babbie & Mouton, 2001).

4.7 Data storage

The research data that was collected will not be destroyed after the study, but will be kept in a password encrypted file on the researcher's computer for five years after the report has been compiled. After such time the data will be destroyed. Given that consent is granted, a hard copy of the data will be kept in a locked storage facility. The research report will be published online and held in the University library with other students' theses. The participants were informed of this and assured that the data provided would remain anonymous at all times. A summary of the report will be made available to the participants on request. The researcher asked permission from the participants to use the information at conference presentations and explained to them that the results might be published in a journal, but only if consent is given by the participants. If this happens, confidentiality will be ensured and the participants will be informed of this. The quotations will be sanitised and not be traceable to the participants.

4.8 Conclusion

This chapter focused on the methodology and analytical framework that were involved when conducting this study, namely exploring a sibling's perception of the impact a sibling diagnosed with ADHD has within the family system. This chapter provided the reader with insight into how the data was collected and analysed. The results that were collated are presented and discussed in the following chapters**.** Chapter 6 comprises the results from the participants that were interviewed, while in chapter 7 there is an emphasis on the themes that emerged from the data collected. These are discussed in relation to the literature. The purpose of the latter is to analyse the research question and confirm or dispute the literature that has been collected.

CHAPTER 5:
PRESENTATION OF FINDINGS/ RESULTS



"Being siblings may need tolerance, keeping siblings will always need forgiveness."- Jeannette. K. Lancaster

5.1 Introduction

This research comprised an exploration of siblings' perceptions of the impact a sibling diagnosed with ADHD has within the family system. In order to answer the research topic, the results from this chapter were used to address sub-questions one, two and three as set out in Chapter 1. The specific objectives entailed the exploration of the participant's experience with regard to living with a sibling that had been diagnosed with ADHD and the impact he/she had on the family's harmony, resources and interrelationships; the participants' perceptions of the relationship he/she had/has with the caregiver(s) and the sibling, and, lastly, the observations that participants made regarding parenting differences in the home while living with a sibling with ADHD.

5.2 Intra-relational findings

The intra-relational findings, i.e the relationship between family members, presented below are the participants' responses. These findings are presented on the basis of individual face-to-face interviews that took place with each participant. The information discussed below comprises findings that were deemed interesting and relevant for the purpose of this study and would clearly show the emergence of themes.

5.2.1 Participant 1

- **Biographical information**

Age	18	
Gender	Female	
Race	Caucasian	
Lives at home	Yes	
Age of participant when sibling was diagnosed	13	
Age of sibling when diagnosed with ADHD	10	
Parent diagnosed with ADHD	No	(but suggested dad might have ADHD)
Treatment received	No	
Medication for ADHD	Yes	10mg of Ritalin and 72mg of Concerta a day

- **Participant's background**

Participant 1 stated that she grew up with her parents and her younger sister and that she lives at home. She suggested that the home environment had "always been pretty much the same, nothing changed" when her sister was diagnosed with ADHD. She stated that "my sister and I never really got along" and that it did "not have anything to do with the fact that she has ADHD." She went on to say that, despite the medication, their relationship "has not changed much since she was diagnosed, before and after". She was unsure whether her parents had been diagnosed with ADHD, but suggested that her "dad thinks that as a kid he had ADHD".

- **The effect the ADHD sibling in the home had on the interpersonal relationships with the caregiver and participant**

Participant 1 did not believe that her relationship with her parents was different before her sister was diagnosed or after she was diagnosed with ADHD. She stated that there was "not much" difference, but that they are "more vigilant now with both of us". Participant 1 went on to say that they were not worried about her as much but "more about my sister". She articulated that she had a close relationship with both her parents and that if she "thought she

had a problem she would definitely speak to them." She did feel that at times her parents were more protective of her sister if she "got annoyed and lashed out at her". She explained that her parents would express to her that she "had to understand the situation". It appeared that participant 1 was not very aware of her sister's condition and was not properly informed of the diagnosis. It seemed as if the participant had to decipher her sister's behaviour and the ADHD symptoms she presented with on her own. This can be deduced by the fact that she stated "I did not really understand what that was to its full extent. Because I wasn't really informed. My parents did not really tell me what it entailed, and everything".

- **Perception of differential parental treatment between the ADHD sibling and the participant**

Participant 1 did not feel that her parents treated her and her ADHD sibling differently, but they would "monitor her sister more with her work" as they knew that she, being the non-ADHD sibling, was "consistent with her work". She stated that there "is not much discipline that goes on now because there is no need for it now, " but when they were younger there was discipline in an "operant conditioning" manner – "if you do something you get punished for it, or you get rewarded for it". She felt that her parents were "fair" and that "their discipline is fair" and that "it had always been like that". Participant 1 did not feel she was mistreated or that her sister was treated in a manner that was different to her just because of the ADHD diagnosis. In fact, she suggested that her parents could, at times, be stricter with her sister and "reprimand her" and they would "be on her case about it because they know she won't study". Participant 1 believes that her sister needs "that push" and that is why her parents are more concerned with her sister regarding her academics and performance.

- **The participant's role as a sibling after the diagnosis of the ADHD sibling**

Although participant 1 had answered "no" to the question about whether she believed she had a specific role after the diagnosis of her ADHD sister, she did mention that her sister would consider her "bossy", but she was "just trying to help". She felt that it was her responsibility to ensure that her sister was working or studying for exams so that she did not fall behind. However, this led to the belief that participant 1 was "starting an argument", whereas she was just trying to help her sister. This led participant 1 to consider the fact that "maybe sometimes she gets a bit defensive because she knows she has ADHD". She went on to explain that at

times she did take on a caring role, but her sister got annoyed because she "thinks that everyone is monitoring her".

5.2.2 Participant 2

- **Biographical information**

Age	18	
Gender	Female	
Race	African	
Lives at home	Yes	
Age of participant when sibling was diagnosed	Can't remember – primary school	
Age of sibling when diagnosed with ADHD	4 or 5	
Parent diagnosed with ADHD	Yes	mother
Treatment received	Yes	specialist
Medication for ADHD	Yes	Ritalin

- **Participant's background**

Participant 2 stated that her younger stepsister, who is a twin, was diagnosed with ADHD at the age of about four or five. The other twin has not been diagnosed. She has five "siblings" – a biological sister from the same mother and three stepsiblings from a different mother. She currently lives at home with all her siblings as their mother has accepted the stepsiblings as her own. Participant 2's stepsister's mother was diagnosed with ADHD and so she suggested that it was an easy transition as her stepmother knew what the diagnosis entailed.

- **The effect the ADHD sibling had on the interpersonal relationships with the caregiver and participant**

Participant 2 said that the siblings all had a "good relationship". She stated that her relationship with her parents was an "open relationship" in which they "can talk about issues" and one that was "loving and affectionate". However, the ADHD sibling does get treated differently, which will be discussed below, and this causes great frustration and anger among the other siblings in the home.

- **Perception of differential parental treatment between the ADHD sibling and the participant**

Participant 2 made it quite clear in the interview that there was differential parental treatment in the home. She stated that her ADHD stepsibling's mother is "very protective of her" and this is especially seen when it comes to homework. The ADHD stepsibling, according to participant 2, is disciplined in a manner that is different to the rest of the children in the home. They are more lenient with her and when she performs or has a tantrum because they are disciplining her, "they just take away the discipline" and the threats. Participant 2 told her stepmother that she had noticed there was a difference in the way that she treated them, stating "when you punish her you take away the punishment again, whereas with us when we are punished, we are punished; there is no going back." Therefore she believes that the stepmother is inconsistent with her discipline and feels "why should we get punished if her [stepsister's] punishment is not going to stay?" This gives rise to a lot of frustration and anger as participant 2 knows that her stepmother does not accept what she is saying.

- **The participant's role as a sibling after the diagnosis of the ADHD sibling**

Being the oldest sibling, participant 2 suggested that she had to make sure that the younger siblings were tended to and cared for. She stated that she had the responsibility now to ensure that her ADHD stepsibling took her medicine and that she did her homework. This is an added responsibility for her and she expressed that "at first she was a little bit annoyed and irritated about it". She explained that making sure her sibling did her homework was an extra chore and that it "took hours". She stated that "at times she got very irritated and very impatient with her", because she wouldn't listen. Having said this, it appeared that participant 2 also felt she needed to protect her sibling with ADHD, as the younger children did not always understand her behaviour.

5.2.3 Participant 3

- **Biographical information**

Age	28	
Gender	Female	
Race	Caucasian	

Lives at home	Yes	
Age of participant when sibling was diagnosed	20	
Age of sibling when diagnosed with ADHD	16	
Parent diagnosed with ADHD	No	
Treatment received	No	
Medication for ADHD	Yes	Ritalin

- **Participant's background**

Participant 3 lived at home at the time of the interview and stated that she was 20 years old when her younger brother was diagnosed at the age of 16. She explained that the home environment was "pretty tense", especially when they were at school. Her brother needed a routine and it was important that there was structure. She articulated that there was pressure in the home as her parents knew that her brother had the potential to do well, but that the "focus was just not there." She, however, went to university for six years after completing Grade 12 and therefore did not experience what it was like with her brother in the home, during this time. She moved back home after the six years and could then report on what he was like while he was on medication.

- **The effect the ADHD sibling in the home had on the interpersonal relationships with the caregiver and participant**

Participant 3 didn't feel her brother affected her relationship with her parents, but suggested that there was some discrepancy in the way in which her parents handled her brother. She explained that her "mom is quite hands on and my dad is more relaxed". This gave rise to arguments occasionally, as each parent believed that the brother should be doing something differently in a different way. The mother would reinforce the fact that the ADHD sibling should be working, while the father was more relaxed about the matter. Participant 3 suggested that "you have to have that sort of give–and-take between two parents just to balance it out". Furthermore, she affirmed that she had very good and close relationships with her parents and that there was very little tension and stress between her and them.

- **Perception of differential parental treatment between the ADHD sibling and the participant**

Participant 3 did not feel that there was differential parental treatment in the home as such, but did state that "there was more attention on him". This was due to the fact that he had been diagnosed with ADHD and she felt that her parents "were making sure that there was more structure" in the home. She mentioned that they spent "more time with him, explaining that he had to take his medication at this specific time and study at this time". She said that because there was a four-year age gap between her and her brother and she was out of school when he was diagnosed, and because she was at university at this time, she "could not experience much in [terms of] different treatment".

