Understanding the experiences of adolescent girls with ADHD: A case study

by

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DECLARATION

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ABSTRACT

Attention-deficit/hyperactivity disorder (ADHD) is one of the most common disorders diagnosed amongst children. Research regarding the experiences of adolescent girls with ADHD is sparse. The symptoms of the disorder seem to manifest differently in girls than in boys. Girls show symptoms of hyper-talkativeness, emotional reactivity, forgetfulness, disorganisation, low self-esteem and anxiety. Failing to identify these symptoms among girls results in many of them going through their primary and secondary school careers not ever being diagnosed. They are often misunderstood and consequently rarely receive the necessary support. Adolescents diagnosed with ADHD find it difficult to manage the pressures of academics and interpersonal relationships. Due to the small number of female participants in previous studies regarding this topic, there is little known about the effects of ADHD on adolescent girls. Gaining a better understanding of the effects on girls with ADHD can lead to improved identification of girls with this disorder and more effective interventions and support can be sought.

The aim of this interpretive study was to explore how the symptoms of ADHD affect the academic performance, as well as peer and family relationships of adolescent girls in order to develop more informed intervention strategies and to train teachers to accommodate their learning needs. Seven adolescent girls with ADHD were purposefully selected to participate in four individual interviews and one focus group interview. The participants designed reality boxes to signify their own understanding and experience of ADHD and the perceived effect on their academic performance, peer relationships and family relationships. The transcribed data were coded and categorised according to six broad themes that framed the study, i.e. explaining the ADHD symptoms, ADHD in school, ADHD in relationships, coping strategies for ADHD, influence of medication on experience of ADHD and people without ADHD.

This thesis presents how the participants made meaning of ADHD and constructed their identities, how they coped as well as how they could be supported in schools. Although symptoms like talkativeness, impulsivity and lack of time-management impact their learning and relationships, they feel accommodated and accepted by friends and family. However, teachers often misunderstand their behavior and therefore don’t accommodate their learning needs. Their recommendations for support will be discussed.

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OPSOMMING

Aandag-tekort/hiperaktiwiteit versteuring (ATHV) is een van die mees algemene versteurings wat gediagnoseer word onder kinders. Navorsing met betrekking tot die ervarings van adolessente dogters met ATHV is skaars. Dit blyk asof die simptome van hierdie versteuring verskillend manifesteer in dogters as in seuns. Dogters toon simptome soos oormatige spraaksaamheid, emosionele reaktiwiteit, vergeetagtigheid, wanorde, lae selfkonsep en angstigheid. Deurdat hierdie simptome onder dogters nie altyd diagnoseer word nie, lei dit daartoe dat baie van hierdie dogters regdeur hul laer- en hoërskoolloopbane gaan sonder om ooit gediagnoseer te word. Hulle word dikwels misverstaan wat voorkom dat hulle die nodige ondersteuning ontvang. Adolossente wat met ATHV gediagnoseer word vind dit moeilik om die druk van akademie en interpersoonlike verhoudinge te hanteer. Daar bestaan min kennis omtrent die effek van ATHV op adolossente dogters weens die klein getal vroulike deelnemers aan vorige studies wat op hierdie onderwerp gefokus het. Deur 'n beter begrip te verkry omtrent die effek van ATHV op adolossente dogters, kan dit lei tot 'n beter identifisering van dogters met hierdie versteuring wat kan lei tot beter effektiewe intervensie en ondersteuning.

Die doel van hierdie interpretatiewe studie was om die effek van die simptome van ATHV op akademiese prestasie, asook die portuurgroep en familie verhoudinge van adolossente dogters te verken. So kan intervensiestrategieë beter ingelig word en kan onderwysers opgelei word om hierdie kinders, met hul leerbehoeftes, te akkommodeer. Sewe adolessente dogters met ATHV is doelbewus geselekteer om deel te neem aan vier individuele onderhoude en een fokusgroep onderhoud. Die deelnemers het realiteitsbokse ontwerp wat hul eie begrip en ondervinge van ATHV verteenwoordig. Die bokse het ook aangedui hoe hierdie dogters die effek van ATHV op hul akademiese prestasie, portuurgroep en familie verhoudinge ervaar. Die data is transkribeer, kodeer en gekategoriseer volgens ses breë onderwerpe, nl. verduideliking van ATHV simptome, ATHV op skool, ATHV in verhoudinge, strategieë om ATHV te hanteer, invloed van medikasie op die ervaring van ATHV en mense sonder ATHV.

Hierdie navorsingstudie beskryf hoe die deelnemers betekenis gee aan ATHV en hoe hulle hul eie identiteite konstrueer, hoe hulle dit hanteer sowel as hoe hulle ondersteun kan word in die skool. Hulle is van mening dat hulle wel geakkommodeer en aanvaar word deur vriende en familie, ten spyte van die simptome soos oormatige spraaksaamheid, impulsiwiteit en 'n tekort aan tydsbeplanning. Hulle voel wel dat onderwysers dikwels hul gedrag misverstaan en dus nie

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hul leerbehoeftes ondersteun nie. Hul aanbevelings ten opsigte van ondersteuning word ook bespreek.

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- The *participants* – for sharing their personal and private selves with me and for making such a valuable contribution to the world of knowledge of ADHD.

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This research study is dedicated to a very special boy who is very close to my heart.

Kade Michael Thompson

You have taught me that with the right attitude, hard work and the support from loved ones, what is thought to be impossible is very much possible.

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CHAPTER 1
INTRODUCTION AND ORIENTATION TO THE STUDY

1.1 INTRODUCTION

Attention-deficit/hyperactivity disorder (ADHD)[1] can be defined as a biochemical disorder that affects the neurotransmitters involved in processes of focus and attention in the brain (Fisher, 2007). It is one of the most common disorders diagnosed amongst children and is primarily characterised in individuals who show a continual pattern of inattention, hyperactivity and/or impulsivity which interferes with daily functioning and development (American Psychiatric Association hereinafter referred to as APA, 2000, 2013; Barlow & Durand, 2012; Dupuy, Clarke, Barry, McCarthy & Selikowitz, 2008).

As mentioned, ADHD is one of the most common childhood disorders and is prevalent amongst all people, regardless of geographical or cultural factors (Polanczyk, de Lima, Horta, Biederman & Rhode, 2007). Data from the national health statistics show that 9% of American children between the ages of 3 and 17 have been diagnosed with ADHD of which 12% are boys and 5% are girls (U.S. Department of Health and Human Services, 2010). Although no official statistics on the prevalence of ADHD in South Africa are available, *The Hyperactivity/Attention Deficit Support Group of South Africa* estimates that 10% of all South African children show characteristics associated with ADHD (Lloyd, Stead & Cohen, 2006).

It was initially thought that children outgrow the symptoms of ADHD, but recent research has shown that this disorder can prevail right through adolescence into adulthood (Langley et al., 2010; Ramtekker, Reiersen, Todorov & Todd, 2010; Wolraich et al., 2005). A study done by Gau et al. (2010) found that 62.8% of adolescents diagnosed

[1] Some literature uses the notation AD/HD due to the guidelines of the fourth revised edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, 2000). According to the fifth, and most recent, edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5, 2013) the notation for attention-deficit/hyperactivity disorder is ADHD. For the purpose of uniformity the notation as used in the DSM-5 will be used in this study.

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with ADHD before age 7 still showed symptoms as adolescents. The symptoms, however, do manifest differently across the developmental stages and can also differ amongst boys and girls (APA, 2000, 2013; Ramtekker et al., 2010). This disorder often occurs with co-morbid disorders like oppositional defiant disorder (ODD), conduct disorder (CD), mood disorders, specific learning disorders, autism spectrum disorders and in a minority of adults, personality disorders can co-occur (APA, 2000, 2013; Quinn, 2005). It is therefore necessary to identify the possible predictors of adjustment across the developmental stages in order to improve intervention strategies (Shaw-Zirt, Popali-Lehane, Chaplin & Bergman, 2005). ADHD further affects people in different areas of their lives including academic, interpersonal relationships and emotional development (Langley et al., 2010; Willoughby, 2003). This will be discussed in more detail in Chapter 2, which focuses on the existing literature on ADHD.

In this chapter, a brief overview will be provided of the rationale of the study, the aim and the research design.

1.2 RATIONALE OF THE STUDY

ADHD has been a controversial disorder that has raised a variety of opinions regarding the cause and intervention of it. Although it is a disorder that many would consider over-researched, it is also one which is under-diagnosed precisely due to the fact that there is no simple explanation for it (Fisher, 2007). Most research has focused on the symptoms, treatment and co-morbidities of this disorder (Willoughby, 2003; Seixas, Weiss & Müller, 2011) and yet there is still a vast amount of richer, deeper underlying information that is still waiting to be delved into in order to understand its complexity. Up to date, most of the research that has been done on ADHD has focused on younger children and more recently studies have been conducted on adults with ADHD (Wolraich et al., 2005). There is very little research available that focuses on adolescents with this disorder, especially regarding the personal experiences of young people living with the disorder (APA, 2000; Sciberras, Efron & Iser, 2011; Wolraich et al. 2005). ADHD is a disorder that occurs across the world and is not limited by geographical or cultural boundaries

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(Antonucci, 2007). Regardless of this, most research has been done in America and Europe and very little information is available about how this disorder presents itself in Africa and specifically in South Africa (Bakare, 2012; Polanczyk et al., 2007; Snyman & Truter, 2010).

The *Salamanca Statement and Framework for Action on Special Needs Education* promotes inclusive education and highlights that it is expected of schools to serve and provide equal education to all children, including those with special education needs (UNESCO, 1994). This international policy document informed the *White Paper 6* in South Africa which outlines that all learners have access to mainstream schools and have the right to equal education and support where needed (Department of Education, hereinafter referred to as DoE, 2001). Children with ADHD do get affected by this disorder and often require academic and emotional support. According to Barkley (2007) intervention strategies for adolescents with ADHD is but one issue that requires more attention in this field. The Department of Health in South Africa (hereinafter referred to as DoH, 2013) has compiled a strategic plan with the purpose of addressing the effect of mental health on key developmental stages with the focus particularly on childhood and adolescence. The scope of practice for educational psychologists is to assess, identify and provide intervention practices in order to promote optimal learning and development (Health Professions Council of South Africa, hereinafter referred to as HPCSA, 2011; Kruger, 2013). Therefore, this study is relevant for my training as it will provide an opportunity to make a contribution to the identification and understanding of adolescent girls with ADHD and to the type of support they need. It can also possibly contribute vital knowledge which can inform the strategic plan of the DoH.

The symptoms of ADHD, viz. inattention, impulsivity and/or hyperactivity, are fairly easy to recognise and intervention strategies are readily available. Due to the hyperactivity which is ostensibly amongst boys, it is often diagnosed much easier among boys than girls (Abikoff et al., as cited in Biederman et al., 2005, p. 1083; Elkins, Malone, Keyes, Iacono & McGue, 2011; Willoughby, 2003). Quinn (2005) describes ADHD as a “hidden disorder” amongst females, which leads to it often being ignored or misdiagnosed. The

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symptoms of the disorder manifest differently among females than males. Females seem to show more symptoms of hyper-talkativeness, emotional reactivity, forgetfulness, disorganisation, low self-esteem and anxiety, which is in contrast to the hyperactivity and disruptive behavior that is typically seen among males (Quinn, 2005). These symptoms do not form part of the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (hereinafter referred to as DSM-IV-TR, APA, 2000) diagnostic criteria (Dupuy et al., 2008). No changes have been made to the diagnostic criteria in the fifth edition of the DSM (see 2.3 and 2.8). Research shows that age and gender are intertwined with the manifestation of the symptoms of ADHD (Lahey, Pelham, Loney, Lee & Willcutt, 2005; Solanto & Alvir, 2009). Therefore, the concern regarding the unchanged criteria in the most recent DSM is that females might still be underdiagnosed and/or untreated and will, therefore, fly under the radar (Ramtekker et al., 2010). Consequently this might implicate that the failure to identify the symptoms among girls may result in many of them going through school careers not ever being diagnosed with the disorder, resulting in not receiving the support they need.

As these children with ADHD grow older, the symptoms change. When they enter the adolescent phase, the hyperactivity might reduce, but the inattention and impulsivity remain, often causing great distress to an adolescent, specifically in the fields of academics and interpersonal relationships (Barkley, 2000; Elkins et al., 2011). Due to the small number of female participants in previous studies regarding this topic, there is little known about the effects of ADHD on girls and it is therefore imperative that more studies are done on female groups (Biederman et al., 2005; Quinn, 2005; Swanson, Owens & Hinshaw, 2012). Biederman et al. (2005) state that, gaining a better understanding of the effects on girls with ADHD, it can lead to better and improved identification of girls with this disorder. This will ensure that girls with ADHD are more regularly and accurately diagnosed and that they receive the necessary support. Identifying the problematic areas, multimodal support can be implemented (Elkins et al., 2011).

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An international study done by Mullins and Preyde (2013) focused on the perceptions of university students diagnosed with dyslexia, ADHD or mental illness. The participants in the study were all females who were in their second or further year of studies. The results from this study showed that students with these specific disorders experienced difficulties with the public questioning the validity of their disability and that the implementation of academic accommodations were subject to individual professors. One study that was done in South Africa focused on the experiences of boys with ADHD between the ages of 12 and 15 years and their mothers (Muthukrishna, 2006). Findings in this study showed that these boys experienced difficulties in school with their peers as well as with their teachers.

A study done by Engelbrecht (2009) researched the experiences of learners with ADHD in a special needs school in South Africa. The study included 3 males and 2 females who were in grades 7 and 8. It was found that these learners experienced their ADHD as reality and that it caused them great difficulties in their learning, development and the administration of medication. Results showed that the participants had a more positive experience in the special needs school than their previous mainstream schools, because they received more sufficient support. Further studies are necessary to understand the experiences of individuals with ADHD from the different genders, from various cultural backgrounds and in mainstream schools (Engelbrecht, 2009). Research is also needed in order to understand how ADHD affects individuals' perception of themselves and what support can be put in place for these learners.

It is evident that very little research has been done on the experiences of adolescents with disabilities in general (Mullins & Preyde, 2013). The focus of studies is either on pre-adolescent children or young adults. It also focuses more on males than females. The purpose of this study is to address the limited scope that exists between these two age groups. It will explore the experiences of adolescent girls specifically, seeing that there is a lack of information regarding this specific group both internationally and nationally. A better understanding of this disorder amongst girls can decrease this gap

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that exists and it can improve the support that these girls receive which also affects women's health in general (Biederman et al., 2005).

Being a high school teacher myself, I often deal with adolescents diagnosed with ADHD who find it difficult to manage the pressure of academics and interpersonal relationships. Due to the boys usually being the ones who show disruptive behavior, most teachers are aware of their diagnosis which in turn allows them to accommodate and support them academically and emotionally. It is, however, the girls with ADHD that often do not receive that necessary support. According to Groenewald, Emond and Sayal (2009) research shows that teachers are more likely to refer boys for treatment than girls. This may be due to the teachers not always being aware of the girls' difficulties because they present the symptoms of this disorder differently than boys. Due to lack of information regarding ADHD in adolescent girls (Swanson et al., 2012), it is very difficult to provide the proper support for them in order to ensure that they have equal opportunities to achieve academic progress and build positive interpersonal relationships.

The nature of my observations and the shortage of information in order to support these girls, have lead me to ask the question:

> "How do adolescent girls, in a mainstream school, experience the effects of their ADHD symptoms?"

The following sub-questions were formulated from this research question and served as guidelines for the study:

- How do the girls' ADHD symptoms affect them in the areas of academic performance, peer relationships and family relationships?
- What adaptive behavior strategies have they learnt to enable them to manage the symptoms of ADHD?
- What intervention strategies can be put in place in order to support them?

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- What role does others' perceptions of ADHD, as well the girls' own, play in the formation of these girls' identities?

1.3 AIM OF THE STUDY

The aim of this study is to explore and describe how adolescent girls in a mainstream school experience their symptoms of ADHD and the effects on academic performance, peer and family relationships in order to make recommendations for more informed intervention strategies and support teachers to accommodate their learning needs.

The sub-aims are to:

- analyse and describe the effect of the symptoms of ADHD on the girls' academic performance, peer and family relationships;
- explore and identify possible adaptive behavioral strategies these girls have learnt to enable them to manage the symptoms of ADHD, specifically in the areas of academic performance, peer and family relationships;
- identify, with the input of these girls diagnosed with ADHD themselves, what strategies can be put into place in order to effectively support adolescents with ADHD in a mainstream school;
- describe how others' perception, as well as the girls' own, of the diagnosis of ADHD plays a role in the formation of these girls' identities.

1.4 RESEARCH DESIGN

The research design involves the planning of the study (Barbour, 2007). It serves as a framework which guides one to conduct the study in a structured manner and to ensure that the gained results are valid. Kumar (2011) describes the various components of the research design and will be discussed according to i) the research paradigm, ii), the theoretical framework which informs the study, iii) the context, iv) strategy and sampling, v) the methods or techniques utilised to collect the data from the study and vi) the

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analysis of the data. The design of the research study will be discussed along these components:

1.4.1 The research paradigm

1.4.1.1 Interpretive paradigm

A paradigm is a perspective or "basic set of beliefs" that consists of interrelated thinking and practice which guides the researcher's actions to select particular methods for data collection (Denzin & Lincoln, 2011; Durrheim, 1999; Terre Blanche & Durrheim, 1999). It provides the framework in which connections are made between the phenomena that are being studied and which provide insights leading to new connections (Tudge, Mokrova, Hatfield & Karnik, 2009). Every paradigm is guided by three highly abstract principles called *ontology, epistemology* and *methodology*. Ontology refers to the study of reality and it is concerned with understanding the things that constitute the world (Schwandt, 2007). Epistemology refers to the nature (what is knowledge?) of the relationship between the researcher and that which is being researched, whilst methodology can be defined as the process used to seek out new knowledge (Denzin & Lincoln, 2011; Schwandt, 2007).

In order to conduct this study, I had to carefully consider the paradigm that would be most appropriate. An interpretive paradigm was selected which views the social world as constantly constructed through social interaction and assumes that reality can be understood by interpreting subjective perspectives (Hesse-Biber & Leavy, 2011; Lincoln, Lynham & Guba, 2011). This was a basic qualitative study conducted within an interpretive paradigm. Qualitative research is interpretive and grounded in the lived experiences of people and the researcher makes use of multiple methods to collect data from the participants' context (Creswell, 2009; Marshall & Rossman, 2011).

The aim of qualitative research is to provide in-depth descriptions and knowledge of people's complex worlds and how they give meaning to their experiences, circumstances and situations (Hesse-Biber & Leavy, 2011; Neuman, 2000; Terre

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Blanche & Durrheim, 1999). Therefore, in this particular research, knowledge was constructed through our own experiences and I, the researcher, as well as the participants, brought our subjective perspectives to the study (ontology). In addition, the nature of the relationship (epistemology) between me, as the researcher, and the participants was subjective (Lincoln et al., 2011). Due to the nature of this study and the aim of it (to gain a better understanding of the experiences of adolescent girls with ADHD and how this disorder affects them), a qualitative approach was an appropriate route to take. It aimed at studying the experiences of adolescent girls diagnosed with ADHD in order to gain an in-depth understanding of their subjective experiences in the areas of academics and interpersonal relationships. An interpretive approach was, therefore, suitable in order to achieve the aims of this study.

1.4.1.2 Constructivism

The view of an interpretive paradigm that people construct meaning through constant social interaction and that reality is subjective (see 1.4.1.1) is built on Vygotsky's theory of *constructivism.* Constructivism argues that knowledge is actively constructed or learnt by means of social interaction and that this knowledge is influenced largely by language, situation and context (Liu & Matthews, 2005). Therefore, the ontology of this study was influenced by the participants' own human subjectivity and their situation and context as well as those of the researcher. Seeing that this theory is applicable to the learning environment, it plays an important role in educational psychology (Liu & Matthews, 2005).

1.4.2 The theoretical framework which informs the study

Significant paradigm shifts have occurred regarding human nature and, since schools do not function in isolation from the rest of the world, these paradigm shifts have also influenced the thinking around the development and learning of children and thus the field of educational psychology in general. A brief explanation of the various paradigms will be discussed for the purpose of understanding the positioning of this study in the theoretical framework which informs it. The *medical deficit model* was popular from the

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early 1900s and when it was applied in the education system, the origin of the disorder was looked for within the child (Swart & Pettipher, 2011) and the child was treated whilst contributing external factors were discarded. Initially children with ADHD were treated according to this model and the disorder was considered to be within the child (biological) and thus only the child was treated (Richards, 2012).

During the 1970s the shift from the medical deficit model to the *social ecological model* occurred which entailed a change in attitudes and approaches (Swart & Pettipher, 2011). These changes brought about an approach that the disorder can be addressed by changing the systems in the child's environment and to provide support. The social ecological model has more recently shifted to *the bio-ecological model*. This model's approach is that there is a complex interrelatedness between the individual and the multiple systems in the environment (Swart & Pettipher, 2011; Tudge et al., 2009). The bio-ecological model informs the theoretical framework in which this study was based and is discussed in more detail in 2.2.