- **The participant's role as a sibling after the diagnosis of the ADHD sibling**

Participant 3 did not feel that she had a particular role to play after her brother was diagnosed with ADHD. She suggested that she felt that "being supportive" was more than adequate and that "even that was not her responsibility". She did not feel that she needed to "to tell him to go and study because that just makes our relationship tense and he thinks that I am not on his side". Furthermore, she felt that she was "not the parent" and so she "should not be forcing that idea on him either". In addition, participant 3 did not feel she needed to protect her brother as she felt there was "enough support from the home side". She did not ever feel that there was "a divide" and that they "were all trying to support him for one goal". Her belief was "not to fight against each other".

5.2.4 Participant 4

- **Biographical information**

Age	23	
Gender	Female	
Race	Caucasian	
Lives at home	Yes	
Age of participant when sibling was diagnosed	Can't remember	
Age of sibling when diagnosed with ADHD	Maybe grade 2 or 3	

Parent diagnosed with ADHD	No	
Treatment received	No	
Medication for ADHD	Yes	Ritalin

- **Participant's background**

Participant 4 stated that she lived at home with her mother and father and her two younger brothers. Her one brother is at university and only comes home for the holidays, but her other brother, who is diagnosed with ADHD, is at school and lives at home. She does not recall the age when her brother was diagnosed, but thinks that he was in Grade 2 or 3. Her mother is a teacher and therefore deals with ADHD children all the time, so the diagnosis did not come as a surprise or shock to the family.

- **The effect the ADHD sibling in the home had on the interpersonal relationships with the caregiver and participant**

Participant 4 could not recall any disharmony in the home environment and stated that the interpersonal relationships in the home remained constant. However, she suggested that "everything revolved around the brother and it almost was like "it had to go his way". She then expressed that "they had to work around it and get used to it". She did not remember ever fighting with her parents about this ADHD sibling and the impact he had in the home.

- **Perception of differential parental treatment between the ADHD sibling and the participant**

Participant 4 suggested that her youngest brother, with ADHD, "got more attention" because he was "the youngest". However, she continued: "But in saying that, us other kids also got attention... it's not that we are outdone by... I think over time it's been shared." She then said that they "all got different treatment" in the way in which they did different activities together. She explained that, as she was the only girl, her and her mom "do shopping and special things like that" and her "brothers, they also get it, so it is not that the one person is being outdone by the other two. We are all equal and we are all seen as the same. No one is more special than the other. And no one gets compared to the other one more, so you are all on an equal basis and we are all equal".

- **The participant's role as a sibling after the diagnosis of the ADHD sibling**

Participant 4 felt that her role as a sibling after the diagnosis was to "just understand that he does have ADHD and whatever he is doing now he can't control. So if he is making a noise or if he is bouncing off the walls... just... that's what he is going through at the moment. So yeah, just get used to it." She believed that her "job" was to learn to come to terms with his behaviour and to recognise what "mood he is in". She suggested that when he is in this "mood" she should just leave him and not "aggravate the situation". Participant 4 also stated that she needed to accept his "moods" and learn to adapt to the situation. If she did not do this and retaliated when her brother lashed out, there would be a "big fight."

5.2.5 Participant 5

- **Biographical information**

Age	22	
Gender	Female	
Race	African	
Lives at home	Yes	
Age of participant when sibling was diagnosed	18	
Age of sibling when diagnosed with ADHD	6	
Parent diagnosed with ADHD	No	
Treatment received	No	
Medication for ADHD	Yes	Ritalin

- **Participant's background history**

Participant 5 lives at home with her mother, younger sister and younger brother, who is diagnosed with ADHD. Her father lives in Zimbabwe and visits when he can. She felt her mother was more understanding than her father with regard to her brother's behaviour. She explained that this was due to the fact that her mother was more "modern" and that her father was "more old-school"; therefore he didn't always understand her brother's behaviour.

Participant 5 comes from a traditional African background, in which ADHD is not recognised as a disorder; “In the African tradition there is nothing like that – the child is just naughty.”

- **The effect the ADHD sibling in the home had on the interpersonal relationships with the caregiver and participant**

Participant 5 stated that her ADHD brother “did not really affect” the relationship she had with her parents and other sibling, although she remembered that at the onset of the diagnosis she “did not agree” with her dad completely and the perception he had of his son. Furthermore, she stated that she had arguments with her mother “a couple of times” with regard to the way in which she would allow her brother to get away with certain things and “make excuses for the naughty behaviour”. Participant 5 believed that her mother was too lenient and this gave rise to frustration and a slight animosity towards her mom and brother.

- **Perception of differential parental treatment between the ADHD sibling and the participant**

Participant 5 said she did think there was a difference in the way in which the children were treated. Participant 5’s mother argued that she treated them all differently because they were “all different people, no-one is the same”. According to participant 5, her mother believed there were “certain things” she could let this one child do, because “she knew that they (sic) could handle it or they (sic) know what they (sic) are doing”. However, she felt that her mother was very lenient with her ADHD brother and that his punishment was never as severe as that of the other children. She stated that although her dad was the disciplinarian, her mother could also be firm and “knew when to put her foot down”. She explained that there was structure in the home, but her brother was still allowed to deviate from the discipline and punishment that was prescribed. Her mother’s explanation for this would be that “he is just a kid” and this would make participant 5 irritated and annoyed because she knew that she would have been punished if she had done the same thing.

- **The participant’s role as a sibling after the diagnosis of the ADHD sibling**

Participant 5 suggested that she did feel she had a role to play after the diagnosis of her ADHD brother. She felt that her role was to be more understanding of him and his behaviour. She explained that she would “snap a bit” and automatically assume that he was being naughty. She said her mother would have to “sit her down” and remind her to be more patient

with her brother and to be "a bit nicer" to him. She admitted that she would treat him badly "without even realising it". Therefore, she felt that she needed to change her own mindset and the way in which she responded to her brother and his diagnosis.

5.2.6 Participant 6

- **Biographical information**

Age	18	
Gender	Female	
Race	Indian	
Lives at home	Yes	
Age of participant when sibling was diagnosed	7 or 8	
Age of sibling when diagnosed with ADHD	4	
Parent diagnosed with ADHD	No	
Treatment received	Not sure	Participant 6 thinks a psychologist was contacted to inform the family as to how they should go about controlling the brother
Medication for ADHD	Yes	Ritalin

- **Participant's background**

Participant 6 stated that she had a good relationship with her parents and her younger brother, with whom she lives. She said that her brother was very naughty as a child and "would bully" her when she "was smaller", despite the fact that she was older than him. He was diagnosed with ADHD at the age of four and was said to be very irritating and destructive. He would "throw tantrums and get very angry for a four year old".

- **The effect the ADHD sibling in the home had on the interpersonal relationships with the caregiver and participant**

Participant 6 felt that there was a change in the relationship she had with her parents. She thought they were "a bit dumb to be fooled by a four or five year old" and so she became "a lot less reliant on them for everything". She explained that even with her homework she "did not want their help". She stated that she "felt a bit bitter" towards them for always defending the brother and taking his side. She said that she developed this attitude: "Just go help your son; he needs you more than me." She went on further to explain that she "became less reliant on them not only regarding schoolwork and stuff" that she needed, but "even for social stuff". She felt that she had to grow up faster than other kids her age and she stated that she felt a bit of resentment because of this.

- **Perception of differential parental treatment between the ADHD sibling and the participant**

Participant 6 felt that there was definitely a discrepancy between her and her brother, and the way in which they were disciplined and treated. She got the feeling that her parents would always give in to her brother and that he always got his own way. She explained that there were times when they were shopping for stuff for her and if the brother got tired or bored they "would have to go home". This made her feel "jealous in a way" and she felt "cheated out of a lot of things because he had ADHD" and she didn't. She explained that at the time she felt it "was unfair" to her. Participant 6 admitted that she was jealous of the fact that her brother got what he wanted and her "needs would be ignored".

She went on to explain that her parents were "quite strict with manners and stuff" and so there was a certain way in which they had to behave, especially around the dinner table. However, when her brother got bored, he was allowed to remove himself from the table while she "had to stay and talk to the parents" even though she also wanted to do some other activity such as watching TV. She also suggested that her parents were stricter about her academic work than about that of her brother. Participant 6 stated that when she was in Grade 1, she had to do "a minimum of an hour of homework every day" and even if she did not have homework to do "they made stuff" for her to complete. Her brother, on the other hand, would finish only half of the required work and when he did not want to do anymore her "mom or dad would do the rest for him". In addition to this, she felt that she could have

benefitted from additional support such as a tutor, but her parents insisted she did the work on her own. However, her brother "has four different tutors, one for each subject".

- **The participant's role as a sibling after the diagnosis of the ADHD sibling**

Participant 6 could not identify any particular role that she felt she played after the diagnosis. Her main aim was to be independent and to rely on herself rather than anybody else. She explained that she did not feel she had to protect her brother in any way after the diagnosis, as she stated that her "parents were always super protective of him and for him". Therefore, she felt that she didn't "have to do that" and her parents would "reprimand him when he got out of control."

5.2.7 Participant 7

- **Biographical information**

Age	18	
Gender	Female	
Race	Caucasian	
Lives at home	Yes	
Age of participant when sibling was diagnosed	7	
Age of sibling when diagnosed with ADHD	5	
Parent diagnosed with ADHD	Mom has symptoms	
Treatment received	Read books	
Medication for ADHD	Yes	Ritalin

- **Participant's background history**

Participant 7 explained how her younger brother's ADHD severely impacted the family. She grew up with her mom and dad and brother, until her brother's ADHD got out of control. She expressed that her parent's disciplinary style was so different that it led to a divorce. She went on to state that she and her brother had a very hostile relationship and that even the "grandma does not like him" because of "how naughty he was when he was young". After

the divorce, participant 6 lived with her mom, brother and grandmother, and saw very little of her father because her mother "did not want him in our lives".

- **The effect the ADHD sibling in the home had on the interpersonal relationships with the caregiver and participant**

Participant 7 felt very strongly about her response with regard to this matter. She stated that the relationship between her and her mom was extremely strained and that it was always "her [mother] and him [brother] against me". She suggested that during a period of about a year when she lived with her mother on her own, they "were very close", but as soon as her brother moved back into the home, the relationship deteriorated. She said that her mother would "incessantly pick on" her and her "brother would do the same thing". However, the relationship between her and her father never changed, "it was always very strong", even when her brother was there. She stated that her dad would always give her "special treatment" because of the way her mother treated her brother.