1.4.3 The context

As discussed earlier in 1.4.1, context plays an important role in a person's meaning-making process. Therefore, it is necessary to understand the context in which this study was conducted for the analysis and interpretation purposes of the findings. This study was conducted in a co-ed and parallel-medium high school in the Cape Helderberg Region of the Western Cape. It is a diverse, mainstream public school and serves roughly 1,200 children from the various surrounding geographical areas. There are learners with physical disabilities as well as learning difficulties and other mental disorders in the school and systems have been put in place to accommodate these learners in an inclusive education system. The school has a Counseling Department with a permanently employed, full-time counseling psychologist as well as a registered counselor who provides emotional and psychological support to each learner in the school (see also 3.3).

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1.4.4 Strategy and sampling

As part of the research design, it was decided that a case study would be an appropriate context in which to conduct this study. According to Merriam (1998) a *case study* refers to researching a case which is a bounded system that is “a thing, a single entity, a unit around which there are boundaries” (p. 27). Yin (2014, p. 16) provides a more detailed definition as “…a case study is an empirical inquiry that investigates a contemporary phenomenon (the “case”) in depth and within its real-world context, especially when the boundaries between the phenomenon and the context may not be clearly evident.”

According to this definition it is important to realise that the *case* as such is considered a unit which can consist of only one individual but can also include more people who have something in common. Stake (2005) describes a case as a bounded system or functioning body with specific features that everyone or everything within this body has in common and these features simultaneously serve as boundaries from the environment. It is described further as the process of inquiring about this bounded system with the aim of gaining a product of in-depth information (Mouton, 2001; Stake, 2005). Case studies can be quantitative, qualitative or a combination of the two. Due to the nature of qualitative methodology of this study, qualitative case study research was considered an appropriate method of inquiry. The principles of qualitative case study research are discussed in more depth in 3.2.

The sample refers to those participants, events, settings and artefacts which are considered to contain the best potential to yield valuable data (Marshall & Rossman, 2011). It is theoretically based and guides one to select the participants who will constitute the representative group to be studied. A variety of sampling plans exist that one can use to ensure that the best sample is selected. For the purpose of this study, I have chosen to use purposive sampling. This type of sampling requires a careful consideration of purpose of the study and then to identify participants within the parameters of what is being studied (Silverman, 2005). The sampling criteria implied that the case to be studied would be a homogeneous group. Hesse-Biber and Leavy

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(2011) describe it as a group where the members have something in common; like gender, age, social class, education level, particular life experiences or a combination of the above. The aim of selecting a homogeneous group is to gain an in-depth understanding of the particular group's experiences or thoughts regarding a certain issue. In this particular study, the sample group consisted of 7 participants of whom all were adolescent girls, had been diagnosed with ADHD and attended the same mainstream high school (see 3.3.2).

1.4.5 The methods or techniques utilised to collect data from the study

As mentioned, the methodology of a research design is a theoretical strategy used to decide on the specific methods and techniques to utilise to gain valuable information (Hesse-Biber & Leavy, 2011; Silverman, 2005). Silverman (2000) describes methodology as the general approach to study a research topic. It is a collection of techniques that are chosen purposefully to ensure that the desired data is collected for the study (also see 3.5). It is therefore important that one treats research techniques as a medium through which one can acquire specific meaning from gathered information (Silverman, 2000). Due to the qualitative nature of the study, one has to decide on methods that will provide in-depth information and that will allow for open-ended questions that can be followed up with additional questions (Patton, 1987).

A document with the necessary information regarding the research was compiled. In this document I provided a detailed description of the purpose of the study, the selection criteria for participants, a request for adolescent girls to volunteer to be part of the study as well as my contact details (see Addendum D). With permission from the school's principal, the document was distributed via email to the data base of parents from the school (see also 3.4.1). Adolescent girls, diagnosed with ADHD, were encouraged to respond via email if they wished to participate in the research. On the response from each volunteer, I contacted them individually to arrange a meeting (time and place) with the parents as well as their daughter. After meeting with all the relevant parties, written consent was given which allowed me to access the girls' personal documents that are

on file at the school (see Addendums F). Personal documents were used to gain additional information regarding the girls' backgrounds as well as school reports that shed light on each individual girl's academic performance. These documents were also used to verify information gained during the interviews.

A second document was compiled and attached to the email that was distributed. It was a questionnaire that the parent(s)/guardian(s) and the potential volunteer had to complete (see Addendum E). A questionnaire can be defined as a set of carefully designed questions that is given to a group of people (McLean, 2006). The purpose of it is to collect data about a certain topic or topics which will be valuable for the purpose of the study. In the case of this study, the questionnaire was utilised to gain biographical information as well as information regarding the history of the volunteer's diagnosis, i.e. when the diagnosis for ADHD was made, whether medication was being administered etc. It also contained questions specifically about the participants' perspectives regarding ADHD. The purpose of this was to prompt the participants to start thinking about their perspective on this topic as well as for me to use the information as guidelines for the interviews that followed.

A second method that was used to generate verbal data was interviewing through which the researcher could enter the person's world and to understand it from his/her perspective (Patton, 1987). The general interview guide approach was implemented that entailed one-on-one discussions (see 3.5.1). General themes were discussed during these interviews which made it more flexible and comfortable in order to understand the individual's perspective. It must be noted that qualitative interviews are frequently used in research with children and can hold possible problems (Zartler & Richter, 2012). Children often find it difficult to verbalise their thinking processes and recall valuable information (Mitchell, 2008; Zartler & Richter, 2012). One solution to this is to use various objects or pictures that enable the children to transform their thinking into visual representations which assist them to reflect and support them in verbalising their thoughts (Mitchell, 2008; Zartler & Richter, 2012).

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In this study I used a new technique called *reality boxes* that I adapted from a study by Karen Winter (2012, see 3.5.2). The concept of reality boxes was deducted from the opening ceremony of the Childhoods Conference (Oslo, as cited in Winter, 2012, p. 371). It entailed that each participant decorated the outside of a box to represent their perspective on how they think the world perceives them being diagnosed with ADHD. I conducted four individual interviews with each participant in which one theme for the purpose and aim of the study was addressed every time, i.e. academic performance, peer relationships and family relationships. Each participant had to put objects or pictures of their choice inside the box that represented their own understanding and experience of each theme. This method was considered appropriate for the aim of the study, because it made the participants active agents in the research that provided them with a sense of purpose. Through compiling these reality boxes, the experience of the learners could be described which “opened the eyes” of the researcher in order to gain a deeper understanding of their world (De Lange, Mitchell & Stuart, 2007; Winter, 2012).

After the individual interviews were conducted with all the participants, a focus group interview was conducted to serve as verification (see 3.5.3). By conducting a focus group interview, one establishes rapport with the participants and it creates an environment where emotional experiences can be openly shared (Geldard & Geldard, 2001). The ethical considerations were kept in mind throughout the focus group discussion and will be discussed below.

1.5 DATA ANALYSIS

Data analysis involves the process of giving meaning to the information that is collected during data collection. One method of data analysis is *coding* which refers to the reduction of data whilst retaining the essence of the information (Richards, 2009). Seeing that this study was conducted within the interpretive paradigm, I decided to use *In Vivo* coding which requires that the code is embedded within each participant’s own words (Saldaña, 2009). The various codes that emerged from the data were then organised into categories and from there the categories were organised into more

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general and abstract concepts called topics (see also 3.6). The codes, categories and concepts that emerged in this study will be discussed in more detail in Chapter 4.

1.6 ETHICAL CONSIDERATIONS

It is of utmost importance that the researcher's primary goal is to ensure the welfare and protection of the individuals with whom research is being done (American Educational Research Association Code of Ethics hereafter referred to as AERA Code of Ethics, 2011; DoH, 2006). Daniels (2008) makes it clear that informed consent forms the foundation of good ethical practices within research. It constitutes that the participant must be informed about the purpose of the study and that each gives consent prior to their participation in the study (Hesse-Biber & Leavy, 2011). Ethical clearance was obtained from the Research Ethics Committee: Human Research (Humaniora) of Stellenbosch University (see Addendum A) and permission was also gained from the Western Cape Education Department (hereinafter referred to as WCED) (see Addendum B) as well as from the school principal (see 3.4.1).

Specific attention must be given to the informed consent, confidentiality of personal information and anonymity of the girls (Winter, 2012). Therefore, the parents or legal guardians of each girl, as well as each girl herself, were informed about the purpose and procedures of the study (see 3.4.2). Considering that the girls were all under the age of 18, informed assent was obtained from them (see Addendum G). According to Allan (2011) consent is valid if the person is competent to give consent. Due to the parents of adolescents not often responding to information letters, passive consent is obtained when parents do not explicitly refuse consent (Allan, 2011). However, I personally decided, due to respect for the parents, to inform the parents of the study and, therefore, the parents were required to give consent and the participants (regardless of age) were required to provide assent. Seeing that this was an on-going process instead of a once-off event (Alderson & Morrow, 2004) the girls were frequently reminded of their right to confidentiality and anonymity as well as the right to withdraw from the study at any time.

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The interviews took place in a closed setting where access was controlled (Silverman, 2005). It was conducted in a private office after school hours in order to safeguard the participants' confidentiality and anonymity. The interviews took place in the form of a discussion in which the participant would inform the researcher about the objects in the reality box and what they represent. All interviews were recorded and transcribed for the purpose of the study. Photos were taken of the contents of the boxes and aliases were used. Informed consent was obtained from each participant for the above mentioned. Arrangements were made with the psychologist, who is permanently employed by the school, to be available for support if any of the participants were to experience distress during the interviewing process.

I considered the dilemma that, when the participants used photographs, it could become exploitative and that it could hold potential harm when using this method with children who are considered to be a vulnerable group. Therefore, I put further procedures in place to ensure anonymity and protection of the participating girls as well as those individuals who appeared in the photographs. The girls were orientated with regards to informed consent and it was stipulated that they were only allowed to take photos of individuals who agreed to it after being insightfully informed with regards to the purpose of the photos (Daniels, 2008; De Lange et al., 2007). The girls were further informed regarding privacy of all participants and that they were ethically obliged to keep each other's identities confidential. They were asked to keep everything that was said during the focus group discussion confidential.

1.7 OVERVIEW OF THE STUDY

The division of chapters is structured according to the systematic steps taken during the course of this study and will be presented as follows:

CHAPTER 1: Introduction and orientation to the study

This is an introductory chapter that clarifies the motivation for this study. An overview of attention-deficit/hyperactivity disorder (ADHD), the symptoms across age and gender,

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the effects of the disorder on functioning and development and the policy guidelines applicable to this disorder are discussed as rationale for this study. In this chapter the aim, and sub-aims, of this study are depicted and an outline of the theoretical framework and research design is provided.

CHAPTER 2: ADHD: A theoretical exposition

This chapter provides an overview of ADHD and how it affects adolescents, girls in particular. The theoretical framework which informs this study is discussed in depth as well as various theories on the etiology of ADHD, the primary symptoms, diagnosis and intervention strategies. How ADHD manifests across the various developmental stages and how it affects academic performance, as well as peer and family relationships with specific focus on adolescent girls, are discussed.

CHAPTER 3: Research design, methodology and analysis

The research methodology that was adopted in this study will be detailed in this chapter. It will provide an overview of the research design and outline the methods and techniques for data collection and analysis. A discussion on ethical considerations and quality assurance in research will conclude this chapter.

CHAPTER 4: Research findings

This chapter will focus on the data analysis with reference to *In Vivo* coding, categories and topics as qualitative analysis tool.

CHAPTER 5: Discussion of the findings, reflection, the implications of the study for practice, limitations and recommendations

This chapter will provide an integrated discussion of the findings related to the literature that exists regarding ADHD. There will also be focused on the value of the process of qualitative research and how the findings can contribute to the practice of educational psychology. The chapter will be concluded with an overview on the limitations of this study and the recommendations for further research.

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1.8 CONCLUSION

In this chapter I have provided a general overview of this study. The research paradigm, theoretical framework and context as well as the strategy, methods and process of analysis were briefly outlined. The ethical consideration undertaken in this study was also discussed.

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CHAPTER 2
ADHD: A THEORETICAL EXPOSITION

2.1 INTRODUCTION

The literature review forms an integral part of any research and plays a multi-purpose role in conducting a good study. It was utilised to contextualise my own study in order to position myself within the existing literature on the specific topic of ADHD (Henning, van Rensburg & Smit, 2004). By conducting a comprehensive literature review one is able to clarify and focus one's research question, improve the methodology, broaden one's scope of knowledge within the field under study and contextualise the findings (Kumar, 2011). By doing this I was able to integrate my findings with existing knowledge and thus be able to conceptualise my study to either support or contradict earlier research (Kumar, 2011).

In the introductory chapter I argued that for a long time ADHD has been considered a disorder mainly amongst males and that the primary symptoms manifest differently across the various developmental stages (Babinski et al., 2011). Information on how it manifests and affects females diagnosed with this disorder, especially in the adolescent and young adult stages, is scarce and I identified the gap in the literature for a better understanding and consequently the motivation for this research (Babinski et al., 2011; Fedele, Lefler, Hartung & Canu, 2012). More specifically there is a shortage on information on how ADHD affects females in particular, precisely because it is known that it affects them in major areas of their daily functioning, i.e. school and interpersonal relationships (Langley et al, 2010; Sibley et al., 2012; Willoughby, 2003). Sibley et al. (2012) further state that teachers in high schools are far less knowledgeable than those in primary schools on how to identify and accommodate these learners in their classrooms. The scope of practice of Educational Psychology focuses on learning and development of an individual (HPCSA, 2011). Therefore, the information in this chapter, and the findings that are discussed in Chapter 5, can contribute in not only the learning and development of the individual with ADHD, but also to that of the teachers and

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parents who are often the maintaining factors of the symptoms and manifesting behavior.

In this chapter I will discuss the existing literature on ADHD and more specifically on how it applies to females. I will discuss the theoretical framework that framed my study as well as the various etiologies, symptoms and diagnostic criteria of ADHD. Furthermore I will discuss the main characteristics of the different developmental stages and how ADHD affects females in particular within the three focus areas of academic performance, peer and family relationships. The chapter will be concluded with a brief discussion on the various intervention strategies for this disorder.

2.2 THE BIO-ECOLOGICAL PERSPECTIVE

Educational Psychology focuses on the assessment and intervention practices in order to promote optimal learning and development (HPCSA, 2011; Kruger, 2013). The theoretical approach is to understand human development as well as the process of learning in various social contexts (Donald, Lazarus & Lolwana, 2010) in order to encourage learning and development across the lifespan. Urie Bronfenbrenner's bio-ecological model focuses on the multi-dimensionality of human development. This model suggests that an interaction exists between various systems that result in growth, development and change (Swart & Pettipher, 2011). It therefore emphasises the reciprocal relationship between the individual and the systems within his/her social context (Swart & Pettipher, 2011; Tudge et al., 2009). Bronfenbrenner's perspective highlights the constant interaction between four main dimensions, also referred to as the Process-Person-Context-Time model (PPCT in short) which brings about development and change (Tudge et al., 2009). *Figure 2.1* represents Bronfenbrenner's bio-ecological model and the interaction between the various dimenstions. For clarifying and understanding purposes these four dimensions will be discussed in short and reference will be made to the connection between the theory and attention-deficit/hyperactivity disorder.

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2.2.1 Proximal Processes

For Bronfenbrenner the proximal processes form the core of his model and are vital for human development. According to him this interaction between an active, evolving bio-psychological individual and his/her direct environment leads to specific kinds of developmental outcomes as well as actualising the genetic potential that the individual possesses in order to function effectively (Swart & Pettipher, 2011; Tudge et al., 2009). In order for this to happen the interaction needs to occur on a regular basis and becomes progressively more complex over extended periods of time (Swart & Pettipher, 2011). It is through this reciprocal interaction that the person is able to make sense of their world and to understand where they fit in and what role they play in this world; thus contributing to their competencies and general well-being (Krishnan, 2010; Tudge et al., 2009). It also enables them to learn how to adjust and adapt to their reality. Due to the nature of this study and its focus on how the participants make sense of their ADHD, proximal processes played a very important role. These processes specifically contributed to the participants' understanding of where they fitted in.

2.2.2 The Person

The person characteristics of an individual also play a role in development. These characteristics are often referred to as the biological and genetic aspects in the bio-ecological model. Bronfenbrenner was of the opinion that the person characteristics an individual brings to any social situation are instrumental to the shaping of proximal processes (Tudge et al., 2009; Swart & Pettipher, 2011). He identified the three types of person characteristics as *dispositions*, *ecological resources* and *demand* characteristics (Swart & Pettipher, 2011). Dispositions are those characteristics which can set these processes into motion and sustain its operation or it can limit their occurrence, i.e. impulsivity, distractibility, curiosity etc. (Bronfenbrenner & Morris, 2006; Swart & Pettipher, 2011). The ecological resources are those positive and negative characteristics of a person which make it possible for the person to engage effectively in the proximal processes and thus enable effective development, i.e. genetic deficits,

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cognitive ability, skills etc. (Swart & Pettipher, 2011). The third type is demand characteristics which either invite or discourage reaction from the social environment (Bronfenbrenner & Morris, 2006). This can also encourage or disrupt the proximal processes. These various person characteristics, and how they interact with each other and the environment, contribute to the development and direction of the individual's proximal processes and thus their development (Bronfenbrenner & Morris, 2006). Therefore, in this study the participants' person characteristics influenced their own development and added to the various descriptions of their experiences of ADHD. This influenced the results and findings (see also Chapter 5.).

2.2.3 Context

There are multiple systems in a child's environment that influence development directly or indirectly. The child is in constant interaction with these systems whether it is physical, social, economical or political (Krishnan, 2010). Four contexts or environmental systems exist which influence the child's development directly or indirectly (Krishan, 2010; Swart & Pettipher, 2011). The *microsystem* refers to the immediate environment with which the child has direct interaction on a daily basis, i.e. family, school, peers (Donald et al., 2010; Krishnan, 2010; Tudge et al., 2009). In this study the focus was mainly on the microsystem and the effect of it on the participants' experience of their ADHD. The child does not interact with the various microsystems in isolation. All these systems, relevant to the child, also interact with each other.

The interrelated interaction amongst the various microsystems is called the *mesosystem*. This system refers to the interacting relationship between two or more microsystems at a given time in the child's life (Donald et al., 2010; Swart & Pettipher, 2011). Bronfenbrenner and Morris (2006) further incorporates that the person characteristics (see 2.2.2) are also applicable to the people in the various microsystems. It influences the interaction in the mesosystem and thus contributes further to the person's proximal processes (also see Chapter 5.). In the case of this study the focus was mainly on the participants' interaction with parents, teachers and friends.

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The *exosystem* is the third system which refers to environments that the child does not encounter directly, but the interaction amongst these environments has a direct influence on the child's development (Donald et al., 2010; Krishan, 2010). An example of an exosystem can be the school's policy to provide time concessions for children with ADHD which is an indirect decision that can have a direct influence on the child's academic performance. The final system that Bronfenbrenner refers to is the *macrosystem*. Krishan (2010) describes this system as the societal blueprint which influences all the other systems. It includes the beliefs, attitudes, values and ideologies which are inherent to the society in which the child functions (Swart & Pettipher, 2011). This system directs the interactions of all the other systems and thus directs the child's proximal processes.

2.2.4 Chronosystem

The *chronosystem* envelopes the dimension of time in which all the other systems of this model interacts and as a result influences the child's development. Time can allude to aspects such as chronological age, duration and nature of periodicity and, as the interaction between systems varies in degree of impact on development, it can also change as time progresses (Krishan, 2010). This means that developmental processes can differ as the developing child moves from one developmental phase to another (Tudge et al., 2009). This study focused on a specific developmental phase which included adolescent girls.

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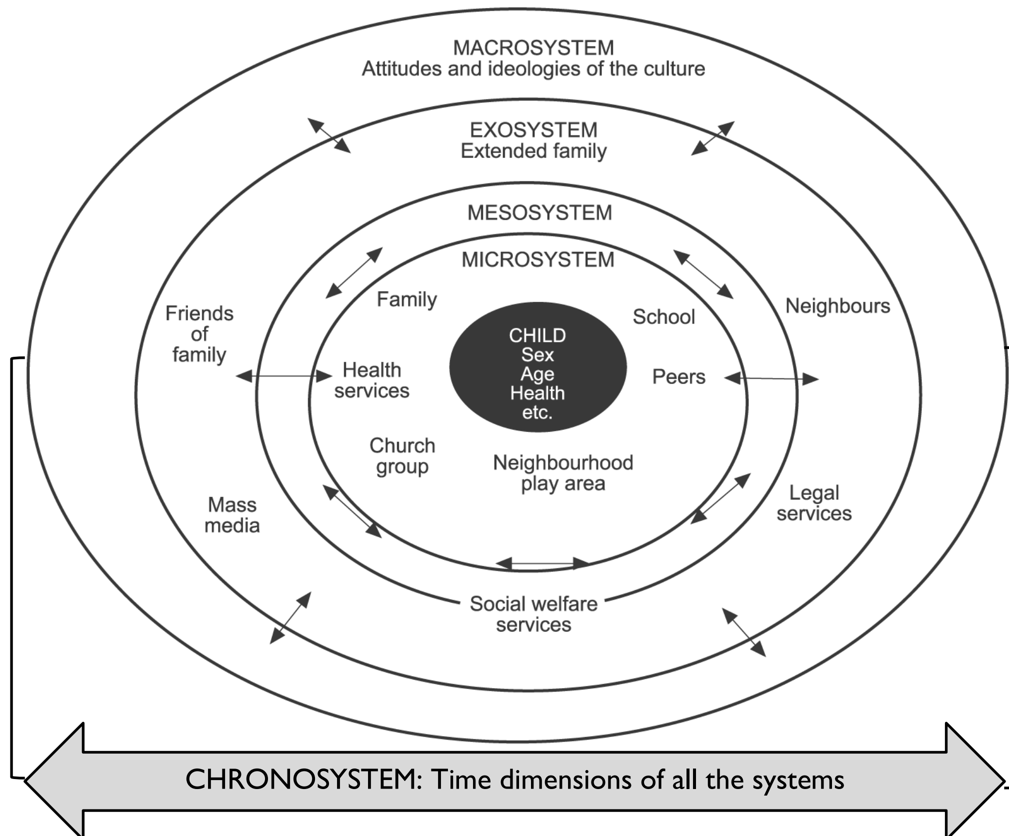

Figure 2.1: The Bio-ecological model

2.3 WHAT IS ADHD?

Attention-deficit/hyperactivity disorder (ADHD) is a developmental disorder that consists of persistent age-inappropriate symptoms of inattention, hyperactivity and impulsivity which interfere with a person's functioning and development (APA, 2013; Barkley, 2000; Mash & Wolfe, 2005). Mullins and Preyde (2013) use the term 'invisible disability' that describes this disorder as not showing any physical symptoms but having a noticeable interference with a person's day-to-day functioning. It can only be identified by characteristic behavior, as described by the diagnostic criteria in the DSM-IV-TR (and more recently the DSM-5) which also differs from person to person (Mash & Wolfe, 2005). The lack of visible signs makes it even more difficult to diagnose and treat ADHD. This causes many professionals to have different opinions and theories regarding the disorder.

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One of the few explanations that they do agree upon is that it is a neurological disorder where there is a disturbance in the neurotransmission system that affects the parts of the brain responsible for attention control (Fisher, 2007). Although other neuro-chemicals such as serotonin and gamma-aminobutyric acid (GABA) play a role in causing ADHD, research evidence shows that dopamine and norepinephrine also play an essential role in this disorder (Barlow & Durand, 2012). These neurochemicals influence the frontal cortex of the brain and are responsible for the regulation of attention, focus, thinking processes, alertness and motivation (Hunt, 2006). There is an imbalance, usually a lack of, in the levels of these neurotransmitters in the brain of people diagnosed with ADHD which results in them either responding impulsively or failing to respond appropriately (Hunt, 2006; Neary, 2007; Osborne, 2013).

2.4 PREVALENCE

Due to the characteristic behavior of ADHD that manifests differently from person to person, it is difficult to provide an accurate prevalence rate of this disorder. It has been estimated that 5% of all children have been diagnosed with ADHD (APA, 2013). Some professionals argue though that the number should possibly be higher due to the disorder being underdiagnosed because there are many other disorders that show similar symptoms to that of ADHD (Neary, 2007). Prevalence rates indicate that it is more common amongst boys than girls with a ratio of 2:1 (APA, 2013; Dupuy et al., 2008). Historically it was thought that ADHD was a disorder that only affected males and the criteria used to diagnose it suggest the same (Biederman et al., 2002; Willoughby, 2003). Therefore, it is very possible that the prevalence rates amongst females can be higher but that it is underdiagnosed due to the bias nature of the diagnostic criteria. Groenewald et al. (2009) suggest that 20%-30% of children diagnosed with ADHD are female. The presentation of symptoms of ADHD is different amongst girls and boys, being that they are less prone to disruptive behavior, which contributes to the under-identification and under-referral of girls with this disorder (Biederman et al., 2002; Groenewald et al., 2009).

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The majority of research conducted in the field of ADHD has been in North America and Europe. Opinions have been raised that this disorder might be a cultural construct but recent studies have concluded that culture and geographical location have little or no influence on the prevalence of the disorder (Bakare, 2012). A small number of studies has been conducted in Africa and only a few have focused specifically on South Africa. The majority of the studies done in South Africa focuses mainly on children in the pre-school and childhood phase and the co-morbidity of learning and other disorders. Some studies focus on parents', teachers' and practitioners' attitudes towards children with ADHD. One study done by Engelbrecht (2009) focused on the experiences of adolescents with ADHD in a special needs school. There are no official statistics on the prevalence of ADHD in South Africa, but Meyer's study (as cited in Snyman & Truter, 2010) suggests that it is the most prevalent psychiatric disorder amongst South African children. It is estimated that between 5%-10% of all South African children show characteristic behavior associated with ADHD (Bakare, 2012; Snyman & Truter, 2010). According to a survey done by the DoH (2013) of South Africa over a period of five months, 5% of children and adolescents in the Western Cape are diagnosed with ADHD.

2.5 AGE OF ONSET

ADHD is a chronic disorder that extends across the lifespan. In the past it was thought that it can be outgrown as one gets older. However, recent studies have shown that this disorder continues into adulthood but that the characteristic behavior changes as the individual enters different developmental phases like adolescence or adulthood (Faraone, Biederman & Mick, 2006; Fisher, 2007; Walker, Venter, van der Walt & Esterhuyse, 2011). Statistics show that more than 70% of people who were diagnosed with ADHD as children still present characteristic behavior of the disorder as adolescents and almost 69% of those adolescents present the symptoms as adults (Walker et al., 2011).

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According to the criteria of the DSM-IV-TR, ADHD was initially diagnosed before the age of 7 when the symptoms of inattention, hyperactivity and impulsivity are recognised as age inappropriate or not characteristic of the developmental stage of the child (APA, 2000). As stated in the DSM-5, the most recent criteria require that the disorder is diagnosed before the age 12 (APA, 2013). The symptoms, and how they manifest in the different developmental phases, will be discussed in more detail in 2.7

2.6 PROPOSED ETIOLOGIES OF ADHD

It is difficult to provide direct scientific proof as explanation for the cause of anything related to human development (Barkley, 2000). It is not always possible to subject human beings to scientific experiments in order to determine explanations for phenomena. Therefore, there is no definite explanation as to what causes ADHD although a number of theories provide possible explanations for the cause for ADHD. Some of these theories are focused on biological factors within the individual, whilst others are focused on factors outside the individual, which are thus environmental. Antonucci (2007) is of the opinion that the etiology of ADHD is a more complex interplay between biological and environmental factors. This correlates with Bronfenbrenner's bio-ecological model. Many studies have been conducted over the decades to prove these theories and one aspect that they all have in common is that ADHD affects the brain and behavior of an individual.

Theories exist that hypothesise about the cause of ADHD and, conversely, there are also theories that focus on the factors that maintain the symptoms of ADHD. According to Carr (2006) the theories on the etiology of ADHD can be divided into three main categories. Firstly, there are those theories that focus on the biological factors, secondly, there are theories that focus on the inter-psychic factors and thirdly, there exist a number of theories that focus on the psycho-social factors that can possibly explain the cause of this disorder.

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2.6.1 Biological Factors

Biological factors refer to that which is internal such as neurological, genetic, chemical and physiological. Some etiologies argue that ADHD is caused by certain biological factors which affect the functioning of individuals with this disorder. The biological factors which will be discussed in this study are genetic heritability, organic deficits and neurotransmitter dysregulation.

2.6.1.1 Genetic heritability

Numerous studies have been conducted that show evidence of ADHD being hereditary and being repeated in families from generation to generation. According to Venter (2004) genetic factors play a role in more than 80% of cases of people with this disorder. Multiple genes are responsible for this disorder and are mainly associated with the neurotransmitters which will be discussed in more detail in 2.6.1.3 (Barlow & Durand, 2012). Studies indicate that children from families with a history of ADHD are born with a pre-disposition and that multiple genes are responsible for this disorder (Barkley, 2000, 2007; Carr, 2006; Nikolas & Burt, 2010).

2.6.1.2 Organic deficit

The frontal lobe of the brain is associated with being responsible for executive functioning such as inhibiting behavior, sustaining attention, regulating self-control and planning ahead (Barkley, 2000; Carr, 2006). Some theories argue that structural and functional brain abnormalities are the cause of ADHD, specifically in this area of the brain (Carr, 2006; Venter, 2004). These abnormalities refer to the size of the brain being smaller, a less symmetrical prefrontal and basal ganglia structure and the relationship to the central aspects of the cerebellum (Carr, 2006; Venter, 2004). The structural abnormalities can be due to various pre-natal factors such as smoking or the use of other substances during pregnancy (Richards, 2012). Peri-natal factors such as premature birth, low birth weight and birth complications can also lead to abnormalities of the brain structure (Carr, 2006; Richards, 2012). It can also be due to post-natal

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factors such as brain injury due to accidents, strokes, brain tumors or brain diseases (Barkley, 2000; Carr, 2006; Richards, 2012; Sattler, Weyandt & Roberts, 2002).

Brain activity, or rather inactivity, is also shown to be a possible cause for ADHD. A large number of studies have been conducted where an electroencephalograph (EEG) is used to compare the brain activity of people with ADHD to those without it (Barkley, 2000; Venter, 2004). The results of these studies have shown that the brain activity is noticeably lower in the frontal lobe of people with ADHD compared to people without the disorder. It is further argued that the more active the various parts of the brain are, the more blood supply is required (Barkley, 2000). Studies have shown that there is less blood flow in the frontal lobe of the brain of people with ADHD compared to people without it. This can be explained due to the lower brain activity in that part of the brain, as discussed above, or it can be explained as the cause for lower brain activity and thus leading to ADHD.

2.6.1.3 Neurotransmitter dysregulation

Neurotransmitters are the chemicals in the brain responsible for communicating information between the brain and the rest of the body (The Brain Wellness Program, 2013). Two kinds of neurotransmitters exist, called the inhibitory and excitatory neurotransmitters. The inhibitory neurotransmitters are responsible for calm and creating a balance in the brain whilst the excitatory neurotransmitters are responsible for stimulating brain activity. These two types of neurochemicals interact with each other to maintain a balance in the brain, i.e. when there is an excess of excitatory chemicals being produced which leads to over-reactiveness, more inhibiting chemicals will be produced to reduce and bring about balance in the brain and vice versa.

Many studies have shown that abnormalities exist in the neurotransmitter functioning of the brain in people with ADHD (Carr, 2006). Certain neuro-chemicals such as serotonin and gamma-aminobutyric acid (GABA) contribute to the cause of ADHD, but research shows that dopamine and noradrenaline play an essential role in this disorder (Barlow & Durand, 2012; Carr, 2006; Venter, 2004). Dopamine helps a person to focus and to be

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motivated to get things done. When there is a shortage of this chemical in the brain, as studies have shown in the case of ADHD, the individual experiences inattention (The Brain Wellness Program, 2013). Noradrenaline, on the other hand, is responsible for restraining over-activity and when there is a shortage of it in the brain it leads to hyperactivity (Carr, 2006).

In conclusion it appears as if biological factors contribute to the cause of ADHD and that the regulation of neurochemicals plays a pivotal role in the cause, manifestation and management of ADHD.

2.6.2 Intra-psychic Factors

Intra-psychic factors refer to those internal psychological processes that occur within the person's psyche. These factors direct and influence functioning and behavior. According to some theories executive functioning and organic deficits are examples of intra-psychic factors which cause ADHD.

2.6.2.1 Executive functioning

Executive functioning refers to a series of high-level cognitive functions which enable an individual to adapt to new or complex situations. These processes enable one to control self-regulation, to bring one's behavior under control and to consider the immediate, as well as future, consequences for behavior (Hathaway & Barkley, 2003). It is therefore responsible for the planning of actions, the initiation of behavior, cognitive flexibility, judgment and decision-making and social interaction (Barkley & Fischer, 2011; Collette, Hogge, Salmon & Van Der Linden, 2006; Rinsky & Hinshaw, 2011). The frontal lobe of the brain is responsible for this executive functioning. When there are abnormalities or damage to this part of the brain, as in the case of ADHD, people will have difficulties regulating their executive functioning processes. Some theories argue that people with ADHD have the inability to regulate their executive functioning which leads to difficulty regulating their affect, arousal, motivation and behavior (Barkley, 2007; Carr, 2006). Barkley (2007) goes further to explain that executive functioning is externalised at the

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early age of a child's development and that caregivers are responsible to teach the child to internalise and regulate these functions. It appears as if some people with ADHD experience difficulties to internalise all these executive functioning processes and thus show impulsive, hyperactive and inattentive behavior depending on those executive functioning that they struggle to regulate.

2.6.3 Psycho-social Factors

There are other theories that show that ADHD is not necessarily caused by intrinsic factors of the individual, but that there are certain factors in the person's environment and context that could have a share in the cause of this disorder. Substantial research exists that indicates a link between ADHD and environmental factors (Richards, 2012). The role of the family system and social context in a person's life can correlate and contribute to hyperactivity, inattentiveness and impulsiveness (Barkley, 2007; Carr, 2006; Rinsky & Hinshaw, 2011). Some theories argue that individuals who are continuously exposed to high levels of stress, depression, substance abuse themselves and exposure to lead will show symptoms similar to that of ADHD (Carr, 2006; Richards, 2012). Other factors that also contribute to these symptoms are low socio-economic status, little parent support and/or neglect, problems with peer relationships as well as parent-child relationships, co-morbid disorders, academic difficulties and poor diet (Richards, 2012).

2.6.4 Maintaining Factors

As mentioned at the start of this section, not only are there valid explanations for the cause of ADHD and the symptoms of it, but there are also factors which maintain these symptoms and affect a person's functioning in all areas of life. With referral to Bronfenbrenner's bio-ecological model, there are certain intrinsic factors such as the person characteristics of a person (see 2.2.2) that can maintain the symptoms of ADHD. Symptoms such as biological factors, poorly developed internal speech and regulation of executive functioning and emotions, co-morbid disorders (specifically learning difficulties

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and poor coping strategies) can increase and maintain these symptoms of ADHD (Carr, 2006). These are all factors that can contribute to, and maintain, the symptoms of inattentiveness, hyperactivity and impulsivity. There are also those factors outside of the individual and those in the environment that contribute to the symptoms manifesting throughout one's lifespan and in different areas of functioning (Richards, 2012). Such factors are conflict between parent and child or with peers and siblings, negligent relationships with parents, inconsistent parenting, not seeking treatment of coping strategies to regulate the symptoms and teachers not being aware of what the symptoms of ADHD look like and thus not having the skills to address it in the classroom (Carr, 2006; Richards, 2012; Venter, 2004). Although, in contrast, it can also be argued that those environmental factors, which are more tolerant of the symptoms of ADHD and offer a more structured and supportive environment to individuals with this disorder, can help them to develop self-regulatory skills and coping strategies (Lange et al., 2005).

2.7 SYMPTOMS OF ADHD

Even though there are no specific physical features associated with ADHD, it does not mean that this disorder is not problematic. By observing a person's behavior and knowing what to pay attention to, it is possible to recognise the symptoms of ADHD. However, as noted earlier in 2.5, the symptoms of the disorder change over time and different behavior emerges at different developmental phases (Barkley, 2000; Fisher, 2007). The characteristic behavior observed when a child was 7 years old will differ quite significantly from when he/she is 17 years old. Certain symptoms feature throughout the individual's life regardless of the developmental age, while other symptoms feature more specifically in certain age groups.

The most prominent symptoms will be discussed under five main categories: i) Key symptoms throughout life span; ii) Pre-school age; iii) Childhood; iv) Adolescence and v) Adulthood. It is important, though, that one bears in mind that these symptoms are general descriptions applicable to the different developmental phases and that it can differ according to individual and environmental influences (Fisher, 2007). Also, that all

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aspects of development are interrelated across the various developmental stages, i.e. a child's emotional development in one stage, may affect her social relationships in another developmental stage (Donald et al., 2010).

2.7.1 Key symptoms throughout life span

Certain symptoms feature in all people diagnosed with ADHD regardless of their age or the developmental phase that they are in. People with ADHD show low frustration tolerance resulting in temper outbursts, stubbornness and bossiness which in turn affects their social relationships (APA, 2000; Carr, 2006; Clark, Prior & Kinsella, 2002). They experience difficulties with higher-order cognitive processes which lead to poor self-regulation and deficits in problem-solving abilities (Clark et al., 2002). The poor self-regulation contributes to difficulties with the management of emotions which results in unpredictable mood swings (Kendall, Wagner & Ruane, 2011). This causes them to find it difficult to regulate or adapt their behavior to fit the situation. Other symptoms that feature are that the individuals with ADHD often show delays in language development, difficulties with language output and internalisation of speech (Carr, 2006). In general, people with ADHD seem to show lower self-esteem and tend to be highly anxious. Due to their awareness of the effects of this disorder, some people with this disorder may become very attentive to execute tasks correctly and behave in an acceptable manner. This can cause them to become compulsive and perfectionistic which only increases their anxiety (Fisher, 2007).

The more specific symptoms differ according to the subtype of ADHD, i.e. inattentive, hyperactive or combined and are applicable to both boys and girls with the disorder. Those diagnosed with the ADHD hyperactive subtype often appear overactive or restless (Welsh Assembly Government, n.d.). This is possibly due to the low dopamine and noradrenaline levels in the brain which cause them to struggle with impulse control. It leads them to respond to all impulses making it difficult for them to react in an appropriate manner. Compared to the average person of the same age, they pay more attention to information in their surroundings and find it difficult to distinguish between

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what is important and what is not. Their impulsive nature prevents them from stopping, considering the situation, deciding on an appropriate reaction and then acting on it which is the reason for them often being described as thrill seekers (Carr, 2006; Welsh Assembly Government, n.d.). On the other hand, people diagnosed with the inattentive subtype often appear as if they are daydreaming, drowsy, apathetic, they process information slower than the average person, they exhibit memory deficits and they find it difficult to complete tasks (Carr, 2006; Mash & Wolfe, 2013).

2.7.2 Pre-school age

Children develop in different areas of their life from infancy through to adolescence (Ganly, 2010). The areas most crucial to development are physical, communication, cognitive, social-emotional and motor skills (Ganly, 2010; Harty & Alant, 2005). The pre-school age refers to children from the age of 2 through to 6 and it is during this time that their communication and language skills develop greatly, their creativity and curiosity increase, their energy levels spurt and they appear much more interactive and social (Ganly, 2010; Hart & Alant, 2005; Louw & Louw, 2007). Therefore, when considering these characteristic developments of this developmental age, it can be argued that it is difficult to identify symptoms of ADHD in this age group. Being active, talkative and easily distracted is part of a child's development at this age due to their language developing and their curiosity. One would then wonder what the symptoms will be for a child of this age with possible ADHD. According to Barkley (2000) these symptoms feature among all children in this age group but decrease in time. If the symptoms are excessive and difficult to contain, compared to other children of the same age, and it persists for more than a year, ADHD is likely (APA, 2000; Barkley, 2000).

Other symptoms to look out for in children in this age group with possible ADHD is that they appear excessively restless and active, especially children with the hyperactive type who are often described as "constantly on the go" and "as if driven by a motor" and excessive climbing over and into things. During infancy the child's self–regulation is external and depends on the primary caregiver to regulate the baby's actions (Stroud,

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Hardman & Harrison, 2012). However, during the pre-school developmental phase the child starts to internalise his/her self-regulation, thus taking control of own behavior. Children with ADHD struggle with self-regulation and can be emotionally very demanding on their parents and other family members. They often demand persistent attention, their curiosity is unquenchable and they appear inquisitive but they struggle to adapt to changing environments. Although temper tantrums are common among children in this age group, the frequency and intensity of moodiness and anger outbursts are much greater in children with ADHD (Barkley, 2000).

2.7.3 Childhood

Children in this developmental stage are between the ages of 6 and 11. During this stage children are very focused on friendships and social interaction with their peers (Ganly, 2010). Although they start to interact with a wider range of contexts and start spending more time unsupervised by adults, the family's influence on their development is still very important (Wild, 2012). Moral development is one of the major developmental tasks that should be mastered during this phase (Louw & Louw, 2007). The child becomes much more focused on rules, obeying them and using rules to provide structure and security to their perceived worlds and they become more adaptable to their environments (The Institute for Human Services for The Ohio Child Welfare Training Program, 2007, pg. 7). It is during this developmental stage that the effect of ADHD symptoms becomes more prominent (Louw & Louw, 2007).

For school-age children with ADHD their symptoms jeopardise these milestone developments which can cause them to experience difficulties, especially in school and in social relationships. They seem to struggle to obey school rules and their academic performance gets affected (APA, 2000). Their social relationships might also be hampered because they experience difficulties taking turns and often appear to be not listening when spoken to. They often find it difficult to participate in conversations because they tend to interrupt others or talk excessively and they struggle to regulate

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their tempers, resulting in aggressive outbursts directed at peers, teachers and family members (Clark et al., 2002).