- **Perception of differential parental treatment between the ADHD sibling and the participant**

Participant 7 described the relationships at home as very tense, especially with her mom and her brother. She exclaimed that her "mom was very attached" to her brother and "loved him very much so she did not want to discipline him". Participant 7 stated that her mother "would rather give him free rein". She explained that her grandmother and her dad would discipline her and yet her brother was allowed to do whatever he wanted to. In addition to this, she said that her brother "always got more attention because he wanted more attention", especially from the mom. She felt as though it was always her mom and her brother as a unit and she was not included. She went on to explain that she still went for therapy because of how she was brought up and because of the relationship her mom and her brother had. She was also put into a rehabilitation centre for drug abuse, which she said was due to the rejection that she felt in the family. She exclaimed that her "mom was very nasty" and that her house was "toxic". The mother was always very protective of the brother, according to participant 7, because she felt her son "could not protect himself". She stated that her dad felt "a bit of resentment" towards her brother as he felt that "this was the child that kept him in a very unhappy relationship". Participant 7 insisted that her mother did not believe that she gave her brother preferential treatment, "even to this day". The participant believes that her mother

had a very difficult childhood, as her mother (the participant's grandmother) was extremely strict and therefore she felt that she needed to change the discipline strategy that was used on her as a child.

- **The participant's role as a sibling after the diagnosis of the ADHD sibling**

This participant felt she had to take on the motherly role and discipline her brother, as she stated that he did not receive this from their mother. She expressed that she was "always the disciplinarian with him, even now". However, this did not come without its own set of challenges, as the brother showed resentment towards her, because she was "always the disciplinarian and the mom was not".

5.2.8 Participant 8

- **Biographical information**

Age	18	
Gender	Female	
Race	Indian	
Lives at home	Yes	
Age of participant when sibling was diagnosed	15	
Age of sibling when diagnosed with ADHD	13	
Parent diagnosed with ADHD	No	
Treatment received	No	
Medication for ADHD	Yes	Ritalin

- **Participant's background**

Participant 8 grew up in household where domestic violence was a common occurrence. She has a mother, a father and two siblings. She has a younger sister and an older brother who now lives in England. The participant stated that her home was not filled with "good relationships" because of the domestic violence. She explained that her mom and her brother were victims of the abuse at the hands of her father. She exclaimed: "When my father was

angry he would attack my mom and my brother. He would hit my mom if she was rude." She expressed that she "couldn't remember much but it was very intense".

- **The effect the ADHD sibling in the home had on the interpersonal relationships with the caregiver and participant**

Participant 8 insisted that her sister "got more attention". She stated that she would "only have a problem with it" when she needed her parents "and they would not give the attention" that she needed. Participant 8 felt that her parents were always there for her sister but not for her. She expressed that her parents "would brush off" what she needed and explain that "everything is okay". Therefore, it is fair to say that participant 8's interpersonal relationships were affected by her ADHD sibling.

- **Perception of differential parental treatment between the ADHD sibling and the participant**

This participant suggested that her sister got a lot more attention than the other siblings. She stated that she "did not have a problem" with it, unless she needed her parents and they were not there for her. She expressed that when all the attention was on her sister and she was not considered, it made her feel "a little sad and a bit angry". However, she said that she "did not dwell on things and would just ignore it". She explained that she is a passive person and would not do anything when her sister would demand the attention of her parents. She "would go to my room and do my homework" in order to distract her from the resultant negative thoughts. Her mother was more of the disciplinarian in the home. She stated that her father was just a "male figure" rather than a father. This was until recently, when he realised that he needed to contribute to the family.

- **The participant's role as a sibling after the diagnosis of the ADHD sibling**

Participant 8 suggested that her biggest role was to "be there" for her sister and to support her. She felt that she could be that "someone to lean on" and to offer guidance and supervision when it was needed. However, this was to the detriment of participant 8, as she was not able to grow up as a "normal" child. She had to grow up prematurely in order to cater to her sister's needs. She felt that she had to be there emotionally for her sister and protect her from the abuse and violence that occurred in the house. She stated that when this happened,

she would “take her to her room and take care of her”. Participant 8 had to provide her with answers as to what was happening and why it was taking place in the home.

5.3 Summary of inter-relational findings

In the exploration of inter-relational dynamics, it was found that among the majority of the participants there was some level of differential parental treatment. Some participants mentioned that it was not severe, while others noticed a drastic difference between the way in which they were treated and the way their ADHD sibling was treated. This was often due to the fact that the ADHD sibling required more attention. This had a profound effect on the relationships that the participant had with their caregivers. Many of the participants stated that their caregivers had very little time for them and were preoccupied with the ADHD sibling. This gave rise to strained relationships in the home and, in some, a sense of rejection. These themes that emerged will be discussed in Chapter 7 in relation to the existing literature in an attempt to address the research objectives stated in Chapter 1 and to explore the siblings’ perceptions of the impact a fraternal/sibling diagnosed with ADHD has within the family system.

5.4 Conclusion

This chapter consisted of an outline of the participant’s responses to the research questions. These responses were expressed during the individual face-to-face interviews that took place with each participant using the format of a semi-structured interview that guided the interview schedule. A process of thematic analysis was used to interpret the data. It was noted that the participants responded differently to the questions presented to them; some were more open and candid with their responses, while others were more private and anxious to speak about their personal experiences.

The themes that emerged, which will be discussed further in detail in the next chapter, include: the participants’ perceptions of whether there was differential parental treatment in the home, the role of the sibling in the home after the diagnosis of the ADHD sibling, the parenting styles used in the home, and the use of stimulants and treatment received.

With regard to the inter-relational findings and extrapolating recurring themes that emerged from the data, it was found that many of the participants had similar experiences. This resulted in a range of themes, which are presented and discussed in the next chapter. Chapter

6 therefore, will be focussed on the description and interpretation of the various themes that emerged from the data through thematic analysis. These extracted themes are supported by quotes from the raw data to qualify and validate them and will be discussed in relation to the existing literature.

CHAPTER 6:
DISCUSSION AND INTERPRETATION OF FINDINGS



"When we change the way we communicate, we change society."- Clay Shirky

6.1 Introduction

In this chapter the various themes that emerged from the interviews that were conducted with eight participants will be discussed. All the responses from the individual interview transcripts were analysed by means of thematic analysis. This form of analysis results in a descriptive presentation of qualitative data, because it involves gathering the thematic content from the interview transcripts by identifying common themes (Anderson, 2007).

The findings are explained in terms of the themes that emerged in relation to the existing literature. This chapter has been divided into four sections. Section 6.2 comprises a brief description of the eight participants' biographical information, while section 6.3 explores the various themes that emerged from the thematic analysis, using the questions from the interview schedule as a guideline. The themes that were extracted from the interview transcripts are supported by quotations from the raw data to qualify and validate them, and they are integrated into the existing literature. Section 6.4 concludes the chapter with a summary of the findings.

6.2 Biographical information of participants

Eight participants who were the siblings of a diagnosed ADHD individual volunteered to be interviewed for the purposes of this study. These individuals, aged 18-28 years of age, were selected from the province of Gauteng. All eight participants were female. The majority of them were 18 years of age and each one had a younger sibling who had been diagnosed with ADHD. They were from various socio-economic, ethnic and religious backgrounds.

The biographical details of the various participants are tabulated below.

Interviewee	Race	Age	Gender	Province	Number of siblings
Participant 1	White	18	Female	Gauteng	1
Participant 2	Black	18	Female	Gauteng	4
Participant 3	White	28	Female	Gauteng	1
Participant 4	White	23	Female	Gauteng	2
Participant 5	Black	22	Female	Gauteng	3
Participant 6	Indian	18	Female	Gauteng	1
Participant 7	White	18	Female	Gauteng	1
Participant 8	Indian	18	Female	Gauteng	2

6.3 Findings based on interviews

The researcher extrapolated themes from the data that had been obtained through the interviews with a view to ensuring that the research questions that were mentioned in chapter 1 were answered. Themes that emerged from the data were assessed and reassessed by the researcher to ensure congruence throughout, in order to establish the reliability and validity of the findings presented below.

Several themes related to the non-ADHD sibling's perceptions of the impact a sibling diagnosed with ADHD has on the family system were identified and analysed. Some of the themes were preconceived, while others surfaced with the aid of the semi-structured interview schedule and some emerged spontaneously. An emergent approach allows the categories to emerge from the data during analysis. Categories or themes are defined after recurring ideas are found to be pertinent to the research findings.

The themes are divided into superordinate and subthemes, all of which are grouped around:

1. The themes that emerged from the questions asked about whether there was differential parental treatment between the ADHD sibling and the participant

2. The themes that emerged from the questions asked about the role the sibling had to play after the ADHD sibling was diagnosed
3. The themes that emerged with regard to various parenting styles and structure in the home
4. The themes that emerged with regard to stimulants and treatment

The predominant and overarching theme that emerged from the research was the differential parental treatment that took place in the home. This will therefore be explored first.