2.7.4 Adolescence

The age group that falls in this development phase is children between the ages of 12 to 18 and refers to the transition between childhood and adulthood (Ganly, 2010; Schwartz, Donnellan, Ravert, Luyckx & Zamboanga, 2013). It is in this stage that children enter puberty which involves physical changes, psychological and social changes as well as formal critical and abstract thinking (Nordqvist, 2012; Schwartz et al., 2013). Psychological development during adolescence involves that the individual starts to establish a sense of identity and learns to cope with the demands of adulthood, such as stress and managing one's emotions (APA, 2002). Adolescents are often described as emotionally more unstable than when they were younger and that they tend to experience regular mood swings (Louw, Louw & Ferns, 2007). Wild and Swartz (2012) mention, however, that many researchers nowadays believe that this idea is over exaggerated. Although emotional dysregulation is not part of the DSM criteria, this is a very significant characteristic of people with ADHD and can have a detrimental effect on their daily functioning (Barkley, 2012).

One of the most obvious changes during this developmental stage is the focus on peer relationships and the shift from family to friends (APA, 2002; Ganly, 2010). Being accepted by peers becomes very important and has a large impact during adolescence and even adulthood. It is a stage where experimenting with alternatives is developmentally appropriate and it is very likely that adolescents will be confronted with peer pressure (APA, 2002). There also occurs a change in cognitive abilities to think critically and creatively, and the need to concentrate for longer increases drastically (Ganly, 2010). The demands of school increase and time management becomes crucial as children need to focus on balancing their time between the demands of school, extra-curricular activities and friends (Fischer, 2007).

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There was a time where it was thought that children outgrow ADHD and that it does not persist into adolescence, but recent studies have proven that it does continue into this developmental stage (Walker et al., 2011). The inattentive symptoms persist but the expression of the hyperactivity symptoms changes over time from gross motor hyperactivity to a sense of internal or mental restlessness (Walker et al., 2011; Weyandt & DuPaul, 2008). For adolescents with ADHD this developmental stage can become very stressful and difficult. According to Walker et al. (2011) adolescents with ADHD suffer from higher emotional, social and academic difficulties than their peers who do not have this disorder. The physical changes, specifically hormonal, can cause distress amongst these individuals causing emotional turmoil such as sadness, depression, poor self-confidence, frustration, being short tempered and anger outbursts (Barkley, 2000; Wolraich et al., 2005). Wolraich et al. (2005) further state that adolescents with ADHD often appear emotionally immature when compared to their peers.

They experience problems with peer relationships and struggle to be socially accepted (Clark et al., 2002; Langley et al., 2010). The desire to be socially accepted, which is typical of this developmental stage, and the impulsive and thrill-seeking nature of ADHD often causes adolescents with ADHD to easily give in under peer pressure. They are more likely to show risky behavior such as substance abuse, doing daring activities and having unprotected sexual intercourse (Barkley, 2000). They frequently have conflict with peers and struggle to build and maintain friendships (Rinsky & Hinshaw, 2011). These children also struggle academically. They get bored easily at school, become easily demotivated, reading and writing can become a major issue for them and they often underachieve (Fischer, 2007). This leads to a large number of children with ADHD having failed at least one grade during their school career and some of them quitting school before completion (Barkley, 2000).

One can argue that the symptoms as discussed are applicable to any adolescent with or without ADHD. This is true, but the emphasis falls on the fact that these symptoms and behavior are highlighted and more prominent amongst adolescents who are diagnosed

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with ADHD. For the purpose of this study the focus is specifically on this developmental stage.

2.7.5 Adulthood

According to the Psychology Dictionary (n.d.) adulthood refers to the life stage where physical maturation has been completed and certain mental, cultural and individual characteristics have also been established. People in this developmental stage are usually between the ages of 19 to 60 and even older than that. Between 50-65% of children with ADHD continue showing symptoms into adulthood (Barkley, 2000). Many of them deal with the same problems as they did during childhood and adolescence. Social relationships continue to be a challenge and adults with ADHD will have developed a specific interpersonal style of communication that can be interpreted negatively by others (APA, 2000; Bramham, Young, Spain, McCartan & Xenitidis, 2009). They often feel isolated from their peers and experience relationship difficulties. Adults with ADHD also struggle emotionally. They tend to internalise their difficulties which cause them to have low self-esteem, low mood, depression and anxiety (Bramham et al., 2009; Neary, 2007).

Another area of distress for adults with ADHD is the world of work. The difficulties that these individuals struggle with at school also affect their jobs in adulthood. They struggle to establish and maintain a routine, they have poor self-discipline, they show a lack of organisation skills and their job performance is often below their competence (Barkley, 2000; Neary, 2007). This causes significant occupational problems as these individuals struggle to find and keep a job, they struggle to work independently and they find it difficult to meet deadlines and keep to the work schedule (APA, 2000; Barkley, 2000). Although the hyperactive symptoms diminish as the individual gets older, it gets replaced in adults with a feeling of being restless, fidgety and more tense (APA, 2000). Therefore, the symptoms of the underlying ADHD do not necessarily affect adults so intensely, but the demands and responsibilities of adulthood put much more pressure on

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a person and thus increase the seriousness of the disorder in this developmental stage (Barkley, 2000).

2.8 DIAGNOSIS

It is evident that the symptoms of ADHD are very similar to the normal signs of certain developmental stages as well as other disorders which make it difficult to sometimes distinguish between when a child has ADHD and when not. The difference is that the symptoms are more excessive when compared to individuals of the same age or same developmental phase (Louw & Louw, 2007). Due to these symptoms being similar, it is possible that individuals will never be diagnosed and will not receive the necessary support or, on the other hand, that some individuals can be diagnosed wrongfully. This is also applicable when comparing the symptoms of ADHD to some other disorders. It can lead to people being misdiagnosed. The symptoms of ADHD manifest differently in males than females, which also leads to this disorder being ignored or misdiagnosed amongst girls (Quinn, 2005). It is, therefore, very important that one is knowledgeable regarding this disorder and that a thorough compilation of the individual's history, together with the developmental phase, is made to be able to make a diagnosis (Venter, 2004). There are various health professionals who can identify and/or diagnose ADHD. They include neurologists, psychiatrists, family doctors and psychologists (Who Can Diagnose ADHD?, n.d).

Although the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) with the most recent diagnostic criteria for ADHD have been published in 2013, it has to be considered that all research up to date have been based on the criteria from the DSM-IV-TR. Therefore, the diagnostic criteria as described in the DSM-IV-TR (APA, 2000) will be discussed below with reference to the changes made in the DSM-5 (APA, 2013). For integration purposes of theory and the findings of this study in Chapter 5, reference will be made to the diagnostic criteria of both manuals. The diagnostic criteria from the DSM-IV-TR as used by health professionals are:

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2.8.1 Diagnostic criteria for attention-deficit/hyperactivity disorder

A. Either (1) or (2):

(1) six (or more) of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Inattention:

(a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
(b) often has difficulty sustaining attention in tasks or play activities
(c) often does not seem to listen when spoken to directly
(d) often does not follow through on instructions and fails to finish school, work, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
(e) often has difficulty organising tasks and activities
(f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
(g) often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
(h) is often easily distracted by extraneous stimuli
(i) is often forgetful in daily activities

(2) six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Hyperactivity:

(a) often fidgets with hands or feet or squirms in seat
(b) often leaves seat in classroom or in other situations in which remaining seated is expected

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(c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective fee lings restlessness)

(d) often has difficulty playing or engaging in leisure activities quietly

(e) is often "on the go" or often acts as if "driven by a motor"

(f) often talks excessively

Impulsivity

(a) often blurts out answers before questions have been completed

(b) often has difficulty awaiting turn

(c) often interrupts or intrudes on others (e.g., butts into conversations or games)

B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.

C. Some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home).

D. There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.

E. The symptoms do not occur exclusively during the course of a Pervasive Developmental Disorder. Schizophrenia, or other Psychotic Disorder and are not better accountted for by another mental disorder (e.g., Mood Disorder. Anxiety Disorder. Dissociative Disorder. or a Personality Disorder).

Code based on type:

314.01 **Attention-deficit/hyperactivity disorder, Combined Type:** if both Criteria A1 and A2 are met for the past 6 months

314.00 **Attention-deficit/hyperactivity disorder, Predominantly Inattentive Type:** if Criterion A1 is met but Criterion A2 is not met for the past 6 months

314.01 **Attention-deficit/hyperactivity disorder, Predominantly Hyperactive-Impulsive Type:** if Criterion A2 is met but Criterion A1 is not met for the past 6 months

314.9 **Attention-deficit/hyperactivity disorder, Not Otherwise Specified:** This

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category is for disorders with prominent symptoms of inattention or hyperactivity-impulsivity that do not meet criteria for attention-deficit/hyperactivity disorder.

Examples include:

1. Individuals whose symptoms and impairment meet the criteria for attention-deficit/hyperactivity disorder, Predominantly Inattentive Type but whose age at onset is 7 years or after.
2. Individuals with clinically significant impairment who present with inattention and whose symptom pattern does not meet the full criteria for the disorder but have a behavioral pattern marked by sluggishness, daydreaming, and hypo-activity.

Due to the fact that ADHD persists through the lifespan, it was considered that many individuals may never be diagnosed because they might only start showing symptoms after the age of 7 or different symptoms due to the developmental stage they are in. This consideration has been taken into account in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* and the following changes have been made to the diagnostic criteria (American Psychiatric Association DSM-5 Development, 2014):

2.8.2 Changes to DSM-5 criteria for ADHD

- Symptoms are divided into two categories of (1) inattention and (2) hyperactivity and impulsivity that include behaviors like failure to pay close attention to details, difficulty organising tasks and activities, excessive talking, fidgeting, or an inability to remain seated in appropriate situations.
- Children must have at least six symptoms from either (or both) the inattention group of criteria and the hyperactivity and impulsivity criteria. Older adolescents and adults (over age 17 years) only have to present with five symptoms.
- The ADHD symptoms must be present prior to age 12 years, compared to 7 years as the age of onset in DSM-IV-TR.

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- There are no exclusion criteria for people with Autism Spectrum Disorder because the symptoms of both disorders co-occur.
- The ADHD symptoms must not occur exclusively during the course of schizophrenia or another psychotic disorder. It must not be better explained by another mental disorder such as Depressive or Bipolar Disorder, Anxiety Disorder, Dissociative Disorder, Personality Disorder or Substance Intoxication or Withdrawal.

2.8.3 Tenth Revision of International Classification of Diseases (ICD-10)

The World Health Organisation (WHO) is an agency responsible for the Tenth Revision of The International Classification of Diseases (ICD-10) which is a standard diagnostic tool used for health management and clinical purposes (World Health Organisation, from here onwards referred to as WHO, 2010). The ICD-10 is used for multiple purposes of which one amongst others is to reimburse and direct decision-making in many countries (WHO, 2010). In the ICD-10 ADHD is classified as a hyperkinetic disorder. The APA and WHO are two separate institutional teams and, although they do not compete for superiority, it does cause complications for practitioners (Frances & Nardo, 2013). In South Africa the DSM criteria are used to diagnose ADHD but for medical aid purposes the ICD-10 codes are used. The ICD-10 codes as set out by WHO (2010) are:

F90 Hyperkinetic disorder

F90.0 Disturbance of activity and attention (Combined Type)
F90.1 Hyperkinetic conduct disorder (Predominantly Hyperactive Type)
F90.8 Other hyperkinetic disorders (Predominantly Inattentive Type)
F90.9 Hyperkinetic disorder, unspecified (Not Otherwise Specified)

With the DSM-5 already being published in 2013 and the ICD-11 only due at earliest 2015/2016, it holds the question whether the ICD-11 will adjust their criteria to correlate with the DSM-5 or whether it will follow its own schooling (Frances & Nardo, 2013). This will impact the diagnosis and intervention strategies for practitioners.

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2.9 CO-MORBID DISORDERS

There are many disorders that show the same symptoms and this makes it challenging to diagnose ADHD. Numerous studies have shown that people diagnosed with ADHD are more likely to have additional medical, developmental, behavioral, emotional and academic difficulties and present higher rates of psychiatric co-morbidity (Barkley, 2000; Walker et al., 2011). Specific co-morbid disorders include oppositional or conduct disorder (35-60%), mood disorders (18-60%), anxiety disorders (25-34%), learning disorders (12-90%), communication disorders and Tourette's syndrome (Furman, 2009; Quinn, 2005; Richards, 2012; Sattler et al., 2002; Venter, 2004). Longitudinal studies have shown that mood disorders are more common amongst females with ADHD (14%) compared to males with ADHD (5%) (Quinn, 2005).

2.10 ADOLESCENT GIRLS WITH ADHD AND…

After studying the symptoms and criteria of ADHD, one cannot deny that this disorder can have a major effect on an individual's daily functioning if not diagnosed, treated or managed. Numerous studies have been conducted and have shown that this disorder causes impairments in various areas of the individual's life. In both males and females impairments manifest in emotional, academic and interpersonal functioning when compared to people of the same age and gender who have not been diagnosed with the disorder (Babinski et al., 2011; Biederman et al., 2005; Groenewald et al., 2009). Studies do show that girls with ADHD experience more problems in these respective areas than do girls without ADHD (Babanski et al., 2011). Due to the purpose of this study and the limited scope on this topic, the focus will be on the effects of ADHD on academics, peer and family relationships of a group of adolescent girls.

2.10.1 Academics / scholastic development

One of the most common complaints amongst the parents of adolescents with ADHD is that their children experience problems in their academic work (Babinski et al., 2011;

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Wolraich et al., 2005). There are many factors that contribute to this phenomenon and it appears to be a cycle where one factor affects the other. Studies have shown that people with ADHD have above-average intellect but that, due to the brain's inability to filter and separate relevant from irrelevant information, these individuals underachieve academically (Neary, 2007). Also, due to the inattentive, hyperactive and impulsive symptoms of this disorder, the adolescents tend to give up quicker on academic tasks especially when the task requires self-discipline, concentration and self-motivation and they struggle to comply with rules and the strict structure of the classroom (Fischer, 2007; Hoza, Pelham, Waschbusch, Kipp & Owens, 2001). The underlying nature of this disorder causes impaired organisational skills, study skill deficits, difficulties in executive functioning and learning difficulties (Weyandt & DuPaul, 2008). Girls with ADHD tend to struggle more with inattention rather than disruptive behavior (Babanski et al., 2011) which also causes these girls to 'disappear' in class and teachers not picking up on their specific learning needs.

The difficulties that adolescents with this disorder experience affect their emotional state and in turn again their academic performance, almost like a cyclic spiral. Teachers and peers do not always realise how these individuals struggle with the demands of school. This results in teachers, parents and peers becoming impatient with these adolescents and criticising them for not always performing according to their academic ability. This can lead to these individuals experiencing a high level of anxiety and a fear of their teachers and parents concerning school work (Fischer, 2007). These emotional factors have an impact on their motivation and can lead them to develop a dislike for school, poor grades, careless work and procrastination (Fischer, 2007).

2.10.2 Peer relationships

Blachman and Hinshaw (2002) refer to the duality of peer relationships in that it refers to i) how the individual experiences peer relationships in general and ii) what contribution the individual self makes towards these relationships. Adolescents with ADHD experience a lot of difficulties with peer relationships. This can lead to many other

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challenges seeing that friends are of heightened importance during this age where peer relationships are central to establishing a sense of identity and competency (Elkins et al., 2011). The nature of the difficulties experienced by these individuals is broad and is usually caused by their inability to relate to their social environment due to their inattention, hyperactivity and impulsivity (Walker et al., 2011). These symptoms seem to interfere with their ability to have positive interaction with their peers and cause them to feel rejected, neglected, have poor friendship stability and they struggle to process and deal with frustration due to these social difficulties (Sciberras, Ohan & Anderson, 2012). Having trouble with friendships and feeling accepted contribute to feelings of depression and anxiety, especially amongst females (Blachman & Hinshaw, 2002). According to Berry et al. (as cited in Blachman & Hinshaw, 2002, p. 626) children with ADHD, particularly the inattentive type, are often ignored rather than rejected by their peers and this happens more often with girls within this subtype than boys.

According to Fischer (2007) the symptoms of ADHD (inattention, hyperactivity and impulsivity) cause social impairments that affect peer relationships negatively. This includes the tendency to tease their peers, finding it difficult to share, having difficulty compromising or seeing another side to things, being very demanding and even manipulative, struggling to take responsibility for their own actions and blaming others, and they find it difficult to manage their emotions, resulting in anger outbursts. This difficult behavior of individuals with ADHD makes them easy targets for bullies or they are easily rejected. The result of this behavior can lead to different outcomes. It either contributes to underlying anxiety, having a fear of peer rejection, depression and low self-esteem, causing these individuals to withdraw (Fischer, 2007). Alternately these adolescents become so focused on being accepted that they can easily give in to peer pressure, causing them to take part in risky behavior with the primary goal to be accepted by their peers. Therefore, positive, close peer relationships, in particular for girls with ADHD, are very important (Blachman & Hinshaw, 2002).

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2.10.3 Family relationships

Family plays a very important role in an individual's life as this provides an environment where emotional, social and behavioral competencies are developed (Dunn, as cited in Hauser-Cram, Cannarella, Tillinger & Woodman, 2012, p. 556). The sibling-relationships and the parent-child relationship play a very important role in a child's adjustment, well-being and self-esteem (Hauser-Cram et al., 2012). Therefore, when there is a member in the family who has a particular difficulty or disorder, it can have a major impact on the rest of the family members. Such difficult circumstances place a lot of stress on family members and can lead to parents having to divert their attention from one child to the other who requires more attention due to his or her difficulties (Mitchell & Hauser-Cram, 2009; Wolraich et al., 2005). This split and imbalance in attention can affect the different family relationships negatively.

These negative effects are also true in families where one or more of the children are diagnosed with ADHD. It is a very challenging task for parents to raise a child with ADHD (Briscoe-Smith & Hinshaw, 2006; Lange et al., 2005; Quinn, 2011). According to Fischer (2007), one of the biggest problems these families have is the difficulty of the parents to manage their time and to divide their time equally amongst all the siblings. Children and adolescents with this disorder demand a lot of time and attention. Although this attention is mostly negative, it still causes the other siblings to lose out on time with their parents. This often results in siblings disliking the one with ADHD and can sometimes be mean to them or blame them for everything that goes wrong in the house. This negative attention affects the individual with ADHD causing him/her to be anxious, have higher levels of stress, have a low self-esteem and feeling responsible for all the problems in the house (Fischer, 2007; Weyandt & DuPaul, 2008).

2.11 INTERVENTION STRATEGIES

Due to ADHD being a result of the interplay of both biological and environmental factors, it is important that interventions address both. Researchers, for example Antonucci

(2007), stress the need for a multi-modal approach to addressing this disorder. Intervention strategies should address the symptoms and behavior as well as the maintaining factors in the environment. Effective intervention often includes medication, psychotherapy, educational support and lifestyle adaptations and accommodations (Quinn, 2005; Snyman & Truter, 2010). The various intervention options will be discussed next.

2.11.1 Stimulant medication

Stimulant medication has always been the more preferred intervention for ADHD than behavioral programmes. This form of intervention is most studied and regarded as the most effective (Mash & Wolfe, 2005). The most popular medication prescribed for ADHD is methylphenidate (Ritalin and Concerta) and dexamphetamine (Dexedrine, DextroStat and Adderall) (Balrow & Durand, 2012; Carr, 2006; Mash & Wolfe, 2005; Wolraich et al., 2005). Most recently a non-stimulant, called atomoxetine (Strattera), has been introduced to treat ADHD and was first administered in South Africa only in 2005 (Barlow & Durand, 2012; Snyman & Truter, 2010). These various forms of medication are usually prescribed in collaboration with the family doctor, a paediatrician and/or child psychiatrist and very often a psychologist (Carr, 2006).

Methylphenidate (Ritalin) and dexamphetamine (Dexedrine and DextroStat) are effective for only four hours and is therefore prescribed to be taken twice a day, in the morning and in the afternoon (Carr, 2006). These stimulants target the activity of that region of the brain which specifically affects the neurotransmitter dopamine which helps the child to focus and pay attention (Mash & Wolfe, 2005). Concerta, a long-acting methylphenidate, and Adderall, a slow-releasing amphetamine, have been developed that last up to 12 hours and only needs to be administered once a day (Carr, 2006). The advantage of the extended-release medications is that the effect on behavior lasts longer and it is not necessary to take the medication at school which eliminates name-calling and stereotyping (Wolraich et al., 2005). Strattera, on the other hand, focuses on the production of noradrenaline which is important for increased attention span and a

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reduction in impulsivity and hyperactivity (Nonstimulant Therapy and Other ADHD Drugs, n.d.).

These medications do, however, also have negative effects. Common side effects that have been reported by individuals taking the various types of medication include loss of appetite, headaches, stomach ache, growth suppression and sleeping difficulties (Carr, 2006; Mash & Wolfe, 2005). One concern regarding Ritalin specifically is that it can be abused due to its ability to create elation and reduce fatigue (Mash & Wolfe, 2005). The difficulty that these medications hold amongst adolescents is that they have a negative attitude towards the administration of the medication which leads to many adolescents not adhering to taking their medication regularly (Hazell, 2007; Wolraich et al., 2005). This results in their symptoms affecting their behavior and thus having a negative outcome in many areas of functioning. According to Quinn (2005, 2011), prescribing stimulant medication to females/girls is very complex due to the hormonal fluctuations during the menstrual cycle across their life span. It makes it more difficult to prescribe the correct dosage and thus controlling the symptoms and their manifestations.