6.4.1 Theme: The participants' perception of whether there was/is differential parental treatment in the home

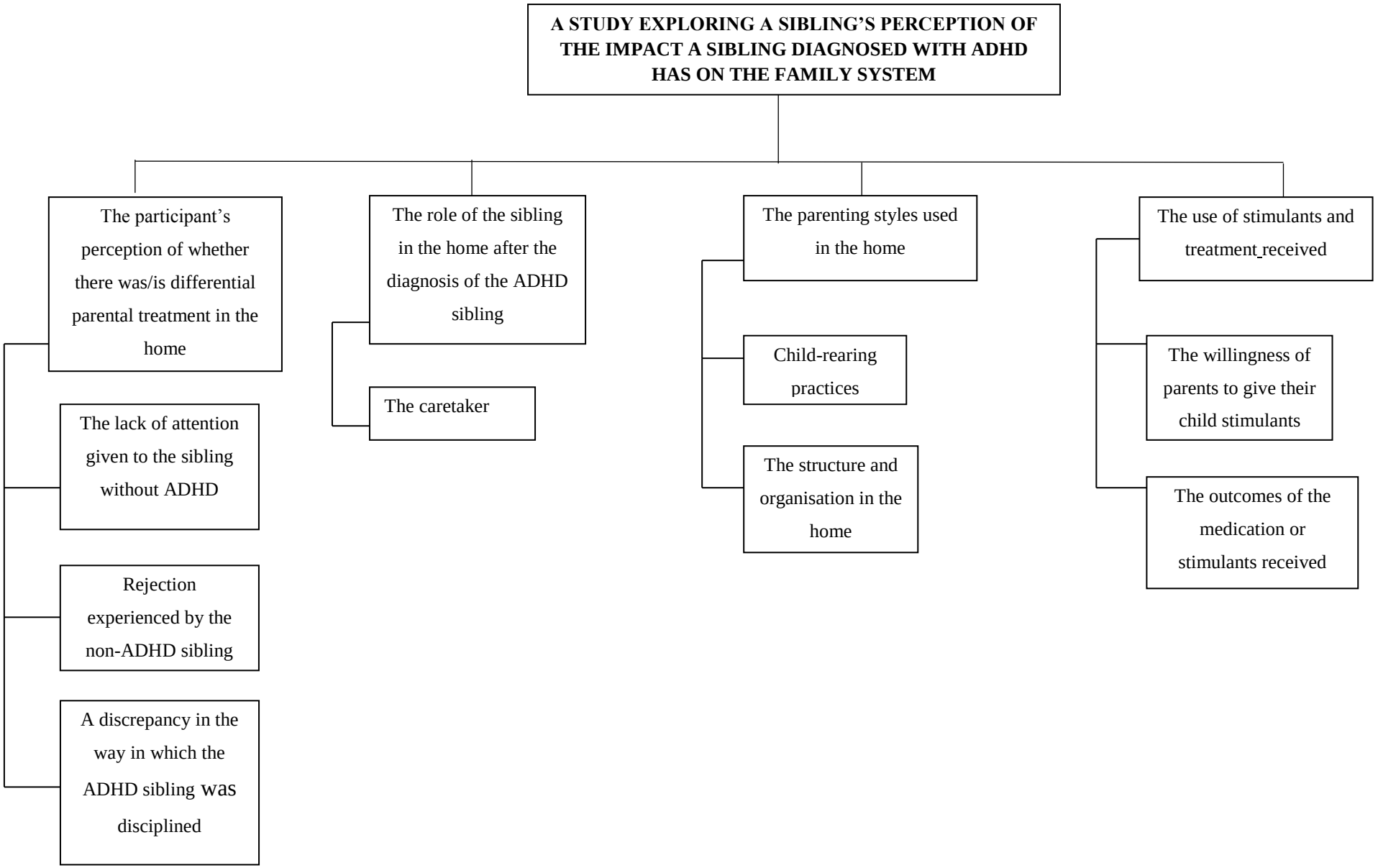
With respect to siblings' experiences of reduced parental attention, there have been consistent reports by siblings of children with disabilities that they felt that they were deprived of their parent's time and attention, as noted by Schuntermann (2007). Differential treatment by parents has also been the subject of empirical research by authors such as Kendall (1999) and is an important consideration in this research.

It was clear from the interviews with the participants that many of them perceived a difference in the way in which they were treated by the parent/caregiver. In most cases, the participants reported that their ADHD sibling got more attention than them or that their caregivers were too lenient with the ADHD child compared with the way in which they were disciplined. The subthemes for this main theme indicate the various aspects of differential parental treatment, including: a lack of attention, feelings of rejection and the leniency of the parents towards the ADHD child.

a) The lack of attention given to the sibling without ADHD

Schuntermann (2007) states that children are vigilant, from a young age, about the ways in which they and their siblings receive parental affection, attention and discipline. Furthermore, he suggests that sibling relationships are likely to be compromised when children foster negative attributions to differential parental treatment (Schunterman, 2007).

As noted in 2.10 (i) above, one study found that 10 of the 13 siblings (brothers and sisters) interviewed thought they were "severely and negatively" affected by living with a sibling who had ADHD. The aforementioned study found the most significant problem identified by


A STUDY EXPLORING A SIBLING'S PERCEPTION OF THE IMPACT A SIBLING DIAGNOSED WITH ADHD HAS ON THE FAMILY SYSTEM
The participant's perception of whether there was/is differential parental treatment in the home
The lack of attention given to the sibling without ADHD
Rejection experienced by the non-ADHD sibling
A discrepancy in the way in which the ADHD sibling was disciplined
The role of the sibling in the home after the diagnosis of the ADHD sibling
The caretaker
The parenting styles used in the home
Child-rearing practices
The structure and organisation in the home
The use of stimulants and treatment received
The willingness of parents to give their child stimulants
The outcomes of the medication or stimulants received

siblings was the disruption caused by the behaviour of the child with the condition. Examples of this disruptive behaviour included physical and verbal aggression, out-of-control hyperactivity, emotional and social immaturity, academic underachievement and learning problems, family conflicts, poor peer relationships and difficult relationships with extended family (Johnston et al., 2012 & Kendall, 1999).

According to the literature by Johnston et al., 2012 & Kendall, 1999, children with ADHD also tend to get into more fights with siblings. This happens for two reasons. Firstly, ADHD children tend to argue more than non-ADHD ones. Secondly, children might tire out as a result of their ADHD sibling's impulsive or inappropriate behaviour. That has been found to be common (Barkley, 2000). Children might not understand that ADHD is nobody's fault.

It is suggested that the non-ADHD child can feel baffled and frustrated by their brother or sister's behaviour, feel pressure by the expectation to be a "good" child, or even get jealous at all the extra attention they perceive the parent to be giving the other child (Kieling & Rohde, 2010). It is common for the non-ADHD sibling to take on more than they should, to try and help, especially if they are the older sibling and that can lead to feelings of resentment. In addition, they might feel stress over any change in routine, such as a holiday, because of what it can do to their brother or sister's mood and actions (Kieling & Rohde, 2010).

In the interviews conducted for the current study, the non-ADHD siblings affirmed that they felt their ADHD sibling "got more attention" and that resources were provided for their sibling but not for them, despite the fact that they too needed extra help. One participant felt that her parents "would brush off" what she needed, yet they would do everything for her sister. This in turn affected the relationship between the non-ADHD sibling and the parent(s).

This was borne out by the current study. Numerous participants mentioned the fact that their ADHD sibling required "more attention" and received it from the parent/caregiver. For example:

Participant 4: *"[...] he got more attention"*

Participant 7: *"[...] he always got more attention because he wanted more attention"*

Therefore, despite the gap in the literature regarding sibling's accounts of their ADHD siblings, there is evidence from the participants that took part in the study as well as

Schuntermann's study to confirm that there are common features with regard to parenting and the way in which the non-ADHD child perceives a discrepancy in the way in which the children are treated.

With respect to the theory, one can therefore make meaning of the fact that each member of the family system plays such a crucial role in the formation of the relationships between individuals. As Bowen (in Titelman, 1998) suggested, an individual's behavioural pattern will have a resounding effect on the rest of the family members. As a result, each member of the family system will be treated according to their needs. As it has been stated throughout the study, an ADHD child requires more time and effort from the family due to their condition. As such, the non- ADHD sibling may be disadvantaged and treated differently by the parents as their sibling has attracted all the attention. This may lead to dysfunction in the family system in which homeostasis is not maintained.

b) Rejection faced by the non-ADHD sibling

Darling (2007) suggests that families that include children with ADHD have a greater number of behavioural, developmental and educational disturbances to contend with. Consequently, more time, money, energy and logistics are required in order to deal with the disorder appropriately. This often includes interventions such as a special school, medication and extra support for both the child and the family (Dyson, 2010). These measures may be a financial strain which could end up affecting the non-ADHD sibling and the whole family (Kendall, 1999). In Kendall's study (1999) there were reports of the non-ADHD sibling being denied certain opportunities as the financial burden on the family were too great. This in turn may affect the relationships within the family unit.

According to research by Johnston et al. (2012) and Kendall (1999), each sibling within the family system is likely to respond differently to the child with ADHD. Due to the fact that the non-ADHD sibling is likely to receive less attention than their ADHD sibling, this might give rise to feelings of rejection (Harpin, 2005).

Once again, this was borne out by the current research. Participant 7 reported that her feelings of rejection were so severe that she started to abuse drugs and alcohol in order to fill the void in her life: "*Because of my addictive personality I became very addicted. I think it is because of all the rejection I felt from my mom,"* In addition to this, participant 6 stated that she

remembered "*just going and hiding and crying and stuff. I remember there was this one little cupboard on the floor in my mom's room that did not have anything in it. This used to be my crying spot. So I would just go and retreat in there".*

It was evident from the way in which the participants articulated their concerns that they perceived themselves to be a hindrance to their parents, because their ADHD siblings needed the assistance and support as they were the ones with the disorder. Participant 7 had to seek professional help for her fears of rejection and the way in which it played out in other areas of her life. *"I actually still go for therapy for it today. I felt very left out. I felt very rejected by my mom. So, she was very nasty."* This was due to the fact that her mother favoured her brother in a more visible manner. However, despite the participants' feeling that they were more of a liability than an asset, they were frequently relied upon to nurture, protect and care for their ADHD siblings.

These findings are significant in relation to Bronfenbrenner's ecological framework (see *chapter 3* above), in terms of which the development of an individual is the "product of interaction between the growing human being and its environment" (Bronfenbrenner, 1979, p.16). It is the manner in which individuals and organisations interact with the child that has a profound effect on the way in which the child develops. The way in which the parents treat their child has a profound effect on the way in which their child will develop and establish themselves later on in life. Thus, the more encouraging and nurturing these interactions are with the child, the greater the benefit will be for the child concerned (Bronfenbrenner, 1977).

As seen by participant 7 in the current study, the way in which her microsystem was organised did not allow her to establish a healthy relationship with her mother. As such, her perceptions of what the world looked like and how she developed emotionally was different to that of somebody who was raised in a nurturing environment. This then dovetails into the next subtheme below, as it reiterates the effect a parent might have on a child if he or she is not brought up in an environment that facilitates growth and development in a healthy manner.

c) A discrepancy in the way in which the ADHD sibling was disciplined

According to the literature, children with attention ADHD are notoriously difficult to discipline (Harpin, 2005). Due to the effects of the disorder, it is hard to get some children to even listen to the reasons for which they are being punished. Furthermore, the consequences can be hard to enforce with children who are easily distracted (Berk, 2009). Therefore, parents often find it easier to dismiss trying to discipline the ADHD child in the same way that they control their non-ADHD offspring.

Similarly, one of the main concerns that were expressed by several of the participants in the current study was the fact that the ADHD child would receive few consequences of bad behaviour when it came to homework, chores and punishment.

Participants who were interviewed for the current study reported that their ADHD sibling could do things that they were never allowed to do when they were younger, purely as a result of the ADHD diagnosis. Examples of such behaviour that were given by participants are listed below:

Participant 2: *"[…] they just take away the discipline"*

"…when you punish her you take away again the punishment (sic) whereas with us when we are punished, were are punished. There is no going back."

Participant 5: *"[…] they make excuses for the naughty behaviour"*

Participant 6, talking about homework: *"When he did not want to do anymore […] mom or dad would do the rest for him"*

Many of the participants expressed that they would speak to their parents about the discrepancy in the way in which they were disciplined and would mention that they could see that there was a significant difference in the way in which they were being treated. However, the parents would often create an excuse or try and justify their own behaviour. This resulted in an angry, irritated and often frustrated sibling.

The participants' responses are significant in relation to the systems theory, in terms of which changes to one part of the system are thought to affect the whole system (Greif & Lynch, 1983; Visser, 2007). This can be seen in the way in which the ADHD child behaves and acts within the family system and how they had a profound effect on the rest of the family unit. It

was evident, from the participants that took part in the current study that their ADHD sibling did contribute to the way in which they felt not only about their parents, but their sibling, too.

It can then be said that the effects the participants felt, negatively impacted the parent-child relationship and altered the child's perceptions towards the caregiver that was instilling authority. Furthermore, this hindered the non ADHD individual's development as the relationships within different parts of the microsystems were not working together for the good of the child.

6.4.2 Theme: The role of the sibling in the home after the diagnosis of the ADHD sibling

Attention deficit/hyperactivity disorder (ADHD) can affect all aspects of a child's life. The adverse effects of ADHD upon children and their families change throughout the years, with varying aspects of the disorder prominent at different stages (Berk, 2009; Harpin, 2005). ADHD not only impacts the individual, but imposes difficulties on the parents/caregivers and siblings that might result in disturbances within the family. Often the parents/caregivers have many of their own life stressors which results in the sibling being given the role as the parent/caregiver (Cushway & Earley, 2002).

It was evident throughout the interviews that many participants experienced difficulties with regards to the caring of an ADHD child. They felt that they had a responsibility toward their sibling and that they had to supervise them when the parents/caregivers were not able to. The sub-themes below will differentiate the ways in which siblings had to mature in order to account for their ADHD sibling as well as looking at the way in which the participant had to act as the peacemaker in the home when other siblings did not always understand the behaviour of their ADHD sibling.

a) The caretaker

Jurkovic (1997) defines parentification as "a process with adaptive caretaking dependent upon the recognition of the child's contribution and the extent and duration of caregiving" (Cushway & Earley, 2002, p. 165). The result of overburdening the child is a shaping of the child's inter-relational style in both the immediate and the long-term setting. This stood true for several participants that took part in the research.

In previous studies, many siblings reported feeling unprotected by their parents, who were perceived as too exhausted or overwhelmed to intervene (Johnston et al., 2012 & Kendall, 1999). This is supported by participant 2 who stated that "*I was the one who took care of things. I was the one who gave her her medicine",* and by participant 7, who explained that she was *"… always the disciplinarian with him, even now"*.

According to the literature, disruptions also arise for siblings due to expectations that they act as caretakers for their brother or sister with ADHD (Abdolahian et al., 2011 & Kendall, 1999). Similarly, in the current study older siblings reported that their parents expected them to play with and supervise the child with ADHD. Other caretaking activities included giving medication and helping with homework. This is exemplified by the participants' experiences below:

Participant 2: "*At first I was a little bit annoyed and irritated about it because now I had more responsibility, making sure that she is taking her tablets and stuff like that. And I also helped him with his homework and stuff so, whenever we had to do the homework and helping out with stuff it just took hours".*

The responses of the participants that took part in this study made it evident that many of them felt that they had an obligation to look after their ADHD siblings and do what the parent/caregiver could not. Participant 8 explained how she had to "take her to her room and take care of her" in order to protect her sister from the violence in the home.

In previous studies it was found that the siblings also felt their parents expected them to be independent and self-sufficient. They often felt ignored or overlooked, because their needs seemed less significant than those of their sibling with ADHD. They reported that they tried not to be a further burden on their parents (Harpin, 2005). This was confirmed by the current study. For example participant 6 said:

"…my parents always did what my brother wanted and my needs would be ignored" (Participant 6).

With this being said, it goes against the pivotal point that Bronfenbrenner so clearly demonstrates in all his writings. He believes that the primary relationship should ideally be fostered by a person that is within the child's immediate sphere and is one that involves a

complexity of interaction. He further states that this should ideally be provided by primary adults such as the parent or immediate caregiver (Paquette & Ryan, 2001). In the South African context today, this is not always feasible, due to HIV, parents working long hours, death of family members and absent parents. Addison (1992), suggested that due to these challenges particular to our South African context and specifically related to "at risk" communities, children might not find the affirmation that should be present in the child-parent (or child/other important adult) relationship and might consequently search for it in dangerous places. This was clearly portrayed in the way in which participant 7 dealt with her feelings. She turned to drugs in order to provide herself with direction and a feeling of acceptance.

6.4.3 Theme: The parenting styles used in the home

The importance of parenting and the way in which the parent responds to and interacts with the child can be crucial to the child's development and the relationships that they foster with their caregivers and siblings (Berk, 2009). However, parents have different techniques for dealing with their offspring and these parenting styles can contribute to the familial relationships and experiences in the home environment.

Parents' and caregivers' methods of discipline and childrearing are considered one of the most important factors for evolving and behavioural problems that are persistent in children (Abdolahian et al., 2011). As noted above, Baumrind (cited in Abdolahian et al., 2011) differentiates between parents' methods of controlling performance by identifying three different parenting styles namely: authoritative, authoritarian and permissive.

It was therefore interesting to note that the parents or caregivers of the participants in this study all had different methods and means to discipline their children. They had different beliefs about how to parent their children and based their parenting on factors such as tradition, the way in which they were disciplined as a child and methods they incorporated into the home to benefit the ADHD child.

This is the final level of Bronfenbrenner's ecological system, which deals with the largest and most remote people and things that have an influence over a child's life. Cultural values and the relative freedom they provide all play their part in this system. There is a positive and negative influence on the child from the macrosystem. One can therefore see that a person's

culture and their traditional beliefs will also have a vital role to play in the way in which the child is brought up. Parents and caregivers often base their parenting styles on their upbringing and this can influence the child's development and growth.

a) Child-rearing practices

In section 2.8 above, one can see that the way in which a parent disciplines and raises their child, may have lasting effects. In general, children do better in life if they come from a home in which there is positive (authoritative) parenting.

As a parent of a child with ADHD, it is likely that learnt effective coping strategies can be developed for dealing with the child's possible erratic and stressful behaviour. If that child has siblings, however, they might face their own set of difficulties (Kieling & Rohde, 2010). They might struggle to understand why their family dynamic is different from their friends' families and why their sibling's bad behaviour has only minor consequences.

The participants in the current study had varying experiences with regard to parenting styles and different explanations as to why they thought that their parents used different types of discipline on their ADHD sibling and on themselves. From what was obtained in the face-to-face interviews, all three parenting styles namely: permissive, authoritarian and authoritative were noted throughout the study. For example, participant 1 stated:

Participant 1: *"When we were younger there was discipline in an operant conditioning manner – if you do something you get punished for it, or you get rewarded for it"*

Participant 5: *"[…] my mother was more modern and my father was more old school, so he didn't always understand my brother's behaviour"*

"[…] in African tradition there is nothing like that – the child is just naughty" (Participant 5)

Participant 6: *"[…] quite strict with manners and stuff"*

Furthermore, each parent had his or her own role to play with regard to the disciplining of the children in the home. The participants had noted which parent was the strictest and who was

the more lenient and relaxed parent, as Participant 3 noted: *"Mom is quite hands on and my dad is more relaxed"*. Participant 4 stated that *"we are all different people, no one is the same"* and therefore she believed that was the reason for her parents' parenting discrepancies. Furthermore, Participant 7 expressed that her parent did not use disciplinary methods and stated that *"she loved him very much so she did not want to discipline him […] my mother would rather give him free rein"*.

This may be better explained using Bronfenbrenner's ecological model, namely the microsystem "layer". The microsystem refers to all the settings in which a child personally interacts and is influenced. Thus, the microsystem marks the reciprocal interplay between an individual and their immediate setting, including their home or school, and all the activities and interpersonal relations that exist within this immediate setting (Bronfenbrenner, 1977; 1979).

In relation to the above mentioned, one of the reasons for which the participants were asked whether a parent had ADHD was due to the fact that it is genetic (Kieling & Rohde, 2010; Sadock & Sadock, 2007), but the researcher also wanted to determine what the home environment might be like. It is well documented that ADHD symptoms that are present in adults are associated with significant impairment across spheres such as academic achievement, interpersonal relationships, a less optimal parenting style, higher levels of family conflict and less family cohesion (Buitelaar et al., 2013; Johnston et al., 2012). Therefore, this was important to note as one needed to determine what the contributing factors were for the way in which the children were disciplined. In this research, only one parent (a mother) of the child that was diagnosed with ADHD was diagnosed with ADHD. This participant, participant 2, reported that it was her sister's mother that had ADHD, but not her biological mother: "Her mother is, but not my mother" (Participant 2).

b) <u>The occurrence of structure and organisation in the home</u>

The role of parental child-rearing practices in the development and maintenance of children's externalising behaviours has been the focus of a considerable body of research. Researchers such as (Collett, Gimpel, Greenson & Gunderson, 2001; Patterson, 1982 and Patterson & Reid, 1991) have repeatedly demonstrated the association between ineffectual parenting and disruptive child behaviours.

In previous studies, it was suggested by the non-ADHD siblings, that children with ADHD require a greater degree of structure as opposed to those without the disorder. Most families living with an ADHD child know that trying to keep such a child organised is a source of frustration bordering on hopelessness, even though there is hope.

Difficulty organising tasks, items and activities are usually evident from an early age in children with ADHD (Sadock & Sadock, 2007). As the child grows up, these symptoms translate into chronic problems with forgotten or lost homework assignments, difficulty managing their own possessions and clothing, as well as experiencing difficulty maintaining any consistent routines. It is often said that "the only consistent thing about children with ADHD is their inconsistency" (Jaksa, 2010, pg 2).

It was evident from the data that was collected in the current research that the structure and routine in the family played a significant role in the way in which the family members interacted with each other. In those families that had a fair amount of routine, discipline and organisation, it appeared that they were better able to manage the ADHD child and their disruptive behaviour. However, those families that lacked appropriate structure seemed to have experienced a greater impact as a result of the way in which the ADHD sibling conducted himself.