2.11.2 Psychotherapy

Although medication is a common intervention strategy to address ADHD, it is also true that medication alone is not effective and that it treats the symptoms but not the disorder itself (Fisher, 2007; Neary, 2007). Psycho-education falls within the scope of practice of educational psychology (HPCSA, 2011) and it is, therefore, very important to educate the child itself as well as the parents about their child's ADHD. They need to be informed about the nature of the disorder, the various types and combinations of intervention as well as support that can be provided at home and at school (Carr, 2006). This psycho-education can be done by providing information to the child and parents, directing them to credible websites and books where they can read about the disorder themselves and also to provide them with information on possible parent support groups in the close vicinity.

Individual psychotherapy is also beneficial to the child itself. The medication is helpful in treating the manifestation of the symptoms, but it still does not address the effects and consequences that ADHD has on the child. As discussed in 2.7.4 girls are especially affected emotionally. With psychotherapy one can provide support to the girl to gain insight into her emotional and interpersonal challenges and then guide her to learn managing and coping strategies (Quinn, 2011). Cognitive behavioral therapy is an approach where the focus is on attempting to change the brain's functioning and in turn changing the manifestation of the ADHD symptoms (Carr, 2006; Fisher, 2007). It reduces destractibility and improves organisational skills (Barlow & Durand, 2012). The focus of psychotherapy differs depending on the demands of different developmental phases as well as the person characteristics of the individual.

Parent and family counselling can also be beneficial. It puts a lot of strain on parents to raise a child with ADHD. This often makes them feel incompetent and powerless which often leads to frustrated behavior that maintain or even increases the child's ADHD behavior (Mash & Wolfe, 2005). It is therefore necessary to support parents with developing skills on how to manage their child's behavior; like reinforcement programs or behavior charts, coping with the emotional difficulties and containing the behavior to an extent where it is least destructive to other members of the household (Barlow & Durand, 2012; Mash & Wolfe, 2005). Family therapy can be beneficial not only for the parents but also for the siblings who do not have ADHD but are affected by this disorder. In the process everyone can learn how to communicate and accommodate each other (Carr, 2006).

2.11.3 Educational support

It has become evident that ADHD is a disorder which affects all areas of functioning on a daily basis. Therefore, this disorder also affects the individual's school experience and performance. Children with ADHD often need learning support at school which will enable them to work optimally and reach their full potential. In primary school such support is often in the form of placement in class and additional learning support whilst

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in high school it is more in the form of study skills training and concessions (Carr, 2006). The intervention suggestions given to parents are very similar to those given to teachers. Setting goals, reward systems and breaking instruction into smaller sections are but a few suggestions that can be used in the school context (Carr, 2006; Mash & Wolfe, 2005).

2.11.4 Lifestyle adaptations and accommodations

Intervention strategies exist which include a more naturalistic approach and adaptations to one's lifestyle and diet. A poor diet and a shortage of various important nutrients can have a negative impact on children with ADHD (Pellow, Solomon, Barnard, 2011). Research has shown that diets that contain zinc, magnesium, omega 3, lecithin and vitamin B decreases the symptoms of ADHD (Neary, 2007; Pellow et al., 2011). Homeopathic interventions consist of a mixture of medicines (called the similimum) that is specially mixed according to the characteristics of the individual's illness (Frei, von Ammon & Thurneysen, 2006; Pellow et al., 2011). This form of intervention is becoming more and more popular as an intervention option for ADHD although supportive evidence is often questioned.

2.12 CONCLUSION

In this chapter I have provided an overview regarding ADHD and how it affects adolescents and in particular adolescent girls. The theoretical framework which directs this study was discussed as well as the various theories on the cause of ADHD, the primary symptoms of this disorder, the diagnosis and intervention strategies. It was further discussed how ADHD manifests across the different developmental stages of an individual's life. Specific attention was given to females with ADHD and how this disorder manifests in the areas of academic performance, social and family relationships, seeing that this is the focus of this study. Due to the lack of knowledge regarding ADHD and adolescent girls both internationally and nationally, this study

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hopes to contribute to exploring this gap and in this manner develop better understanding and support for this very specific group with this disorder.

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CHAPTER 3

RESEARCH DESIGN, METHODOLOGY AND ANALYSIS

3.1 INTRODUCTION

The purpose of this study was to explore, analyse and describe how adolescent girls experience the effects of ADHD in various areas of their lives. To be able to collect valuable data to answer the research question, it was important that I followed a well-planned approach. Methodology is a collection of techniques which are well-researched and implemented in a practical manner (Henning et al., 2004) that enabled me to gain a better understanding of a phenomenon that was studied (see also 1.4.5). The participants were presented with the opportunity to voice their experiences and act as authors of the knowledge gained during this study. They shared their unique perspectives and experiences about their own reality (Shaw, Brady & Davey, 2011). In this chapter I will discuss the process of the enquiry by using the steps as explained by Silverman (2006) which include the research design, the context in which the study was conducted and the strategy used to do so.

3.2 RESEARCH DESIGN

The research design is the framework which guides the researcher to conduct the study in such a manner that valid results are ensured. It serves as the “blueprint” on which the planning and strategising of the study is conducted (Kumar, 2011). The research design consists of various steps that are followed to ensure accuracy, validity and objectivity (Silverman, 2006; Kumar, 2011) and will be discussed accordingly (see also 1.4). Due to the nature of this study and the purpose of gaining knowledge about a specific area of focus, I decided that a case study design would be appropriate for conducting this study (see also 1.4.4). According to Merriam (1998, p.27), a case study refers to researching a case which is a bounded system that is “a thing, a single entity, a unit around which there are boundaries.” It investigates a phenomenon in depth and within its particular

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context (Yin, 2014). It is necessary to note that a case as such is considered a "bounded system" which can consist of either one individual or a group of people who have something in common. Case study research focuses on a certain phenomenon present in a given group and is aimed at gaining as much information possible about this phenomenon as it presents in this group (Flyberrg, 2006; Merriam, 1998). It is a design type that focuses on gaining insight and describes a phenomenon rather that testing a hypothesis (Merriam, 1998). In this specific study the bounded system is a group of adolescent girls with a specific disorder, namely ADHD, in common. Specific techniques, as discussed further in this chapter, were chosen and used within this case study to gain the relevant information to answer the research question (see also 1.4.5 and 3.5).

Case study research, as any other research design, has its strengths and limitations. In her book, Merriam (1998) discusses these strengths and limitations in detail. She mentions that the strength of this research design is that it allows one to gain in-depth information regarding a phenomenon which is complex in nature and is influenced by various factors. Gaining information from adolescent girls with ADHD was a difficult task considering that their experiences are influenced not only by their own understanding of the disorder but also by other people around them as well the context that they find themselves in. The second strength of this research design is that it provides real-life information that can be utilised in future studies relating to the same phenomenon and similar contexts. As mentioned in 1.3, one of the aims of this study is to gain information in order to provide a better understanding of ADHD and to provide recommendations for supporting these girls.

The criticism that exists against case study research is that it can oversimplify or exaggerate the information gathered during the study (Guba & Lincoln, cited in Merriam 1998). It can also lead the readers to generalise the findings to a bigger population, forgetting that the case (sample) is only a small representation of the phenomenon (Merriam, 1998) and, as mentioned earlier, it is context bound. A third limitation to this type of research design is that the credibility, transferability, dependability and confirmability are then questioned. These four factors will be discussed in more detail

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later in this chapter (see 3.7) as well as the strategies that I used to address the possible weaknesses.

3.3 CONTEXT AND PARTICIPANTS

This study was conducted within the interpretive paradigm which views the social world as constantly being constructed through social interaction and that reality can be understood by interpreting subjective perspectives (Hesse-Biber & Leavy, 2011; Lincoln et al., 2011). Events and phenomena are perceived through the interactions of individuals and/or groups which are influenced by their social contexts (Henning et al., 2004). This context, as mentioned above, can be described as the conditions that exist when an event, phenomena or idea occurs (Merriam-Webster Dictionary, 2014). In case study research one wants to understand a real-life case which is influenced by its context (Yin, 2014). Therefore, context plays a pivotal role when conducting a research study which is also why I chose to conduct the study within the bio-ecological framework as discussed in 2.2.

3.3.1 The research environment

The school where this study was conducted is a co-ed and parallel-medium high school situated in the Cape Helderberg Region of the Western Cape. The school is a mainstream school and currently serves about 1,200 learners from Grades 8 to 12. Learners who attend this school come from various surrounding areas and are from diverse cultural, religious and socio-economic backgrounds. Learners from all walks of life are accommodated and there are learners with physical disabilities as well as learning difficulties such as visual and hearing difficulties, ADHD, Autism Spectrum Disorder and many more. In an attempt to accommodate these learners in a mainstream school and practicing inclusive education, various programmes and systems have been put in place over the years in an attempt to support and add to the development of the learners in the school. One such system is the establishment of a Counseling Department with a permanently employed, full-time counseling psychologist as well as a

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registered counselor. This department has offices on the premises with a separate, private entrance for learners and parent(s)/guardian(s). The aim of this department is to provide emotional and psychological support to each learner in the school at no extra cost.

3.3.2 The participants

My motivation for conducting this study is that very little research has been done on the experiences of adolescents with disabilities in general (Mullins & Preyde, 2013). With regards to ADHD specifically, most studies focus either on pre-adolescent children or young adults, predominantly male. There has only been a small number of female participants in previous studies regarding this topic and little is known about the effects of ADHD on adolescent girls (Biederman et al., 2005; Quinn, 2005; Swanson et al., 2012). Due to the nature and focus of this study all participants had to meet the following criteria:

- Female
- Between the ages of 13 and 18 years old
- Diagnosed with ADHD (inattentive, hyperactive or combined type) at least 6 months prior to this study by a trained health professional
- Currently attending the above mentioned high school

A letter of invitation was emailed to all parents with daughters in the school (see Addendum D) and participants were invited to volunteer for the study. They were requested to complete an information form which was attached to the email and contained the necessary contact details. Contact was made either telephonically or electronically with the parent(s)/guardian(s) to schedule a meeting. According to Yin (2014) all participants have to be informed about the nature of the study and their voluntary participation should be formally requested. The ethical issues with regards to consent and assent will be discussed in detail further on (see 3.4).

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Seven female participants volunteered to take part in the study. *Table 3.1* contains the background information of each participant as it was provided on the contact detail form (see Addendum E) as well as after consulting each one's personal documents (with their permission).

Table 3.1: Background Information of participants

	*PARTICIPANT	AGE	GRADE	LANGUAGE	TYPE OF ADHD			AGE WHEN DIAGNOSED	PRESCRIBED MEDICATION		CURRENTLY ON MEDICATION		AREA MOSTLY AFFECTED		
					I	H	C		YES	NO	YES	NO	A	P	F
1	Anri	14	9	Afr	x			8	x			x	x		
2	Carmen	15	9	Eng	x			8	x		x		x	x	x
3	Ché	15	9	Afr			x	8	x		x		x		
4	Elana	16	10	Afr	x			11	x		x		x		x
5	Faith	15	9	Eng			x	7	x		x		x	x	
6	Kayla	14	9	Eng			x	6	x		x		x	x	x
7	Lize	15	9	Afr	x			13	x			x		x	

I=Inattentiveness; H=Hyperactivity and C=Combined

A=Academic; P=Peers and F=Family

**Pseudonyms were used for confidential purposes.*

According to the information presented in *Table 3.1*, all seven participants were between the ages of 14 and 16 at the time when the study was conducted. Six of the seven participants were in Grade 9 and one was in Grade 10. Four participants have been diagnosed with the inattentive type whilst the other three participants have been diagnosed with the combined type. The background information depicted that five participants were diagnosed in the childhood phase and two were diagnosed in the pre-adolescent/adolescent phase. Medication was prescribed to all seven participants but two are not administering it any more. When the participants were asked to indicate in which area they experienced to be mostly affected by ADHD, two of them indicated all three areas. Six of them indicated in their academics, four in peer relationships and three in family relationships.

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3.4 STRATEGY

To ensure that in-depth information is gained through-out this study, it was necessary to use a well-designed strategy. This strategy one uses refers to a plan which includes specific methods and techniques to achieve this goal (Merriam-Webster Dictionary, 2014; Silverman, 2005). In order for me to have been able to apply this strategy and to obtain useful data, it was important to follow the required ethical procedures (see also 1.6):

3.4.1 Ethical considerations

The welfare and protection of the participants were taken into consideration throughout the duration of this study. Due to the nature of this study involving children, it played an even more important role to ensure that good ethical practice was followed. After the research design was compiled, it was submitted and ethical clearance was obtained from the Research Ethics Committee: Human Research (Humaniora) of Stellenbosch University (See Addendum A). Permission was also obtained from the Western Cape Education Department (WCED) (See Addendum B). After permission to pursue this research was granted, the school principal was approached. A document with a detailed explanation was provided in which the purpose of the study was explained as well as the techniques that would be used (See Addendum C). Permission was requested to gain access to the email addresses of the parent(s)/guardian(s) with daughters in the school as well as to consult relevant documentation, upon permission of the parents, if necessary. Permission was granted by the principal and one of the counselling offices on the school premises was made available in which all the interviews were to take place after school hours.

3.4.2 Permission from parent(s)/guardain(s)

It is considered unethical to pursue research and gain information from participants without them having an understanding of what the research is about or agreeing to

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participate (Kumar, 2011). It is important that the participants have the capacity to provide consent without feeling forced. According to Schinke and Gilchrist (cited in Kumar, 2011) the process of obtaining informed consent must meet three criteria: the participants must have the capacity to understand what the study is about and to be able to give consent/assent, the provided information must be sufficient enough to enable the participant to make an informed decision and consent must be voluntary.

In order to uphold these ethical requirements, an email was sent to 598 girls' parent(s)/guardian(s). This email included a document in which the complete research design was explained in detail (see Addendum D) and learners were invited to participate in the study. Those girls, who were interested, were requested to complete an information sheet together with their parent(s)/guardian(s) and to provide their own contact details. A total of seven participants responded and their parents were contacted via telephone or email to schedule an appointment. The ethical considerations with regards to research on children, in this particular case the adolescent girls, require that each participant should have the capacity to understand what the research entails as well as to provide informed assent (Darian-Smith & Henningham, 2012). For this purpose interviews were scheduled with the parent(s)/guardian(s) together with the participant where the research design was explained again and an opportunity was provided for any questions. A written consent form (see Addendum F) was signed by the parent(s)/guardian(s) and a separate assent form (see Addendum G) was signed by the participant.

3.5 METHODS AND TECHNIQUES

It is important that one chooses a collection of techniques which will serve as a medium through which meaningful information can be gathered from the collected data (Silverman, 2000). When choosing these techniques the challenge lies in ensuring that the research process is enjoyable and appropriate for the participants whilst at the same time meaningful and useful information can be collected (Shaw et al., 2011). In addition, it is important to consider the strengths and weaknesses of each technique as it can

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affect the validity of the data (Kumar, 2011). In this study I made use of three techniques which will be discussed, together with the advantages and disadvantages of each, accordingly (see also 1.4.5):

- Individual interviews;
- Reality boxes;
- Focus group interview.

3.5.1 Individual interviews

An interview is a particular conversation between the researcher and participant(s) around a theme or point which is of mutual interest to all parties (Hessy-Biber & Leavy, 2011; Kvale & Brinkmann, 2009). In qualitative research the information is shared through social interaction. By applying interviewing as a research technique one recognises people's ability to express their lived experiences through language (Seidman, 2006). Seeing that the aim of this research was to focus on the lived experiences of these adolescent girls, I chose individual interviewing as an appropriate technique. I chose to use semi-structured interviewing which refers to a type of interviewing where the participant explores and shares her experiences within a specific topic that is being discussed (Seidman, 2006). This type of interviewing was chosen as I wanted to ensure that the same topics were discussed with all participants but also to allow flexibility for each participant to share her own experience of that topic.

In order to establish rapport and a comfortable atmosphere with each participant, as well as to ensure that quality information was gathered, a general interview guide approach was implemented (see Addendum H). This approach ensured that the same areas of information were collected from each participant. An interview guide is a script which is more structured and guides the topics that are discussed but still allows a measure of freedom to adapt the conversation in such a way that the required data is collected (Kvale & Brinkmann, 2009; Valenzuela & Shrivastava, n.d.). Four individual interviews (see Addendums H) of 60 minutes each were conducted with each participant in which a

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specific topic was discussed, i.e. academic performance, peer relationships and family relationships. These interviews occurred once a week. Each interview guide had several themes that revolved around the specific topic of discussion during that particular interview. This ensured that all the themes were covered with each participant. Under each theme there were open-ended questions which allowed the participants to explore their experiences on each topic and to describe their subjective reality (Henning et al., 2004; Seidman, 2006). All these individual interviews were recorded, with the permission of the participants, and thereafter transcribed into text for analysis. See Addendum I as example of an excerpt of a transcribed interview.

As mentioned earlier, interviewing is a conversation between the researcher and the participant. One advantage of this technique is that it keeps the conversation anchored in the lived experience as told by the participant (Marshall & Rossman, 2011; Shaw et al., 2011) and it is an appropriate technique to be used for any age population (Kumar, 2011). Considering that the participants were all children and the focus of this study was on how they experience their ADHD, I chose interviewing as an appropriate technique. An interview also makes it easier to explain questions which are misunderstood in order to elicit appropriate and in-depth information from the participant (Kumar, 2011).

The technique of interviewing also holds some disadvantages and in this study particularly, I had to be very sensitive to this. A one-on-one interview with a child holds the difficulty of a power imbalance relationship between the researcher (adult) and the participant (child) which puts the participant in a position where he or she feels compelled to provide answers which are considered acceptable to an adult (Shaw et al., 2011; Zartler & Richter, 2012). Although this was not the intention of the study, I had to pay careful attention to this and had to remind the participants, on a regular basis, that they are the experts in our conversations and that they had the freedom to share any information in any way they chose. I was required to change my use of language to be more age appropriate and this seemed to have put them at ease. Marshall and Rossman (2011) also state that trust is very important and that it serves as the core of what the participant decides to share or not to share.

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Other weaknesses of interviewing are that they are very time consuming (Kumar, 2011) and seeing that I conducted four interviews per participant, it took up a lot of time to gather all the information. The quality of the information that one gathers during an interview is also dependent on the quality of interaction between the researcher and participant as well as the participant's ability to provide in-depth information (Kumar, 2011). This was very noticeable during my conversations with the girls. There were some of them who were able to provide very valuable information and others whom I had to probe more, without duress, before obtaining information that could be used for the study.

3.5.2 Reality boxes

Children can often find it challenging to verbalise or describe abstract issues (Zartler & Richter, 2012). It appears as if they find it easier to talk about these issues if there is an object of some sort that can prompt them and which has a connotative or personal meaning to them (Mitchell, 2008; Zartler & Richter, 2012). Considering that the participants in this study were all adolescents with ADHD, I chose to use the technique of *reality boxes*. I adapted this technique from a research study which focused on the perspectives of children in state care (Winter, 2012).

Each participant was provided with an empty shoe box after the initial interview with her and her parent(s)/guardian(s). She was requested to decorate the outside of the box according to how she thinks other people, without ADHD, perceive or experience her as someone diagnosed with this disorder. The participants were asked to bring their decorated boxes to their first individual interview where these perceptions were discussed. For each of the remaining interviews the participants were requested every time to put items or objects inside the box that represented their own experiences and feelings according to the three identified themes covered in this study, i.e. academic performance, peer relationships and family relationships (see also 1.4.5).

This specific technique was chosen for three purposes, i) to act as prompt to start the discussion during each interview, ii) to capture and maintain the participants' attention and interest and iii) to allow each participant to choose what she wanted to speak about and thus allowing her voice to be heard by giving her the prerogative to direct the discussion. Through this method the participants acted as the producers of the information, important to them, which informed this study (Theron, Mitchell, Smith & Stuart, 2011). The concrete representation of the *reality box* allows the individual to access deeper lying, abstract and emotive domains (Ebersöhn, Eloff & Swanepoel-Opper, 2010). During the focus group discussion each participant had the opportunity to share the contents of her box. With the permission of each participant, photos were taken of the contents after each interview to capture the visual data for the purpose of analysis and examples of evidence.

Interviewing as such was not sufficient for data collection as the participants were all adolescents and diagnosed with ADHD which meant that the conversations needed to capture their interest and hold their attention. The use of *reality boxes* served as a complementary technique to the interviews (Mitchell, 2008). The advantage of using this specific technique was that it served as a conversation starter and held the participants' interest for the duration of each interview (Zartler & Richter, 2012). Considering that one-on-one interviewing can hold a power imbalance between the researcher and the participant, this technique also addressed the peculiarity that existed between me (adult) and the participant (child) and it gave the participants the confidence to share information that they felt they were the experts of (Zartler & Richter, 2012).