Siblings of children with ADHD who participated in the current study likewise described their family life as chaotic, exhausting and focussed on their sibling. Examples of these feelings are expressed by participants by the following remarks:

Participant 3: *"[…] there was more attention on him"*

Participant 4: *"[…] everything revolved around my brother and it was almost was like ... it had to go his way"*

Participant 6*: "[…] he would bully me when I was smaller […] he would throw tantrums and get very angry for a four year old"*

The participants believed that when there was structure in the home, the living environment was a lot easier. However, the ADHD child would still be excused from doing their chores if they did not feel they were able to manage it that day. Participant 2 reported that her mother

would allow the ADHD child to not attend to her chores and would ask if another sibling could do it for her:

Participant 2: *"[…] well, she was not really concentrating on what she had to do. So someone else would have to do it for her"*

The above mentioned is an example of the way in which the behaviour of the child acts as an output from the child subsystem and an input for the parental subsystem according to the system's theory (Becvar & Becvar, 2009). This behaviour elicits feedback from the parental subsystem, which acts as an output from the parental subsystem and an input for the child subsystem. Therefore, those parents that present with ineffectual parenting methods will elicit a certain response in their child which will in turn promote either a positive or negative feedback response.

c) Marital conflict

The families of children with ADHD have to contend with a greater number of behavioural, developmental and educational interruptions. This often requires that more time, organisation and planning as well as energy be spent on the diagnosed child (Darling, 2007). It is not surprising that these increased demands are frequently associated with more stress in marital and family functioning. The financial burden of treating ADHD and its associated psychiatric disorders can add to these difficulties (Dyson, 2010).

Therefore, another aspect that can contribute towards the structure or disorganisation in the home is divorce. When family environments are chronically stressful, both the adults and children are at greater risk of physical and mental health problems. In families affected by ADHD, marital conflict is common, and has been consistently linked with poorer health and mental outcomes (Dyson, 2010). Some believe that marital conflict can negatively impact a child by reducing the child's sense of safety and security in their home environment, as well as upsetting parent-child relationships (Johnston et al. 2012). In addition to this, it might contribute to inconsistent discipline, as well as decreasing parental monitoring of potentially dangerous behaviours; or more directly act as a platform for aggressive behaviours. This could be due to the fact that homeostasis has not been maintained in a particular system and a negative feedback loop might be experienced in the system's environment (Becvar and Becvar, 2009).

Some of the participants that were interviewed suggested that there were often arguments or disputes regarding how to discipline or reprimand the child that was misbehaving.

Participant 3: *"...my mom is quite hands on. My dad is more relaxed. Every now and then they may have a small little argument about it."*

One of the participants indicated that the disagreements regarding the discipline and punishment of the ADHD sibling was the reason for her parents got divorced. Participant 7 reported:

Participant 7: "*Well, it was very tense because my brother was very naughty. And my mom was always 'no, we must not discipline him. We can't'. That is actually what led my mom and dad to be divorced."*

It could therefore be considered that the presence of an ADHD child in the home might bring about discrepancies in the way in which the parent chooses to discipline the child. This can result in marital conflict and even divorce, which might lead to several disruptions in the home.

Since the behavioural problems of ADHD children are elevated, this might promote a highly stressful environment for parents and siblings, which in turn can lead to unfavourable effects on children and parent-child relationships (Abidin, 1990; Deater-Deckard & Scarr, 1996 as cited in Abdolahian et al., 2011). It is evident then that a clearer understanding of the complexity of the mental disorder within an ecosystemic context is imperative. As such, it is suggested that the way in which a parent deals with the ADHD individual and his or her sibling can play a role in the family's functioning, which might include, but is not limited to, cohesion, family dynamics and interrelationships.

One could then suggest that the chronosystem has a part to play in the way in which an ADHD child is perceived. The chronosystem is made up of the environmental events and transitions that occur throughout a child's life, including any socio-historical events. This is due to the fact that in the past ADHD was underdiagnosed and very little was known about the disorder. A child was understood as being naughty or defiant and was often reported to have had learning difficulties as a result of a lack of concentration. However, as a result of the material resources that are available to society, research and investigations into this

disorder have given rise to literature that has been exposed to the public. This has created a greater awareness and understanding of the topic, which has encouraged families to seek medical help. Therefore, children and adults that are diagnosed with the disorder at present are being treated with more innovative medical treatments and procedures.

6.4.4 Theme: The use of stimulants and treatment received

Research has shown that individuals with ADHD more often than not need extra support and attention in order to control their behaviours and challenges (Abdolahian et al., 2011). Adjustments have to be made and the necessary action taken in order to accommodate the child with the mental disorder. Such measures could include medication and extra support for both the child and the family (Dyson, 2010). Due to the high costs of such facilities, the family might be placed under financial strain, which could end up affecting the sibling and the whole family (Kendall, 1999).

As noted in 2.11.2 above, families of children with ADHD go through a series of phases prior to accepting treatment. This includes identifying that the child has a problem, seeking medical advice and receiving a diagnosis, which they might or might not accept (Antle et al., 2006).

The adverse effects of ADHD on both the child and family vary. This is partly due to the difference in family and school resources, as well as age, cognitive ability and the insight of the child or young person (Harpin, 2005). Harpin (2005) also states that an environment that is sensitive to a child's needs and the implications of ADHD is vital in order for the child to reach his or her full potential. However, it is also important to determine the optimal medical and behavioural support for the child so as to minimise the adverse effects of ADHD (Harpin, 2005).

Taking into consideration the South African context, families and individuals might be denied the help that they need due to a lack of funding, socio-economic status and their location (Bornstein & Bradley, 2003). Additionally, some families may not be aware of their child's condition due to a lack of education. This in turn could exacerbate the situation and place further strain on the family's interrelationships. One can therefore see that the situation at hand is cyclical, because the one aspect affects the other and therefore places a strain on

the entire ecosystem's coping mechanisms and ability to live harmoniously. The child's mental disorder thus has the potential to become a source of stress, at both financial and emotional levels, for the caregivers and the family in general.

In the current study, all the participants' parents appeared to have sourced a multitude of avenues when exploring their various support structures. Many of them had consulted general practitioners, psychologists, psychiatrists, neurologists and teachers. Many of them explored various treatments such as behavioural interventions and pharmacotherapy. This is seen with a few extracts below:

Participant 2: *"I do remember that my sister went to a specialist to go through a few tests and stuff like that"*

Participant 3: *"Well, he was then put onto Ritalin"*.

Participant 6: *"First he had to go to a psychologist for a while. And they started him on that medication. And I think they had to do activities with him every day. That's how they dealt with it in the beginning"*.

Many participants explored pharmacotherapy as a form of treatment as it was recommended by their psychiatrist as the preferred or necessary course of action. The participants had mixed reactions about the use of medication as some felt that it completely altered their sibling's personality. One of the participants recalled:

Participant 8: *"She was a very bubbly person and when she started taking Ritalin she got very quiet".*

a) <u>Are the caregivers for or against medication?</u>

As we saw in the literature review, many parents of ADHD children describe negative comments from friends and family and worries that taking medication might stigmatise the child (Antle et al., 2006). Not surprisingly, parental beliefs about the aetiology of ADHD behaviours in children are associated with treatment choices.

It is said that parents are more accepting of medication for their children when the diagnostic process has been thorough, including comprehensive psychological testing (Bussing & Gary, 2001). Choices about medications can change over time, with schools and extended family members influencing parental decisions (Arcia et al., 2004).

Out of the eight participants that were interviewed for the purpose of this research, all of their ADHD siblings were using some form of medication or stimulant to control their behaviour as a result of being diagnosed by ADHD. It is thus clear that the parents of these participants were in favour of using medication, despite the fact that they had both positive and negative effects on the ADHD individual. This will be discussed in more detail below.

b) What was the outcome of the medication?

Regarding the literature, the decision to use or not to use medication was an ongoing process for many parents. Several families noted that they still continue to search for additional ways to assist their child beyond the help medication provides. In addition to using medication, parents work to find school programmes and extracurricular activities that match the child's needs (Bussing & Gary, 2001).

Treatment for ADHD should be preceded by a comprehensive evaluation that includes clinical interviews with the child and family in addition to information from the school (Bussing & Gary, 2001). It should assess the child's past and current functioning at home, school and social relationships, health history and possible coexisting disorders, including substance abuse (Wilens, 2011). If a learning disorder is suspected, a psycho-educational evaluation should also be done.

The participants of this current research report expressed mixed reactions with regards to their sibling using stimulants to alleviate some of the symptoms of ADHD. While some highly recommended the medication, other siblings suggested that it had negative effects on their sibling. The findings will be discussed below.

i) Positive

The majority of the participants that were interviewed for the purpose of this research stated that they had noticed positive effects on their siblings who were treated with stimulants such

as Ritalin. All of the participants' siblings had been prescribed Ritalin and a significant change was noticed in the way in which the ADHD sibling behaved.

The participants' suggested that their sibling's behaviour changed dramatically and they were a lot calmer and subdued, could focus more and were more alert. They were able to perform tasks that were expected of them and some participants even mentioned that their sibling's academic grades increased at school.

One of the participants stated that her sibling's behaviour was controlled when her medication was administered, but soon changed when the Ritalin wore off.

Participant 2: *"She does take Ritalin. So when she is on Ritalin, she is fine…. When she is not on the Ritalin, then it is just chaos."*

Another participant noticed the difference that Ritalin made in terms of her sibling's academic performance:

Participant 5: *"I mean, when he is on his medication he is fine. So that was good. He was doing much better in school, you know, completing his work and he was a calm child […] So definitely we would have him on his meds for schooling purposes during the week."*

One can therefore see that there were positive effects articulated by the participant regarding the use of medication. However, some participants' commented on the negative way in which it changed their sibling's personality and demeanour. The negative aspects of Ritalin will be discussed below.

ii) Negative

Although stimulants and medication have been said to improve the behaviour of the ADHD child, there are negative side-effects that might be experienced by the individual consuming these drugs (Anderson & Scott, 2006). Stimulant medications have been known to cause personality changes (Anderson & Scott, 2006). It is suggested that some people become withdrawn, listless, rigid, or less spontaneous and talkative whilst others develop obsessive-compulsive symptoms (Anderson & Scott, 2006; Kieling & Rohde, 2010). Most children and

adults that use prescribed medication for ADD/ADHD will experience at least a few side effects. Sometimes side effects go away after the first few weeks on the medication. Typical side effects include: loss of appetite, disrupted sleep, feeling restless and jittery, as well as complaints of headaches and stomach aches (Anderson & Scott, 2006).