The criticism against this technique is that it can be too subjective (Mitchell, 2008) and that the participant and I, the researcher, allocate a subjective meaning to the objects and thus bring the validity of the data into question. It was for this specific reason that I made use of a focus group interview as verification of the shared information to ensure that internal validity was obtained. Other weaknesses of this technique were that it is time consuming, especially for the participants who had to decorate the box and collect objects and the objects were not always available (Mitchell, 2008). This was addressed

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by spreading the interviews over a period of three weeks in order to grant the participants enough time to collect objects. By creating a trusting atmosphere on a continuous basis between me and each of the participants, they were comfortable enough to notify me when they were not able to find a specific object and then we would just talk about the meaning of it. The technique proved to be appropriate and the participants enjoyed sharing the objects and the personal connotation they made with it.

3.5.3 Focus group interview

The third technique used in this research was a focus group interview (also see 1.4.5). Kvale and Brinkmann (2009) define focus group interviews as an interviewing style where various viewpoints on a specific topic are elicited. The difference between this form of interviewing and a group interview is that the researcher is responsible for focusing the discussion on specific topics (Kumar, 2011). In group interviews the participants have the freedom to speak about anything they like. This form of interviewing enabled the participants to use their own language to participate and to relate to others of the same age (Morrison, 2013).

A 90 minute focus group interview was the last interview conducted in this study (see Addendum J). I explained to each participant beforehand what topics would be discussed and what they could expect. The participants had the prerogative to choose whether they wanted to participate in the discussion or not. Five out of the seven participants agreed to participate in this discussion. The sixth participant chose not to participate whilst the seventh agreed but forgot and did not arrive on the day. During this particular session each participant received the opportunity to present her reality box as well as the objects inside. This served a dual purpose as a therapeutic exercise which allowed the participants to share their experiences with other girls who have the same experiences. It further served as an opportunity to verify the data that was collected during the individual interviews. The conversation between the focus group members was recorded, upon their permission, and afterwards transcribed verbatim into text for analysis purposes. An excerpt of the transcription is included in Addendum K.

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Just as individual interviews and the reality boxes have strengths, focus group interviews also have its advantages. Firstly, it allows the participants to communicate within a group where it is less intimidating and they can encourage each other to be honest in their responses (Shaw et al., 2011). It is also time effective in the sense that one can gather valuable information from various participants in a short period of time (Kumar, 2011; Marshall & Rossman, 2011). For the purpose of this study, I used the focus group interview as a verification technique which was helpful for me to verify the information, gathered during the individual interviews, in a quick and effective manner. Another advantage of this technique was that it played a therapeutic role where the participants were able to identify and share with others in a similar life circumstance. They were able to talk about sensitive topics that were comprehended by the others.

The disadvantage of this method is that the conversation can easily be dominated by certain group members (Coombes, Appleton, Allen & Yerrell, 2013; Kumar, 2011). As personalities differ, people are often found who are more extraverted than others and who are more comfortable speaking in groups. This, together with one of the symptoms that girls with ADHD talk excessively, the focus group interview was challenging to mediate at times. In a focus group interview it is the researcher's responsibility to mediate the conversation and to ensure that the conversation does not steer off the topic and that the interview will stay on track (Hesse-Biber & Leavy, 2011). To make this possible I compiled an interview guide with specific topics that were to be covered during this interview. There were some participants who at times dominated the conversation and tended to interrupt the other girls. In order for me, as the mediator of this discussion, to ensure that everyone had a fair opportunity to speak and to share their experiences, I rotated an object in the group which served the purpose of indicating whose turn it was to speak. I, together with the group, suggested that the object should be a teddy bear and that the person who had it was allowed to talk whilst the rest of the group listened and waited their turn. The ethical issues regarding confidentiality were discussed before the focus group interview commenced and a verbal contract was concluded between all the participants present at the focus group interview.

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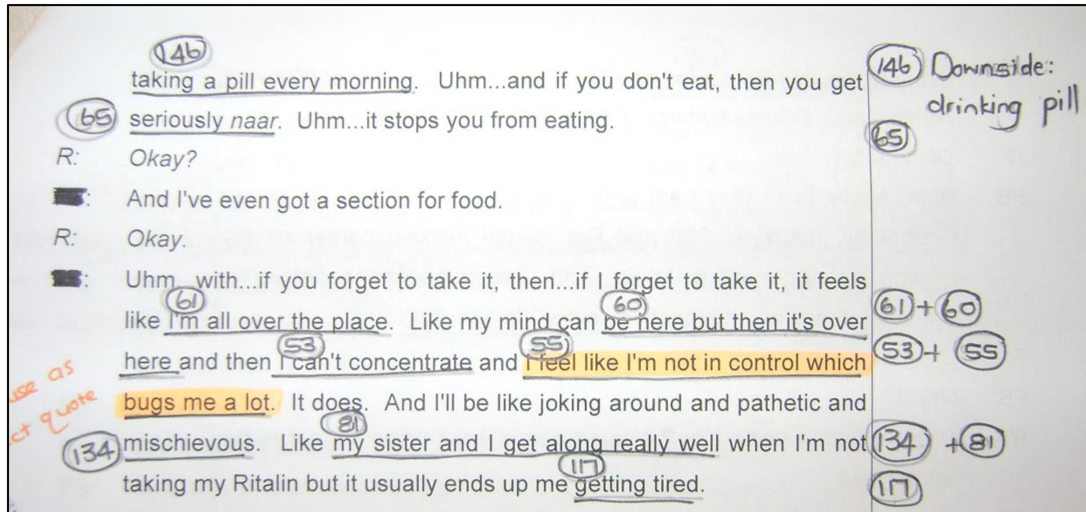
3.6 DATA ANALYSIS

Once all the data was gathered through the interviews, and the recordings were transcribed, it had to be analysed. Qualitative data refers to information that is difficult to measure and is usually gained through words or observation (Merriam, 1998). The data consists of information whereas the analysis entails the process of making meaning of this information. When working with qualitative data one's aim should be to have ideas emerging from your data (Richards, 2009). The method of *coding* was used to analyse the information gained from the interviews (see also 1.5). Coding is a term that refers to the method used to reduce data but still retaining the essence of the information in order to form concepts that will later form part of the findings of the study (Richards, 2009). A code can consist of a word or a short phrase which holds a summative description of a segment of the data (Saldaña, 2009).

The manner in which coding is done depends on the perception and interpretation of the researcher (Saldaña, 2009). There exist three styles of coding which can be used simultaneously by the researcher or only one or two can be used, depending on the researcher's interpretation (Richards, 2009). *Descriptive coding* refers to documenting the opinions of the participants of a study whilst *Values coding* refers to the documentation of the subjective perspectives of the participants (Saldaña, 2009). Due to the nature of this study I decided to make use of *In Vivo coding* which requires that the code is embedded within the participants' own words (Saldaña, 2009). As one of the aims of this study was to make the participants' voices heard and to understand their perceptions and experiences of ADHD, it was important for me that ideas emerged by using their words and descriptions and thus *In Vivo coding* was considered appropriate.


taking a pill every morning. Uhm...and if you don't eat, then you get seriously *naar*. Uhm...it stops you from eating.

R: *Okay?*

: And I've even got a section for food.

R: *Okay.*

: Uhm, with...if you forget to take it, then...if I forget to take it, it feels like I'm all over the place. Like my mind can be here but then it's over here and then I can't concentrate and I feel like I'm not in control which bugs me a lot. It does. And I'll be like joking around and pathetic and mischievous. Like my sister and I get along really well when I'm not taking my Ritalin but it usually ends up me getting tired.

Image 3.1: *Example of In Vivo coding whilst analysing the data from this study.*

Once the mechanical process of identifying information in the data has occurred (coding), one then has to interpret the codes through analysis to create constructs or concepts (Merriam, 1998). It is then these concepts which contribute meaning to the research question and provides information to contribute to theory development. The various codes that emerge from the data are then organised into groups or categories and from there the categories are organised into more general and abstract concepts (Saldaña, 2009). The codes, categories and concepts that emerged in this study will be discussed in more detail in Chapter 4. The step-by-step process of the coding, categorising and conceptualising was captured and is presented in Addendum M.

3.7 ESTABLISHING QUALITY ASSURANCE

A researcher follows various steps from choosing a research question to deciding on an appropriate research design, selecting a sample, collecting data and analysis. The ways these steps are followed ensure the accuracy and quality of the conclusions (Kumar, 2011). It is thus pivotal that certain criteria are put in place to ensure that the information that is gathered to answer the research question is of good quality, appropriate and trustworthy. Validity is one of the most important criteria in a research study and refers to the ability to find consistency in the findings when it is used repeatedly (Kumar, 2011). Due to the subjective nature of qualitative research it becomes difficult to ensure validity

and consistency and I am aware of the extensive critical debates regarding the use of alternative criteria to ensure validity (Denzin & Lincoln, 2011; Henning et al., 2004). Thus Guba and Lincoln (as cited in Trochim, 2000) propose four different criteria that can better reflect the accuracy of qualitative research, i) credibility, ii) transferability, iii) dependability and iv) confirmability.

3.7.1 Credibility

According to Trochim (2000) "…credibility criteria involve establishing that the results of qualitative research are credible or believable from the perspective of the participant in the research." (p. 225). This implies that the topic or phenomenon being researched is explained from the participant's own experiences and who is ultimately the only one who can judge the credibility of the results. By using the reality boxes, and their contents, they held a personal meaning to each participant which allowed them to tell their own experiences. This allowed the participants to be central to the interpretation of the information and thus made it more factual (Mitchell, 2008). This study specifically focused on the experiences of the participants and relied on the information that they shared based on their lived experiences. Seeing that the reality boxes allowed the participants to choose what they wanted to share and thus ensured that the information shared by each one was credible. A trial of evidence was collected and recorded (see Addendum M) to ensure validity.

3.7.2 Transferability

Transferability can also be described as generalising where the results from the study can be transferred or generalised to other contexts (Trochim, 2000). This is difficult to do in qualitative research but is possible if the research context and assumptions central to the research is described in great detail (Kumar, 2011; Trochim, 2000). Due to the qualitative nature of this study, the findings can be transferred from case to case and it was therefore necessary that a clear description of the context as well as the participants were provided. Purposive sampling with specific selection criteria was used

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to ensure that a selected representative sample of the population took part in this study. By doing so one ensures that the data that is obtained provides a rich and in-depth description of the phenomena being studied which can contribute to the transferability.

3.7.3 Dependability

The concept of dependability can be compared to the criteria of reliability in quantitative research which is based on the assumptions that "we would obtain the same results if we could observe the same thing twice" (Trochim, 2000, p. 226). Again this is practically not possible as in the social context where human beings are concerned one will never be able to create the exact context twice. Thus to ensure dependability in this study I had to ensure that close record was kept of all information gathered and the context was described in detail. I provided a trail of evidence in the text which outlines the details of procedures that were followed during the data analysis. Throughout the text continuous reference is made to raw data and evidence in the Addendums.

3.7.4 Confirmability

Trochim (2000) refers to confirmability as the degree to which the results of the study can be confirmed or validated by others. This was done by me documenting all the information that was gathered during the individual interviews and then confirming it during the focus group interview. See Addendum M as an example of this process.

3.8 CONCLUSION

The intention of this study was to allow adolescent girls the opportunity to voice their experiences of how ADHD affects different areas in their lives. With this intention as backdrop to the research design, it was important that I chose techniques to make this possible and at the same time to ensure that their 'voices' were valid and meaningful. Individual interviews were conducted with each participant to obtain their personal experiences and to allow them to describe their unique perception of this phenomenon.

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Reality boxes were utilised to encourage conversation and to keep the interviews interesting to the participants. A focus group interview was conducted as verification to ensure credibility, transferability, dependability and confirmability. It further served as a therapeutic exercise for all the participants and confirmed the findings/arguments of the study. Theron et al. (2011) state that interviewing, either individually or in the focus group, is not only a method of data collection but that the interaction also contributes to a therapeutic experience.

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CHAPTER 4
RESEARCH FINDINGS

4.1 INTRODUCTION

Chapter 3 described the process of data collection and analysis. This chapter will present the data as it was collected during the study. The major topics and themes that were identified during the analysis will be presented.

4.2 TOPICS THAT EMERGED FROM THE DATA TO ANSWER THE RESEARCH QUESTION

The following major topics were identified from the raw data:

- Explaining the ADHD symptoms.
- ADHD in school.
- ADHD in relationships.
- Coping strategies for ADHD.
- Influence of medication on experience of ADHD.
- People without ADHD.

4.3 RESEARCH FINDINGS

4.3.1 Topic 1: Explaining ADHD symptoms

Participants were asked to describe their firsthand experience of their ADHD symptoms and how it affects them in their daily functioning. The subthemes that emerged in this topic were a) What is ADHD?, b) Manifestation of primary symptoms and c) Emotional symptoms (see *Figure 4.1*).

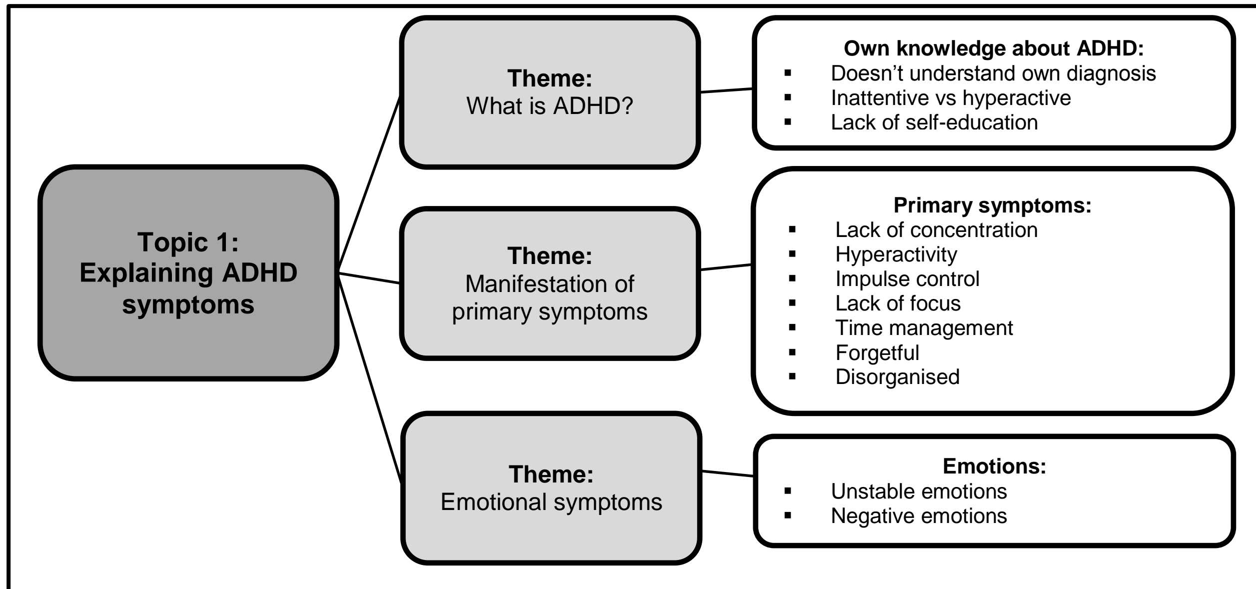

Figure 4.1: *Topic 1*

a) *What is ADHD?* Participants voiced that no one has ever really explained to them what ADHD really is and that, seeing that they were younger when diagnosed, they were only told that they have it without anyone explaining it to them ([2]P2_1:231-232; P3_1:154-155; P7_1:237). The participants stated that they are aware of the symptoms of ADHD, but that they lack the knowledge regarding the cause(s) of it or the physiological explanation for this disorder (P4_1:312; P2_4:393; P7_1:362). Upon asking the participants to explain their experience of their own symptoms, most of them responded by saying that it is very difficult to do so as they do not know what it is like to not have ADHD (P1_2:777; P2_2:670; P5_1:579; P6_1:9; P7_1:296). Their explanation was that they were born with it and thus for them it is considered 'normal'. Some of the participants stated that although these symptoms are noticeable to 'normal' people, they themselves are not aware of it until someone points it out. Despite them finding it difficult to explain what ADHD exactly is, they were very aware of the difference between the inattentive and hyperactive type (P1_1:843; P4_1:339; P5_1:236; [3]FG:671&1170-1171). During the interviews the

[2] P2_1:231-232 refers to Participant 2 (Carmen as indicated in Table 3.1)_Interview 1: lines 231-232
[3] FG refers to Focus Group Interview: line 671

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participants were quick to indicate whether they were inattentive or hyperactive and the hyperactive type was described as not being able to sit still.

b) *Manifestation of primary symptoms*. Participants reported that they experience having a short attention span (P2_1:289-299; P3_1:185; FG:339-341) and that they struggle to focus on only one thing at a time: "…*you can't completely concentrate on one thing…you (researcher) are like this small and everything behind you is all very fascinating*." (P1_1:553). *Image 4.1* depicts one of the participants' experience of ADHD as too many things to focus on at once. Anri and Elana described the lack of focus as having information going in through one ear and out the other without paying any attention (P1_2: 231; P4_1:148). Faith and Lize described the inattentive experience as being in one's own world, feeling calm and almost being lethargic (P5_1:564; P7_1:239). Other participants explained their hyperactive symptoms as having too much energy and often being described by others as a 'busy' child (P4_1:417; P5_1:404). Faith described it as "…*bouncing off the walls…you know the Tasmanian Devil? I get like that.*" (P5_4:173-174). Kayla described her experience of having ADHD as:

> "*You know how people say you should just put a lid on your ADHD sometimes? Well my lid got lost or rolled under the bed a long time ago…ADHD is like a brainstorm on its own. There's not a storm going on in here (pointing at her head), there's a freaking cyclone!*" (FG:665-666&1007-1008).

Some participants reported that they have higher levels of energy than people without ADHD which enables them to take on more things and be active for longer (P2_1:280; P3_1:260; P5_4:13). Statements were also made that it feels like being all over the place at the same time and one's behavior sometimes gets out of control. Two participants described having ADHD as feeling like one is on a prolonged sugar rush and then having a sudden crash that leaves one tired and sad (P1_1:575-578; P5_1:557). They further described it as that 'low' being temporary before the next rush comes.

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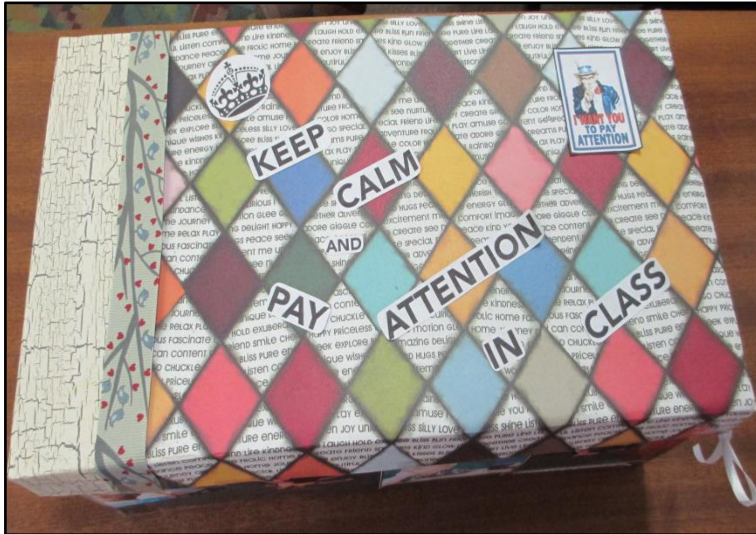

Image 4.1: *Reality box of a participant explaining her experience of her ADHD symptoms as "...you learn but colour code it or there are other things that you also think of that, like these blocks, cover the other stuff. But it's still there…"* (P1_1:70-73).

Participants identified a lack of impulse control as another symptom that manifests on an almost permanent basis. The participants voiced that they talk excessively (P1_1:425; P3_4:154; P4_1:196). Two participants' conversation during the focus group discussion (FG:417-419):

Kayla: If somebody dared you not to talk in class, I'll be like...
Faith: You're gonna wait a long time.
Kayla: I might as well hand over the money now, because it's never gonna happen.

All the adolescent girls, across the study, reported that the lack of impulse control mainly manifests in them having an urge to say or blurt something out that is inappropriate at the time or for the company they keep. One participant said: "…*I am very cautious when it comes to speaking because it usually gets me into trouble*." (P5_4:297-298) whilst another responded: "*…I think I should shut up now but your body says carry on…*" (FG:107-108). They described this noticeable behavior as having the impulse to say something without thinking it through or considering the

consequences. Acting on impulse often results in them interrupting conversations which can be annoying to others (P3_1:327; FG:644). Faith indicated that the lack of impulse control can sometimes manifest in her experiencing an impulsive idea and then to, without thinking, instigate things which can cause her to get up to mischief and in trouble (P5_1:518).

Time management and procrastination were two other major symptoms that the participants reported struggling with (P2_2:441; P3_4:99; P4_2:275; P5_2:127; FG:427&429). All of them had a watch in their reality boxes which represented their difficulty with managing their time (FG:436 & 574). An example of one of the participants' watches, which represents time management, is presented in *Image 4.2*. One participant described herself as "*…lastminute.com…*" (FG:965). Other participants reported that due to their lack of concentration they tend to lose track of time and can waste hours not being productive (P2_1:296; P3_2:300; P4_2:286; P5_4:98; FG:431). Further statements from the participants indicated that they are very forgetful and tend to lose things (P1_1:361; P3_1:211; P4_4:86; P7_4:31).

Image 4.2: *Reality box of a participant representing her experience of a lack of time management* (Anri).

Participants voiced that they can be very disorganised which affects their relationships, especially with parents, and also affects their academic performance

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(P4_1:573-575; FG:305). Faith described it as "…organised chaos…" (P5_4:105-106). Some of them reported that they tend to do things out of order due to their concentration jumping between so many things. Being disorganised does not only affect them in their actions but some participants also described it as disorganised thoughts resulting in them going off topic very easily (P1_1:623; P2_1:293; FG:245). Some of the participants did admit, however, that being organised is not completely impossible. They reported that it is possible for them to be organised if they want to be or if it is really necessary: "…I can be organised but it doesn't last very long…" (FG:282-283).

c) *Emotional symptoms.* Participants reported that they do sometimes struggle with regulating their emotions (P2_1:465; P4_4:149-150; P6_1:329; P7_1:304). Some of them did acknowledge that they are quick to react emotionally (P2_1:475; P7_1:208-209) and that they experience constant up and down emotions (P4_4:176; P6_1:411; P7_4:82-83; FG:1106). They voiced that this emotional instability is not on purpose but that they tend to experience this emotional reactivity. Some participants reported to get irritated or angry quickly (P2_1:419; P3_4:290; P4_1:443; P5_1:409). Carmen and Lize responded that they can go from being happy to being sad very quickly (P2_1:471; P7_4:91). Other reports were that they can be very difficult and stubborn and that they can be spiteful sometimes and tease others (P5_1:241; P7_1:48&228).

4.3.2 Topic 2: ADHD in school

After discussing the experience of the primary symptoms of ADHD and how it manifests in their daily functioning, the participants were asked how these symptoms affect them specifically in their schoolwork. The following themes emerged: a) Intensifying and waning factors, b) Effects of ADHD in school and c) ADHD as learning barrier (see *Figure 4.2*).

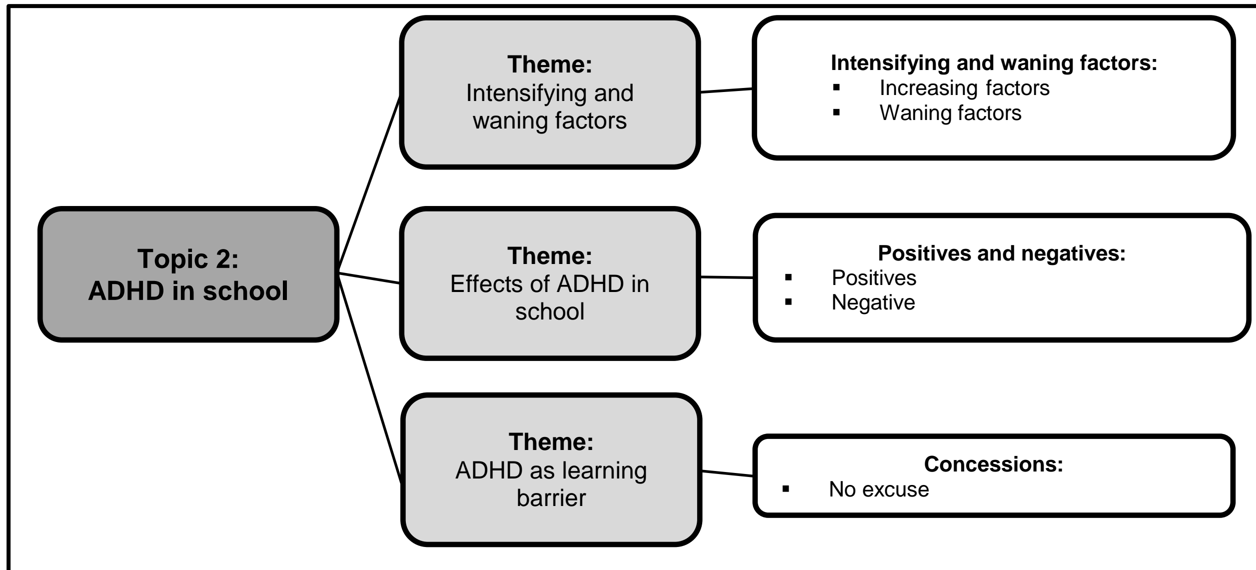

Figure 4.2: *Topic 2*

a) *Intensifying and waning factors:* Participants reported that there are certain factors in the school environment, as in their other environments as well, which can either intensify or decrease the manifestation of their ADHD symptoms (P3_2:145; P6_1:273). According to the participants having a short attention span and losing concentration quickly is a major problem and that this symptom is intensified when the teacher talks continuously without alternating between various class activities (P3_2:350; P4_2:194; P5_2:610; P7_2:153). *Images 4.3 and 4.4* represent one participant's experience of school. All of them mentioned that if they find the class boring it is very difficult to maintain attention for longer than half the lesson (P1_2:305; P2_2:238; P3_2:117; P4_2:187; P5_2:93; P7_2:83). Carmen, Ché and Faith reported further that the symptoms tend to be more intense when they do not like the subject or if the information which is being discussed is not interesting (P2_2:238; P3_2:361; P5_2:217). Anri, Elana and Lize mentioned that they struggle to concentrate in classes where they know they can study the content by themselves (P1_2:68; P4_2:48-49; P7_2:155).

Images 4.3 & 4.4: *Reality box of a participant representing her experience of ADHD symptoms in school* (Ché).

Participants did acknowledge that, contrary to the factors increasing the symptoms of ADHD, there are also factors which can diminish these symptoms resulting in them being able to concentrate for longer periods of time without the symptoms having too much of a negative effect. All of them acknowledged that it is very possible to focus and pay attention for longer if they consciously decide to do so and if they feel that they want to concentrate (P1_2:114-115; P2_2:142-143; P3_2:569; P4_2:91; P5_2:541). Some participants mentioned that the environment has a noticeable

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effect on their ability to concentrate (FG:903 & 907). For example Ché mentioned that if the people who sit around her are not talkative, she can concentrate and will also be less talkative herself (P3_2:332). The opposite is also true and they can talk nonstop if they are surrounded by friends or people who also talk a lot.

They voiced that it is much easier for them to keep up in class if they are actively involved in class discussions and activities and if the content is interesting and fun (P4_2:185-186; P5_2:574; P7_2:117-118). Two participants reported that they find it easier to focus on schoolwork when it is colourful and interesting (P3_2:99; P4_2:334-335; FG:567). Participants reported that they are able to concentrate, and not talk or allow their thoughts to wander, when they know the work which is being discussed is very important and that they need to understand the work, e.g. in Mathematics (P1_2:202-203; P3_2:418; P4_2:50-51; P7_2:169). They also admitted that, together with their tendency to procrastinate, most of them are pressure prompted and can pay attention for long periods of time when they are under pressure (P1_2:535; P5_2:749; P7_2:221).

b) *Effects of ADHD in school:* Participants reported that ADHD has its pros and cons. The advantage of this disorder, according to the participants, is that it contributes to them being creative (P1_3:95; P2_2:335; P3_2:132; P4_2:27). Participants voiced that ADHD, in their opinion, plays a large role in having the ability to be creative and innovative: "*…I think because my pills were worked out by that time, it helped with the creativity…my imagination goes wild and it's very cool…*" (P4_2:30-31&38). This ability was related to the experience of ADHD causing them to concentrate on so many things at the same time that many triggers in their environment cause them to create many ideas and thoughts simultaneously (P7_2:50). They described it as having too many ideas at one time and different thoughts being triggered simultaneously. They felt that this makes them good at brainstorming and coming up with new ideas. Due to their thoughts being 'all over the place', they reported that it helps them to think outside the box and also being innovative and creative. *Image 4.5* is an example of a participant's description of how she experiences her thoughts

and its contribution to being creative. It should be mentioned that I coincidentally noted that three of the seven participants took Graphic Design as a subject (Anri, Kayla and Lize), one had Music as a subject (Ché) but mentioned that she, together with the other three (Carmen, Elana and Faith), did arts and crafts or music as a hobby.

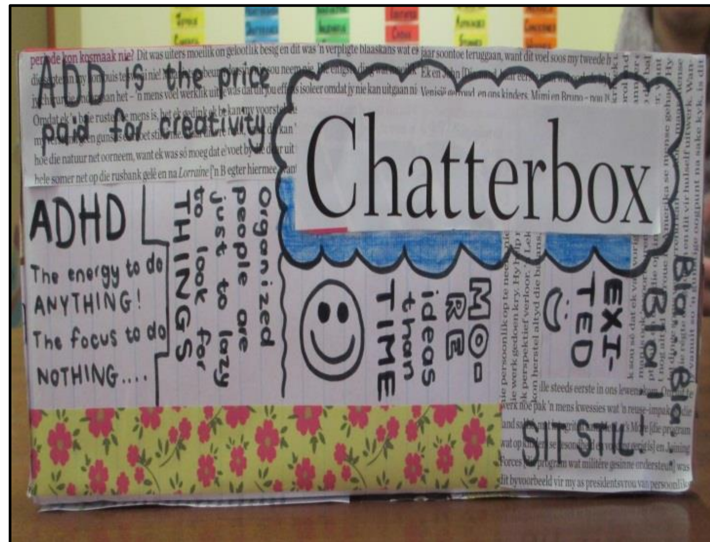

Image 4.5: *Reality box of a participant describing how her brain functions and contributes to her creativity* (Ché).

Upon asking the participants about their experience of school, they all reported that they enjoy high school (P1_2:4; P2_2:10; P3_2:7; P4_2:7; P5_2:31; P7_1:75). Most of them reported that they did not enjoy most of their primary school years due to their behavior making them 'different' and also being treated as such (P3_1:149-150; P4_2:16; P6_1:393; P7_1:42; FG:224). Faith said: "*I didn't want to go to school. I hated school so much…I was just refusing to go. I was sick, I pretended I was sick, I was just not having any of school*" (P5_1:285-288). Participants reported that between school, peer and family relationships, school is definitely affected most by their ADHD symptoms and that it is mostly negative (P2_2:72; FG:862). Lize reported that the primary symptoms of ADHD cause her to worry and stress a lot (P7_2:25). One of the participants mentioned that she suffers from anxiety due to her ADHD symptoms. The fact that the participants are aware of their symptoms and its

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consequences, causes them to worry as they know it will either get them into trouble or it will affect their school results (P2_2:306; P7_2:70).

A lack of time management in particular affects their school work as they have the tendency to procrastinate and leave everything for the last minute (P1_2:529; P3_4:123-125; P4_4:74-77). One participant mentioned that losing focus and wasting time causes her to always worry that she has missed very important work or that she will finish her work , a test or a project in time:

> *Like you can be quite 'worried' about things 'cause if you don't listen in class...oh no, that's this one. "Worrier". You can be like worried that you don't know the work and that you'll be in trouble if you don't do it and stuff.* (P2_2:273-276).

Elana reported that the effect of ADHD on schoolwork is that it prevents her from achieving according to her potential resulting in almost always achieving lower marks which is very discouraging (P4_2:262-263). They mentioned further that forcing themselves to concentrate, as discussed in the previous section, makes them very tired which contributes to the lack of focus (P3_2:644; P5_2:558; P7_2:126).

Another symptom that has a significant effect on them is the fact that they cannot focus for too long and that their thoughts tend to wander and they start to daydream (P2_2:399; P4_2:126; P7_2:16). To pay attention or concentrate for a long time in class is a major challenge (FG:349&424). According to the participants, the problem that they experience while trying to pay attention in class, results in them not listening to the teacher and thus falling behind with work or missing important information being discussed at the time (P1_2:417-418; P3_2:254; P4_2:11). This lack of concentration often results in them either taking too long or not being able to complete tasks (P1_2:480; P4_2:156). Carmen and Ché voiced that it is due to this reason that they often have to revise or study all the content again at home in order for them to catch up with work that they might have missed (P2_2:75; P3_2:250). Three participants voiced that they sometimes feel that, due to this reason, they have

to put in more effort than their peers who do not have ADHD to ensure that they keep up (P2_2:685; P4_2:253-254; FG:433). Ché said: "*…I often have to go and study everything again at home because I didn't pay attention in class…*" (P3_2:524-525). The lack of concentration also causes them to be negligent and to make unnecessary mistakes in their school work (P3_2:555). Most of the participants voiced that late afternoon is the time of day when it is hardest to concentrate as the medication is then starting to leave their system by that time and also because, as will be discussed later in the chapter, they become very tired towards the end of the day: *"…just after that if you have to keep quiet for too long, then I am so tired. I get so tired.*" (P1_2:159-160).

All the participants reported that their excessive talking and inability to keep quiet for long is the major cause for them getting into trouble with teachers (P1_2:71; P2_2:234). They reported that talking nonstop results in them getting into trouble almost daily and that the teachers do not understand that they do not talk on purpose but that it is due to a lack of impulse control (P1_2:443; P2_2:292; P3_2:186; P5_2:307). This causes them to often blurt something out or to talk non-stop in class which annoys the teachers and causes them to be punished. During the focus group interview all the participants agreed that they often receive writing out as punishment for excessive talking in class (FG:355, 366&391). (See *Image 4.6* below).

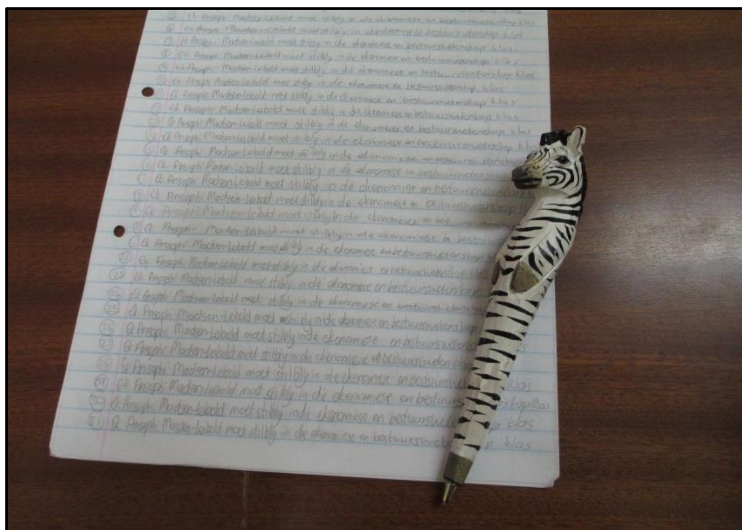

Image 4.6: *Participant's writing out work as punishment for talking in class* (Anri).

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Being forgetful and disorganised are two other symptoms which also affect them negatively (P3_2:153; FG:391). Participants reported that these symptoms lead them to often be confused with the time table resulting in them packing the wrong books or forgetting important school material (P2_2:249; P3_2:267; P7_2:73). Most of them indicated that they tend to forget important information which has an impact on their academic performance (FG:434 & 582-584).

c) *ADHD as learning barrier*: Regardless of the negative effects that ADHD has on their academic performance, the participants did voice that the disorder cannot be used as an excuse to not do well in their schoolwork: "*…I have ADHD, I could not do it. Because you can do anything if actually you put your mind to it.*" (P1_2:704-706). They were of the opinion that all people have some form of challenge and that it is not fair to use ADHD as an excuse. They felt that it is not fair towards their peers and that it is wrong to use it as an excuse especially because they know that it is possible to manage their symptoms and not allow it to interfere with their academics. It was Elana's views that although she takes medication, it is still up to her to make an effort with school (P4_4:24). She was of the opinion that, due to her knowing that ADHD influences her negatively in some ways, she cannot use it as an excuse but rather considered it as her motivation to work harder so that she can still achieve according to her potential (P4_1:468). Ché supported this statement by sharing that she makes a conscious effort to work harder in school due to her ADHD (P3_2:540).

Upon asking the participants what their opinions regarding time concessions were, they all reported that they did not see it as necessary (P1_2:392; P7_2:178). Carmen's response was: "*'Cause if they can do it in that amount of time, then I can probably do it.*" (P2_2:609-610). Participants felt that they did not want to receive 'special' treatment. Faith's opinion was: "*I don't want to get like special treatment because…then I'll be kind of like...I don't know cheating in a way.*" (P5_2:697-699). None of the seven participants had time concessions at the time the data was collected.

4.3.3 Topic 3: ADHD in relationships

As in the previous topic, participants were asked to discuss their experience of ADHD and how it influences their relationships with their peers/friends and family. The following themes were identified: a) Contributing factors to building relationships, b) Friends and c) Family (see *Figure 4.3*).

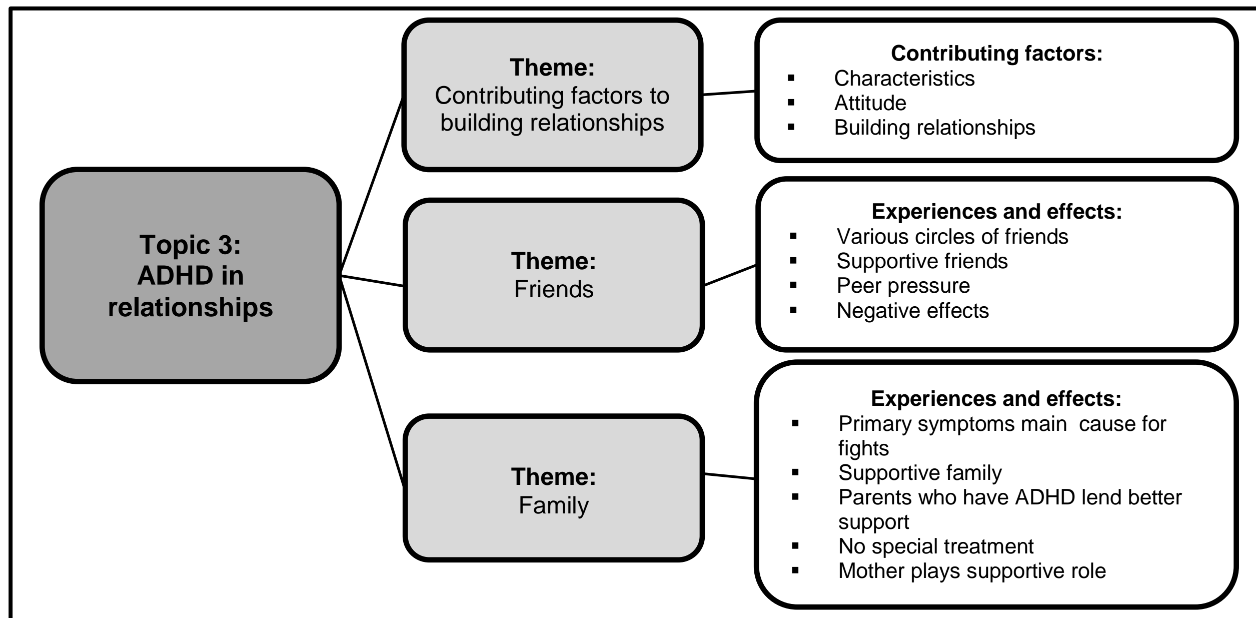

Figure 4.3: *Topic 3*

a) *Contributing factors to building relationships:* During the discussions with the various participants, most of them voiced that their experience is that some of the symptoms of ADHD contribute to their general social interaction with people. Some of the participants were of the opinion that the symptoms help them to be very social and that they enjoy spending time with people (P4_1:31-32; P5_1:587). Primary symptoms such as excessive talking and struggling to control impulses were considered as contributing factors. Participants felt that due to them talking a lot, it makes them more social and more confident to start conversations as they feel they always have something to talk about (P4_3:16-17). They further reported that the lack of impulse control makes them more spontaneous which helps in being social and confident. Participants described themselves as having a positive attitude

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towards life and not taking life too seriously (P1_3:326; P3_4: 269; P5_3:272-273). This attitude, together with their spontaneity, adds to them being adaptable and adjusting fairly easy during social interaction (P1_3:133; P3_4:299; P7_3:8). According to the participants these characteristics and attitudes often make it easier for them to meet people and build relationships.

b) *Friends:* Upon discussing the participants' friendships in particular, all of them reported that they did not have many friends in primary school and that they were bullied but that this has changed now that they are in high school (P1_1:149; P6_1:125-127; P7_1:54). They have good friends now in high school and they all claim that their friends play a very important role in their lives and that they make school enjoyable (P1_2:13; P2_2:4-5; P4_2:7-8; P7_2:29). The characteristics and attitudes that contribute to their social interaction (as discussed above) make them spontaneous. This results in them being friendly with most people and finding it relatively easy to start conversations with anyone. The participants voiced that this, together with their interest in others, lead them to being acquainted with a large number of people. Participants reported that due to the abovementioned reasons, they have friends in many different circles of friends. Becoming bored quickly and thus resulting in a loss of concentration makes them lose interest in conversations or in a particular group of friends for a while (P2_3:282; P4_3:95; P5_3:291; P7_3:65-67). This leads them to circulate between various circles of friends from time to time (P4_3:92; FG:1017-1018): "*I can't stay in the same group. Or the people in the group must change. Like I will talk here and go to like a different group…I get sort of bored with people who are there.*" (P1_3:115-118&120). Participants voiced that although it appears as if they do not have friends and that they roam between groups, they actually just have a 'change of scenery' and that they will always return to their close friendships.