The participants in the current study expressed their concerns with regards to the effects they noticed on their ADHD sibling.

Participant 6: *"For my brother, initially they put him on Ritalin for a while. But I think it was having bad side effects on him. And he even became naughtier."*

Other participants that were interviewed for this study noticed a remarkable difference in their sibling's behaviour and often stated that they felt that it was not their "true" sibling:

Participant 2: *"[…] and when she is on Ritalin, she is quite the opposite – she is very quiet."*

Participant 7: *"It was quite sad to see what he was like after taking the medication, because he was completely […] even now he's been off of it for four or five years and he still struggles with his emotions, because on Ritalin he did not feel anything. He was just completely numb 24/7. So it was sad to see someone you love in that constant state. And he was very young when he was put on Ritalin. So it did like stump his growth. So it was pretty hectic to see."*

Participant 8: *"She was very restless. She was a very bubbly person and when she started taking Ritalin she got very quiet."*

It is evident from the participants' comments, that they were affected by their ADHD sibling in numerous ways. While some outcomes were more positive than others, the overall perception was that the ADHD sibling's use of medication did have an impact on the home environment and on the sibling in particular.

6.5 Summary of findings

The findings of the research therefore, are that the diagnosed ADHD sibling does indeed have an impact on the family system and these impacts are consistent with those reported in the literature. As Kendall (1999) had suggested, due to the financial strain that may be imposed on the family, the entire family system was affected. Furthermore, as a result of the ADHD child needing more attention, research in Kendall's (1999) study suggested that the non-ADHD sibling may feel that there is a difference in the way in which the parents discipline each individual. Parents have different techniques for dealing with their offspring and these parenting styles can contribute to the familial relationships and experiences in the home environment. According to research by Johnston et al. (2012) and Kendall (1999), each sibling within the family system is likely to respond differently to the child with ADHD. Due to the fact that the non-ADHD sibling is likely to receive less attention than their ADHD sibling, this might give rise to feelings of rejection (Harpin, 2005). Additionally, the non-ADHD child may feel that there is an expectation to be a "good" child, or even get jealous at all the extra attention they perceive their parent to be giving the other child (Kieling & Rohde, 2010). The adverse effects of ADHD upon children and their families change throughout the years, with varying aspects of the disorder prominent at different stages (Berk, 2009; Harpin, 2005). Even the use of medication to treat the ADHD child may have both positive and negative effects on the diagnosed individual and their family members. It was noted that the findings from the current study, largely agreed with the theory and previous empirical findings.

The themes of the non-diagnosed siblings' perceptions and understandings of the interrelationships that occurred in the home as a result of the presence of an ADHD sibling, overlapped significantly as many participants had similar experiences. The participants that partook in the study came from different backgrounds, some experiencing a significant difference in the way they were parented as opposed to their ADHD sibling, while others noticed a difference but did not report it as being noticeably dissimilar. Many participants found that their role as a sibling changed and they often had to take on a more mature and nurturing role. Many of them found themselves being the "caretaker" as opposed to being a sibling and a child. In addition to this, the participants reported that the way in which the parents managed the home was of significance, because a lack of structure and organisation was said to exacerbate the conflicts in the home.

Stimulants and the use of medication was another commonality among the participants. All of their siblings had been prescribed medication for their hyperactivity by health professionals and some described the side effects their sibling experienced. The most common observation was that the non-ADHD sibling felt that it changed their sibling's personality.

However, despite the challenges that these participants faced, most of them have found a way to deal with their ADHD sibling and accommodate their needs.

6.6 Conclusion

This chapter focused on the discussion and interpretation of the findings presented in chapter 6, by presenting various themes that became prevalent within this study. The themes of the perceptions that the non-ADHD sibling has with regard to the impact an ADHD sibling has on the family system appears to be consistent with the limited existing literature. The themes that emerged from the interviews confirmed that the non-ADHD siblings perceived a difference in the way in which they were treated by their parents, as opposed to their ADHD sibling. The non-ADHD siblings reported that they felt they had a particular role to play in terms of caring for their ADHD sibling and many felt it was their responsibility to ensure that their sibling was attended to. All of the participants stated that their siblings were using medication to control the disorder and some expressed that it was their duty to ensure that the medication was being issued to the sibling. These findings suggest that the ADHD sibling does have an impact on the family system and it is noticed by the sibling that has not been diagnosed with the disorder.

CHAPTER 7:
STRENGTHS, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION



"Maybe it's not always about trying to fix something broken. Maybe it's about starting over and creating something better."- Author unknown

7.1 Introduction

This chapter serves as a concluding chapter and comprises a brief discussion of the study's strengths, limitations and recommendations for future studies. This chapter is divided into four broad sections: Section 7.2 and 7.3 explores the strengths and limitations of the study, while section 7.4 is a list of recommendations that resulted from the findings of this study. Section 7.5 presents a final conclusion of this research report.

7.2 Strengths

The fact that this current study focused on sibling's perceptions of living in a home with an ADHD sibling, within a South African context, suggests that this study is highly relevant due to the high prevalence of children diagnosed with ADHD in South Africa. Additionally, it may bring awareness to the fact that many families living in South Africa are living below the poverty line and are thus unaware of their child's conditions due to a lack of education and the opportunity to receive parent training or education programmes. This in turn could affect not only the family, but the individual himself. It was for this reason that all socio-economic groups were included in the study, in order to gain perspective as to what it may be like living under such conditions.

The data from the interviews was rich and could be used in conjunction with the literature to provide a fair portrayal of what siblings living with ADHD siblings feel in the home. This was of great benefit as literature in this regard was lacking greatly. In addition, the topic is important and up-to-date as the diagnosis of individuals with ADHD is on the increase. This

study introduced new material and a different dimension to ADHD and the family dynamics associated with it. The researcher believes that this study will provide insight for parents or caregivers with an ADHD child and other siblings in the home.

It is hoped that this study will bring attention to the fact that parental engagement with all their children is of great importance and that there are means of support available if it is required. Furthermore, this research aims at showing parents that their role in the child's life is crucial and that in fact they may be the tool needed to assist in improving their ADHD child's symptoms. Psychosocial interventions include parenting programmes, working individually and in groups with children with ADHD, incorporating cognitive behavioural therapy, behavioural approaches and social skills training (Vogel, 2014).

It can be seen from the research that the entire family system is affected. This then creates different dimensions in the home and should be carefully considered. Lastly, this study, along with the resultant recommendations, might be used to advocate for further research and resources with regards to the sibling's perception of how an ADHD sibling impacts the home environment.

7.3 Limitations

It is important to acknowledge the various limitations of this study. Obtaining information across ecological levels is logistically complex (Sallis, Owen & Fisher, 2008) and was beyond the scope of this study. However, the study's failure to obtain data across various ecological levels, due to logistical complexity and limitations in scope, is a noted limitation of this study. Due to the qualitative nature of the study, a further limitation is the inability to generalise the findings more broadly, due to the modest sample size and homogeneity of the group. In addition to this, the sample that was involved was taken solely from the Johannesburg area and therefore the findings are limited to Johannesburg, and are not necessarily representative of the whole of South Africa.

7.4 Recommendations

The research can be furthered by exploring the implications for the parents' own parenting and the education they receive as this might have an impact on the way in which they parent their own children. Due to the limited research on ADHD in South Africa, it might be

beneficial to extend such research, especially due to the high prevalence of the diagnosis of ADHD and its consequent impact on the family system.

Additionally, it is recommended to offer increased support to family members who have a child that is diagnosed with ADHD. This might be in the form of classes, support groups and information booklets. The researcher recommends that a diagnostic assessment should be done by a physician or psychologist familiar not only with ADHD, but also with the variety of related disorders as this will be of greater benefit to the client concerned. This is due to the fact that once a child is diagnosed with ADHD, it is not only the child that needs treatment, but the whole family should receive counseling and education on issues, such as those raised in this study. This may include parenting skills appropriate to the situation and inculcating an awareness in the parents of possible effects on the ADHD child's siblings.

According to Cunningham (2007), child management strategies and effective parenting is a central outcome to measure for at least three reasons. Firstly, the management strategies parents adopt exert a short-term influence on child behaviour. Managing the daily tasks of family life such as meals and bedtime, responding to noncompliance, dealing with sibling conflict or solving the more complex problems encountered during adolescence requires effective parenting skills (Cunningham, 2007). Secondly, child management strategies may moderate the strength of the relationship between primary ADHD symptoms and adaptive outcomes. Lastly, the child management strategies parents use are important predictors of longer-term adjustment and a mechanism or mediator through which other factors such as treatment, parental depression, or marital conflict may influence child development (Cunningham, 2007).

It is for this exact reason that Bronfenbrenner's ecological model was used, to demonstrate the widespread effects an individual and their environments may have on each other. Thus one can deduce that ADHD is not just the problem of the individual that has been diagnosed; it is a family problem (and even a societal problem) and should be treated as such.

Taking into account the South African context, one can understand the implication a lack of education can have, both with regards to parenting and ADHD. From what has been suggested from the literature, parenting can have a great impact on the child and his/her symptoms as well as on the family as a whole. It is for this reason that further research is

recommended to be conducted in order to investigate the true extent a lack of education and a low socio-economic status may have on the family when there is a child with ADHD.

7.5 Conclusions

This study explored the siblings' perceptions of the impact a sibling diagnosed with ADHD has within the family system. Further issues that were explored were the participants' perceptions of the relationships they have with the caregiver(s) and the sibling, as well as observations that the participants made regarding parenting differences in the home while living with a sibling with ADHD. An additional element that was investigated was the impact the ADHD sibling had on the family's harmony, resources and interrelationships.

It was discovered that research regarding the siblings' perceptions and accounts within a South African context were limited. However, due to the high prevalence of ADHD among school-going children, this study proves to be relevant for the South African context, especially for all primary caregivers and parents.

The overall findings indicated that there was a definite discrepancy in the way in which the siblings in the home were treated. The study highlighted the importance of parenting styles and the way in which the children were disciplined. It was noted by the non-ADHD siblings that there were various challenges that arose in the home due to the diagnosis of their ADHD sibling and that the harmony in the home was frequently disrupted. As a result, this gave rise to conflict and interpersonal discord, especially between the non-ADHD sibling and their parent/s.

This study therefore confirms that the presence of an ADHD sibling in the home does have an impact on the family system.

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Appendices

Appendix A:

Participant information sheet

Good day

My name is Kerry King and I am conducting research for the purposes of obtaining a Master's degree at the University of the Witwatersrand. I invite you to participate in my research titled "A study exploring a sibling's perception of the impact a fraternal/sibling diagnosed with ADHD has within the family system". Your participation will help me gain some insight into an area that has been under-researched in South Africa.

Involvement in this research requires your participation in a semi-structured interview of approximately 1-2 hours which will be scheduled at a time that is convenient to you and it will take place at a venue on the campus. With your permission, the interview will be digitally recorded in order to ensure accuracy. Please note that your participation in this study is voluntary, you will not be rewarded or penalized in any way. You have the right to withdraw from the research at any point. You may also refuse to answer any questions that make you uncomfortable. All data collected in the interview discussion (including digital recordings, notes, or transcripts) will be kept strictly confidential, all material will only be seen, heard, and processed by myself and my supervisor. However, quotations from the interview may be used in the study, but your name will not be mentioned anywhere in the research. It will remain anonymous. All the data collected will be kept in a safe location with restricted access. The data will be destroyed after two years should publications arise or after 5 years should no publications arise. No information that can identify a participant will be used in the interview transcripts. The results of this study will be written up in the form of a research report. They may also be written up as a research article or presented at a conference. Your informed consent for this will also be required**.** A summary of these results will be made available to participants on request.

It is my understanding that the study will not pose any risks or result in any benefits to you. However, if you feel you have any concerns regarding the study, or if you require any additional information, please feel free to contact me telephonically on 079 361 2871 or via email: kngker002gmail.com, or my supervisor Daleen Alexander via email: dinah.alexander@wits.ac.za. You can also seek free counseling at the Emthonjeni Centre if you experience that the narration of your story elicited any feelings that you feel may want to explore in more detail.

Kind Regards,

_____

Kerry King

Appendix B:

Interview guideline

Biographical details:

1. Name:……

(Please note that your name will not be used for confidentiality purposes and will remain anonymous at all times).

2. Age: ……

3. Gender: Male/ Female

4. Do you currently live at home?
5. How old were you when your sibling was diagnosed with ADHD?
6. How old was your sibling when first diagnosed with ADHD?
7. Are one of your parents diagnosed with ADHD?
8. Did your family receive any counselling or treatment?

Semi- structured interview schedule

1. Can you tell me how the relationships were like within your family system?

2. When your sibling was first diagnosed with ADHD, can you tell me what it was like in the home environment?
   2.1. Could you tell me if your caregiver changed the way in which you were treated?
   2.2. How did you perceive your caregiver/parent responded to the diagnosis of your ADHD sibling?
   2.3. How do you perceive you responded to the diagnosis?

3. What was the relationship like between you and your sibling?
   3.1. Did you feel that there was a change in the relationship between you and your sibling after the diagnosis?
   3.2. Can you tell me how you felt when your sibling was diagnosed?
   3.3. How did your sibling respond to you after he/she was diagnosed with ADHD?
4. How did having an ADHD sibling in the home affect your interpersonal relationships with your caregiver or parent?
   4.1. What was your relationship like between you and your caregiver/parent?

4.2. Can you tell me if you perceived any differential parental treatment between you and your ADHD sibling? If yes, please expand / tell me more.

4.3. Can you tell me what your role was as a sibling, after the diagnosis of your ADHD sibling?

Appendix C:

Consent form

Consent Form

UNIVERSITY OF WITWATERSRAND ENGLISH CONSENT FORM

Statement concerning participation in a Research Project

Name of Study:

A study exploring a sibling's perception of the impact a fraternal/sibling diagnosed with ADHD has within the family system

I have read the information on the proposed study and was provided the opportunity to ask questions and given adequate time to rethink the issue. The aim and objectives of the study are sufficiently clear to me. I have not been pressurised to participate in any way.

I know that sound recordings will be taken of me. I am aware that this material may be used in scientific publications which will be electronically available throughout the world. I consent to this provided that my name is not revealed.

I understand that participation in this study is completely voluntary and that I may withdraw from it at any time and without supplying reasons. This will have no influence on me or how I will be treated by any professional.

I know that this Study has been approved by the Human Research Ethics Committee (HREC) at the University of the Witwatersrand. I am fully aware that the results of this Study will be used for scientific purposes and may be published. I agree to this, provided my privacy is guaranteed.

I hereby give consent to participate in this Study.

....

Name of patient/volunteer Signature of patient or guardian

Place. ..... Date. .....

Witness. .....

Statement by the Researcher

I provided verbal and written information regarding this Study
I agree to answer any future questions concerning the Study as best as I am able.
I will adhere to the approved protocol.

.....	.....	.....	.....
Name of Researcher	Signature	Date	Place

Appendix D:
Consent form 2:

I …… (full name) understand what this research is about and I know that I can ask the researcher any questions at any stage in the process.

I give the researcher permission to tape record the session using her own voice recorder.

…… ……
Signature of participant date signed

I understand that I can withdraw from this research at any stage with no questions asked and no further implications.

…… …….
Signature of participant date signed

I agree to give the researcher this information below so that she can contact me to arrange an interview

Name:……..

Contact number:……..

……. …….
Signature Date

Appendix E:
Audio Recording Consent Forms

I, _____hereby voluntarily consent to my participation with Kerry King for her study, "*A study exploring a sibling's perception of the impact a fraternal/sibling diagnosed with ADHD has within the family system".*

- The digital recordings and transcripts will not be seen or heard by any person at any time, except the researcher and the researcher's supervisor
- All digital recordings will be destroyed after the research has been examined.
- Verbatim quotes may be used in the research report but no name will be given to identify the participant, thus ensuring that anonymity is maintained throughout the study.

Signed:_____

Date:_____

Appendix F:
DSM V criteria

Attention-Deficit/Hyperactivity Disorder

Attention-Deficit/Hyperactivity Disorder

Diagnostic Criteria

A. A persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development, as characterized by (1) and/or (2):

1. **Inattention:** Six (or more) of the following symptoms have persisted for at least 6 months to a degree that is inconsistent with developmental level and that negatively impacts directly on social and academic/occupational activities:
   Note: The symptoms are not solely a manifestation of oppositional behavior, defiance, hostility, or failure to understand tasks or instructions. For older adolescents and adults (age 17 and older), at least five symptoms are required.
   a. Often fails to give close attention to details or makes careless mistakes in schoolwork, at work, or during other activities (e.g., overlooks or misses details, work is inaccurate).
   b. Often has difficulty sustaining attention in tasks or play activities (e.g., has difficulty remaining focused during lectures, conversations, or lengthy reading).
   c. Often does not seem to listen when spoken to directly (e.g., mind seems elsewhere, even in the absence of any obvious distraction).
   d. Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (e.g., starts tasks but quickly loses focus and is easily sidetracked).
   e. Often has difficulty organizing tasks and activities (e.g., difficulty managing sequential tasks; difficulty keeping materials and belongings in order; messy, disorganized work; has poor time management; fails to meet deadlines).
   f. Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (e.g., schoolwork or homework; for older adolescents and adults, preparing reports, completing forms, reviewing lengthy papers).
   g. Often loses things necessary for tasks or activities (e.g., school materials, pencils, books, tools, wallets, keys, paperwork, eyeglasses, mobile telephones).
   h. Is often easily distracted by extraneous stimuli (for older adolescents and adults, may include unrelated thoughts).
   i. Is often forgetful in daily activities (e.g., doing chores, running errands; for older adolescents and adults, returning calls, paying bills, keeping appointments).

2. **Hyperactivity and impulsivity:** Six (or more) of the following symptoms have persisted for at least 6 months to a degree that is inconsistent with developmental level and that negatively impacts directly on social and academic/occupational activities:
   Note: The symptoms are not solely a manifestation of oppositional behavior, defiance, hostility, or a failure to understand tasks or instructions. For older adolescents and adults (age 17 and older), at least five symptoms are required.
   a. Often fidgets with or taps hands or feet or squirms in seat.
   b. Often leaves seat in situations when remaining seated is expected (e.g., leaves his or her place in the classroom, in the office or other workplace, or in other situations that require remaining in place).
   c. Often runs about or climbs in situations where it is inappropriate. (**Note:** In adolescents or adults, may be limited to feeling restless.)
   d. Often unable to play or engage in leisure activities quietly.
   e. Is often "on the go," acting as if "driven by a motor" (e.g., is unable to be or uncomfortable being still for extended time, as in restaurants, meetings; may be experienced by others as being restless or difficult to keep up with).
   f. Often talks excessively.
   g. Often blurts out an answer before a question has been completed (e.g., completes people's sentences; cannot wait for turn in conversation).
   h. Often has difficulty waiting his or her turn (e.g., while waiting in line).
   i. Often interrupts or intrudes on others (e.g., butts into conversations, games, or activities; may start using other people's things without asking or receiving permission; for adolescents and adults, may intrude into or take over what others are doing).

B. Several inattentive or hyperactive-impulsive symptoms were present prior to age 12 years.
C. Several inattentive or hyperactive-impulsive symptoms are present in two or more settings (e.g., at home, school, or work; with friends or relatives; in other activities).
D. There is clear evidence that the symptoms interfere with, or reduce the quality of, social, academic, or occupational functioning.
E. The symptoms do not occur exclusively during the course of schizophrenia or another psychotic disorder and are not better explained by another mental disorder (e.g., mood disorder, anxiety disorder, dissociative disorder, personality disorder, substance intoxication or withdrawal).

Specify whether:

314.01 (F90.2) Combined presentation: If both Criterion A1 (inattention) and Criterion A2 (hyperactivity-impulsivity) are met for the past 6 months.

314.00 (F90.0) Predominantly inattentive presentation: If Criterion A1 (inattention) is met but Criterion A2 (hyperactivity-impulsivity) is not met for the past 6 months.

314.01 (F90.1) Predominantly hyperactive/impulsive presentation: If Criterion A2 (hyperactivity-impulsivity) is met and Criterion A1 (inattention) is not met for the past 6 months.

Specify if:

In partial remission: When full criteria were previously met, fewer than the full criteria have been met for the past 6 months, and the symptoms still result in impairment in social, academic, or occupational functioning.

Specify current severity:

Mild: Few, if any, symptoms in excess of those required to make the diagnosis are present, and symptoms result in no more than minor impairments in social or occupational functioning.

Moderate: Symptoms or functional impairment between "mild" and "severe" are present.

Severe: Many symptoms in excess of those required to make the diagnosis, or several symptoms that are particularly severe, are present, or the symptoms result in marked impairment in social or occupational functioning.