During the interviews the participants mentioned that all of them only have a small group of friends whom they consider to be really close (P2_3:286; P4_3:106; P5_3:261; P7_3:55-56). They reported that these specific friends are aware of their

ADHD and that they are very supportive. According to the participants the primary symptoms of ADHD do affect their relationships but they feel that these close friends have accepted it and understand that the manifestation of the symptoms is not intentional (P1_3:86; P2_3:365; P4_3:159&161-162; P5_3:114-115; P7_3:124). Participants reported that instead of being judged by their close friends, their friends are one of their biggest support systems, especially at school (P5_3:136). One participant mentioned that her friends help her to remember things because they know that she is very forgetful. Other participants mentioned that their friends will point out when they notice negative behavior due to the ADHD, i.e. friends will refocus her attention when they see she is drifting off and losing focus or will tell her when she is talking too much and is annoying others (P2_3:29-30; P4_3:69; P5_3:445; FG:1060).

When asking the participants whether a lack of impulse control could be a reason for giving into peer pressure more easily, they responded that they do not give in easily and that it cannot be used as an excuse for unacceptable behavior (P1_3:420; P3_3:410). The participants reported that they are able to withstand peer pressure: *"…you can't use ADHD as an excuse… using a disorder or an excuse to cover up their mistakes. Which I think is absolutely ridiculous and stupid. You make a choice… it's up to you…"* (P5_1:851 & 857-860). They did admit that there are times that they will submit to peer pressure because that is also part of being a teenager, but they voiced that it will only be in situations where they have considered the consequences and they have consciously made the decision (P1_3:446; P2_3:414; P3_3:399; P5_3:377). Elana and Faith were of the opinion that giving into peer pressure is not a case of acting without thinking (impulsiveness) but that it is determined by the values taught by one's parents (P4_3:208; P5_1:875).

Although they have good, stable relationships with friends, the participants did report that they do experience that their ADHD symptoms sometimes put strain on their relationships (FG:825). Two participants reported that they have lost friendships due to the ADHD symptoms (P7_3:109; FG:299-300). Participants reported that the

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trouble they experience with their own emotional regulation sometimes results in them being moody which can irritate and confuse their friends (P2_3:323; P6_1:339-340; P7_3:154). One participant reported that her ADHD affects her negatively when her relationships are involved as she has a constant fear that her ADHD symptoms will cause her to lose her friendships (FG:299-300). Furthermore, participants reported that their friendships get affected due to their lack of concentration. It causes them to sometimes not listen when their friends are talking which makes the friends irritable and gives the impression that they are not interested in what their friends have to say (P1_3:180; P3_3:56; P4_3:38-39; P7_3:24-25).

Although their tendency to talk a lot can be a positive contribution to their relationships with others, the participants reported that too much talking can be negative. They reported that they often talk too much not allowing their friends to get a turn or that they tend to interrupt their friends while talking (P2_3:70; P4_3:176; FG:640). Another effect is that their excessive talking is often the reason for their friends to also get into trouble with teachers, as the participants keep their friends from their work or they talk when they are not allowed to (P4_3:8-9; P5_3:199-200). Participants reported that one of the major effects of their uncontrolled talking is that they tend to blurt out unnecessary, or even confidential, information (P4_3:148; FG:827). Elana said: "*…sometimes I am rather impulsive especially with the things that I say.*" (P4_3:192-193). Kayla responded: "*So if you have a secret I advise you not to tell me because at one point or another it will come out.*" (P6_1:385-386). Therefore their friends have stopped sharing private information with them in an attempt not to jeopardise the friendship. This of course also has its consequences as the participants sometimes feel that information is held from them.

c) *Family:* All the participants reported that they have a typical love/hate relationship with their parents and siblings (P1_4:263; P2_1:170; P3_4:399; P4_4:38; P6_1:106). They voiced that they were of the opinion that their relationships with their families are influenced by the typical teenager mood swings. However, just as with their friendships, the participants did report that their ADHD symptoms do affect their

family relationships despite teenage moods. Although their families accept them for who they are, as will be discussed later in the chapter, the primary symptoms of the disorder are reported to cause more upset in the house than having a positive effect. During the interviews the participants mentioned their challenge of regulating their emotions, which often causes them to act out or be moody (P2_4:248; P4_4:240; P7_4:80). This, together with their lack of impulse control and saying things in the spur of the moment, often cause fights with their parents and siblings (P3_4:438; P7_4:32). Elana shared that: "*…it was again impulsivity but the other night she (mother) was complaining…and it popped out and I said you know I could've been a drug addict. And then she flipped out on me…*" (P4_4:120-123).

It was further reported that their high energy levels and hyperactivity can cause them to be irritating and to annoy their family members, especially their siblings (P2_1:287; P3_4:187; P4_4:119; P5_4:345). Ché reported: "*He (father) gets very angry with me because I can't sit still and I am always busy with my legs or I fiddle with something*" (P3_4:94-95). Participants voiced that the lack of concentration and not paying attention often results in their parents being upset with them as they tend to not listen to their parents or follow through on instructions (P2_4:281; P4_4:66; P7_4:35). Participants added that together with failing to always pay attention, them being disorganised also causes fights in the house. They tend to be forgetful especially with regards to schoolwork and important information. This has had financial implications for their parents, which resulted in the parents being stressed and upset. (P1_4:338; P3_4:201; P4_4:79; P7_4:58).

The participants reported that, regardless of the effects of the symptoms in general, the effect it has on their schoolwork is the main cause for fights in the house (P2_4:267; P5_4:98; P7_4:97). Anri and Ché mentioned that their lack of time management and tendency to procrastinate often cause tension in the house because then their parents and siblings have to cope with the pressure of getting the work done on time (P1_4:29; P3_4:227). Ché reported further that these symptoms often create the impression with her parents that she does not take responsibility for

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her schoolwork and that she lacks planning strategies (P3_4:96-97). The participants voiced their dissatisfaction in this regard and admitted that although they are guilty of poor time management, it is not on purpose. All of them mentioned that their poor time management is a major cause for being late for appointments and often causing the family to be late in the morning as they struggle to wake up (P1_4:37; P2_4:144; P3_4:115). This also causes many fights in their houses.

Despite the tension that the primary symptoms cause in the house, the participants reported that they still feel that their family is one of their most important support systems in dealing with it (P4_4:278). They voiced that parents and siblings know them as someone with ADHD and that they have accepted the symptoms as they manifest (P1_4:241). They reported that their families have learnt to accommodate them and their behavior and that everyone in the house has learnt to deal with it. Participants admitted that once the tension or fights have passed, their family usually supports them by helping them to manage the effects of their symptoms, i.e. everyone will help to get projects done on time due to procrastination (P2_4:345; P3_4:232; P4_4:284; P5_4:336). The participants did voice though that their parents do not accept the symptoms of ADHD as an excuse and that they are not treated any differently from their siblings who are not diagnosed with the disorder (P1_4:448; P4_4:193; P7_4:109).

All the participants reported that they have family members who are also diagnosed with ADHD with any of the subtypes. Five of the participants reported that either their mother or father is diagnosed with the disorder as well (P1_4:7; P3_4:526; P4_4:92; P5_4:10; P6_1:74). Four participants reported that one or more of their siblings also have ADHD (P1_1:455; P3_4:530; P5_1:65; P6_1:73). Four participants reported that their extended family, i.e. grandparents, aunts or uncles, cousins etc. have been diagnosed with the disorder (P1_1:438; P3_4:140&621; P5_4:9; P7_4:14). Carmen and Lize reported that neither of their parents are diagnosed with ADHD (P2_4:193; P7_4:12). During the interviews the participants voiced that they feel that those family members who also have ADHD understand them better and know how to deal

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with them in a more acceptable and understanding manner (P5_4:95; P7_4:43). Those who have parents diagnosed with the disorder reported to feel more accepted and knowledgeable about their disorder than those participants whose parents do not have ADHD (P4_4:98).

Most of the participants mentioned that they have a close relationship with their mothers in particular. They reported that their mothers are very supportive and understanding of their symptoms even though it sometimes makes them upset and angry (P2_4:75; P4_4:217). Anri and Ché attribute this to their fathers being at work for the whole day and their mothers having to deal with the symptoms and effects of it in a more hands on, daily basis (P1_4:91; P3_4:371-373). It was reported that their mothers teach them how to identify and manage their symptoms in order for them to minimise the negative effects (P2_4:323; P3_4:523). Those participants in particular whose mothers are also diagnosed with ADHD reported to be more informed about the disorder, its effects and coping strategies than those whose mothers do not have ADHD (P5_4:159). "*…a lot of the stuff I know about ADHD is because my mom knows because she has done a lot of research on it…basically because she is ADHD…*" (P5_4:260-261). Lize, whose mother does not have ADHD, reported that her mother "*…struggles to figure me out. She does not always understand me…*" (P7_4:65-66).

4.3.4 Topic 4: Coping strategies for ADHD

The themes in this particular topic focus on coping strategies which the participants have learnt through their own experience with their ADHD. Furthermore, the themes that emerged within this topic provide suggestions from the participants themselves on how to cope with the effects of ADHD. The main themes that will be discussed are: a) Learn to manage ADHD, b) Coping with ADHD in general, c) Coping with ADHD in the school, d) Coping with ADHD in relationships and e) ADHD as part of the person (see *Figure 4.4*).

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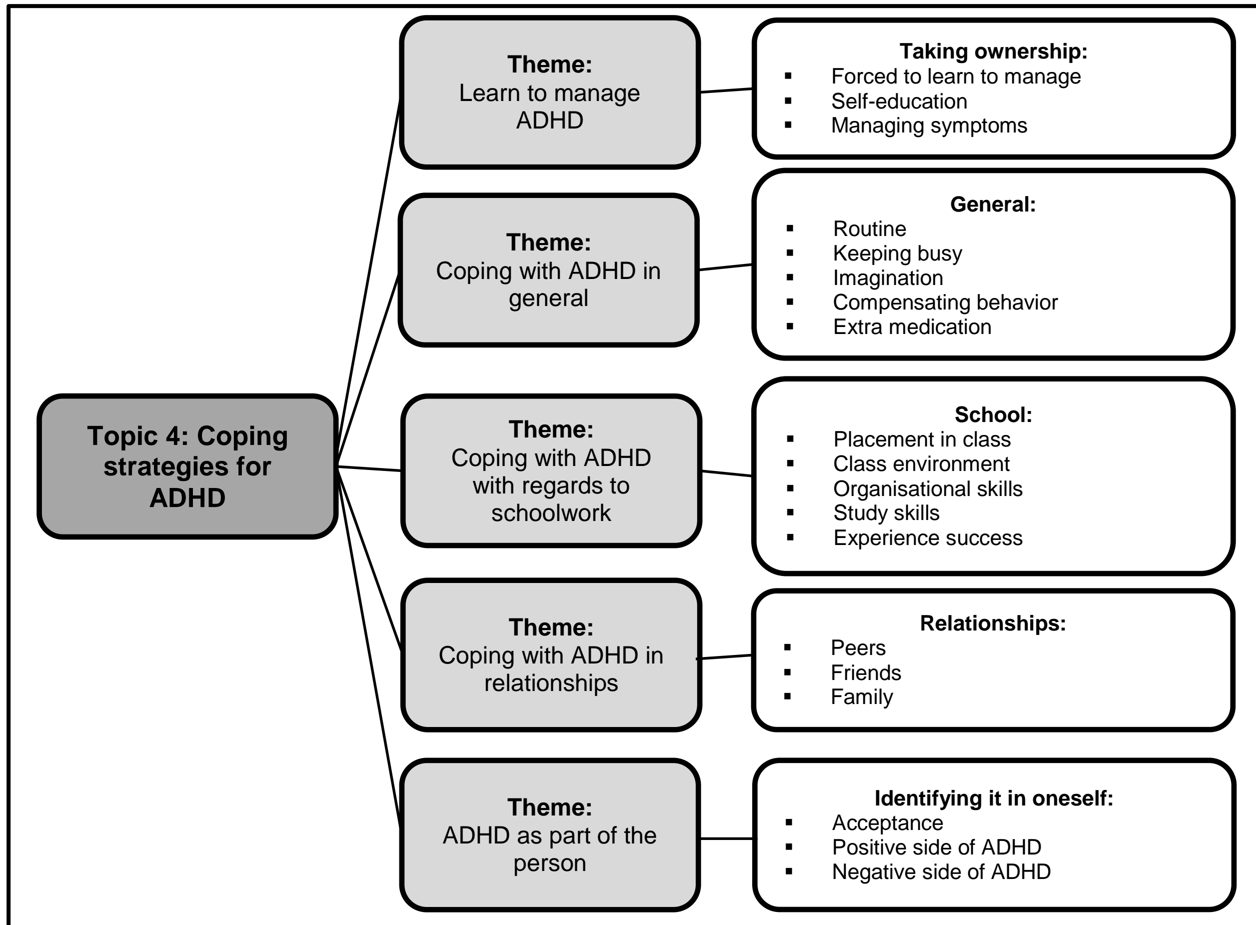

Figure 4.4: *Topic 4*

a) *Learn to manage ADHD.* Participants acknowledged that they realise that the social and academic demands are increasing as they get older. Some of the participants stated that they are being forced to learn to manage their ADHD due to increased responsibilities and the realisation that they will have to cope in the real world out there one day. (P1_2:393; P3_2:296; P5_4:127). Anri said: "*…the world out there does not wait for people…*" (P1_4:436). According to the participants one of the most important strategies to cope with ADHD is self-education. To know one's own symptoms, what intensifies it and how to control it is very important. Ché stated that in order to be able to manage ADHD, she had to become more aware of her own behavior and she constantly has to make a conscious effort to manage it (P3_1:225-227). According to some of the participants it is possible to learn to manage one's own symptoms, control impulses and regulate emotions.

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b) *Coping with ADHD in general*. Statements from the participants indicated that, although they do not enjoy too strict structure and routine, they realise that it is necessary to enable them to cope with their ADHD (P1_4:475; P4_4:223). According to the participants it is important to keep busy and occupied in order to cope with the symptoms of ADHD. Suggestions such as being actively busy make it easier to focus and to not become bored too quickly (P2_4:60; P3_4:178; P7_2:152). Some of the participants who are diagnosed with the hyperactive and/or combined type indicated that physical exercise plays a pivotal role in releasing the excess energy and that being active makes them feel free (P2_1:103; P4_1:440; P5_1:408). To be able to cope with the forgetfulness that manifests in people with ADHD, some participants indicated a strategy that works for them is to imagine or picture the object or scenario that needs to be remembered (P1_2:625; P4_3:309). According to them it helps to remember important things if they can see it in the form of a picture. Most of the participants find it helps to write notes on their hands or in their diary in order for them to remember things of importance (P1_2:86-87; P2_2:543; P4_2:329-331; P5_2:775).

Statements shared by the participants indicated that most of them have taught themselves compensating behavior that helps them to cope with their symptoms: "*…when I feel that I'm starting to daydream, I always have an elastic band and then I will just snap myself quickly and then I will come back to reality…*" (P4_2:321-322). Faith mentioned how she physically puts her hands on her mouth to stop her from talking out of place (P5_3:342-343). Due to the participants' ability to identify when their medication has left their system or that the symptoms are having a negative impact on them, most participants indicated that they always have an extra pill with them (FG:489-490 & 497). This is especially for them to cope with school work.

c) *Coping with ADHD with regards to schoolwork.* Participants are of the opinion that where they are placed in the class will have an effect on how ADHD influences the learning experience. According to Elana it is best to be placed in front of the class as there would be too many distractions in front of her if she was sitting in the back of

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the class (P4_2:365). Although sitting in front of the class means least distractions and best ability to concentrate, Anri admitted that being a teenager it is not nice to sit right in front of the class as it is too close to the teacher (P1_2:669). Therefore they suggest that the best place to be seated is in the middle of the class and that it does not matter if the placement is next to a window or not as it does not matter where one sits, you can find something to distract you (P2_2:815; P3_2:329: P5_2:361; P7_2:134).

With regards to the classroom environment, participants shared that they find it easier to concentrate in a class that is not too strict or structured. A teaching environment that allows occasional talking and being able to move around (stand, walk around etc.) makes it easier to concentrate in. A too strict environment requires more effort to control the symptoms leading to focusing more on the symptoms than the teaching (P1_2:172). And on the other hand a teaching environment with no structure also makes it difficult to control themselves. According to the participants it is easier to focus and execute instructions if they are given in a clear and short manner (P1_3:190). It is also helpful if the teacher quickly refers back to the work covered in the previous lesson. This makes it easier for the participants to orientate themselves and pay attention.

The participants' forgetfulness and organisational skills are some of the major symptoms of ADHD that have a negative effect on their school experience: "…*At school I often wonder why do I have ADHD? But everywhere else I think it is so cool!...*" (FG:903-904). Therefore they had to teach themselves strategies to be able to remember important things. Carmen had to teach herself the habit of writing down notes in a diary or day planner and to have folders with markers that help her to organise her school work (P2_2:267). Some of the participants have taught themselves the habit to pack the books they will need for school the night before to ensure that they do not forget any important books and that all the necessary homework is done (P1_4:509-510; P2_2:210). It also helps them to not be late in the mornings, another effect of disorganisation due to ADHD.

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As studying is one of the least enjoyable things to do for adolescents, especially those with ADHD, the information shared by the participants indicated that they find it easier to concentrate on their school work if there are few distractions in the environment and if the work is color-coded and fun to study (P4_4:307). Ché and Elana indicated that using different colours, pictures and mind maps makes it easier to focus and concentrate (P3_2:76-77; P4_2:345-355). "*I take my textbooks sometimes and I'll take Prestik and stick a sweetie after every paragraph or two. So I read it and then get a sweetie. It's the best way of studying*" (P5_2:824). She also mentioned that audio learning does not work for her (P5_1:386). According to the participants their secret to being successful in their school work, regardless of ADHD, is to work constantly and to make your subjects fun and interesting for yourself (P3_2:630; FG:1032).

d) *Coping with ADHD in relationships*. Statements from all the participants indicated that the ADHD symptoms do affect their relationships with others. Carmen and Kayla's experiences with peers have taught them to be assertive and to develop confidence to stand up for themselves regardless of the behavior they show due to the symptoms of ADHD (P2_3:257-258; P6_1:267). One of the participants mentioned that it helps to have a friend who is organised. This way she will have someone who reminds her about important school work or occasions. Another participant mentioned that she has learnt to restrain herself when she has the impulse to say something which she knows is not acceptable or will offend some one. Carmen described it as:

> *…you have this urge that you have to tell them, you have to tell them…then you just end up telling them and it's just like "Don't think that was appropriate for that timing!" Then you realise what you've said, after you've done it...* (P2_1:441-445).

In terms of family, the participants' descriptions of them coping with ADHD is that it is helpful if there is a family member, i.e. mother or father, who can remind them about tasks that must be completed or to oversee study sessions. The participants have

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also indicated that, although their family members understand their symptoms, they do not receive, and do not want, any special treatment and that ADHD cannot be used as an excuse for not fulfilling her responsibilities in the household (P4_4:193; P7_4:109). Clear communication and structure are important in the house and contribute to the participants being able to manage their ADHD and the effects of it better (P1_4:15).

e) *ADHD as part of the person.* Some of the participants stated that ADHD has positive as well as negative aspects (P2_1:282: P5_1:346). All of them indicated that they have accepted ADHD as part of them and that they consider it as being 'normal' (P4_1:366; P5_1:578-579). The participants stated that they consider ADHD as part of their personality and that it is not their fault that they were born with it. They are of the opinion that one just has to learn to deal with the symptoms. Elana mentioned that she is just like any other person with issues, hers just happens to be ADHD (P4_1:374). In addition to this, the participants reported further that the positive side of ADHD is that it makes them special and unique (P1_2:26; P5_1:667-678; P7_1:324, FG:1089-1090) and "*…this is like my life. It's like a sort of gift, it's not something bad. It's like pretty*." (P1_1:786-787). That it makes them different in a positive manner and that ADHD is in many ways a strength: "*It's kind of like a superpower*" (P5_2:903; FG:880-881). According to Carmen and Ché these positive attitudes have helped them to accept and cope with their disorder (P2_2:391-392; P3_1:12).

Two participants did mention that even though they think ADHD makes them special, the negative side of the disorder is being aware of the effects and what impact it has on their functioning: "*…I'm happy with who I am, I've accepted it even though it annoys the flip out of me sometimes.*" (FG:985-986). Participants voiced that being aware of effects of ADHD is especially irritating when they know that they have the ability to achieve better academically but that the lack of concentration prevents them from achieving it:

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> *…apparently I can do any subject I want but because of the ADHD, it bashes me down. It's like I try to concentrate and the then ADHD is like a big mallet and goes wha! It's telling me to shut up, talking is more interesting. Look, look at the desk. The texture is so amazing. Read all the notes that people have written on it.* (FG:814-817)

One participant mentioned that due to her awareness of the symptoms, and how it affects her relationships, she spends a lot of energy trying to accommodate her friends and family (FG:1040).

4.3.5 Topic 5: Influence of medication on experience of ADHD

The main themes that arose within this topic represent the participants' experiences with regards to the medication they use to treat their ADHD and how it affects their experience of this disorder. Four major themes emerged: a) Physical and emotional side effects of medication, b) Experience of ADHD while medicated, c) Experience of ADHD while not medicated and d) Questioning own identity (see *Figure 4.5*).

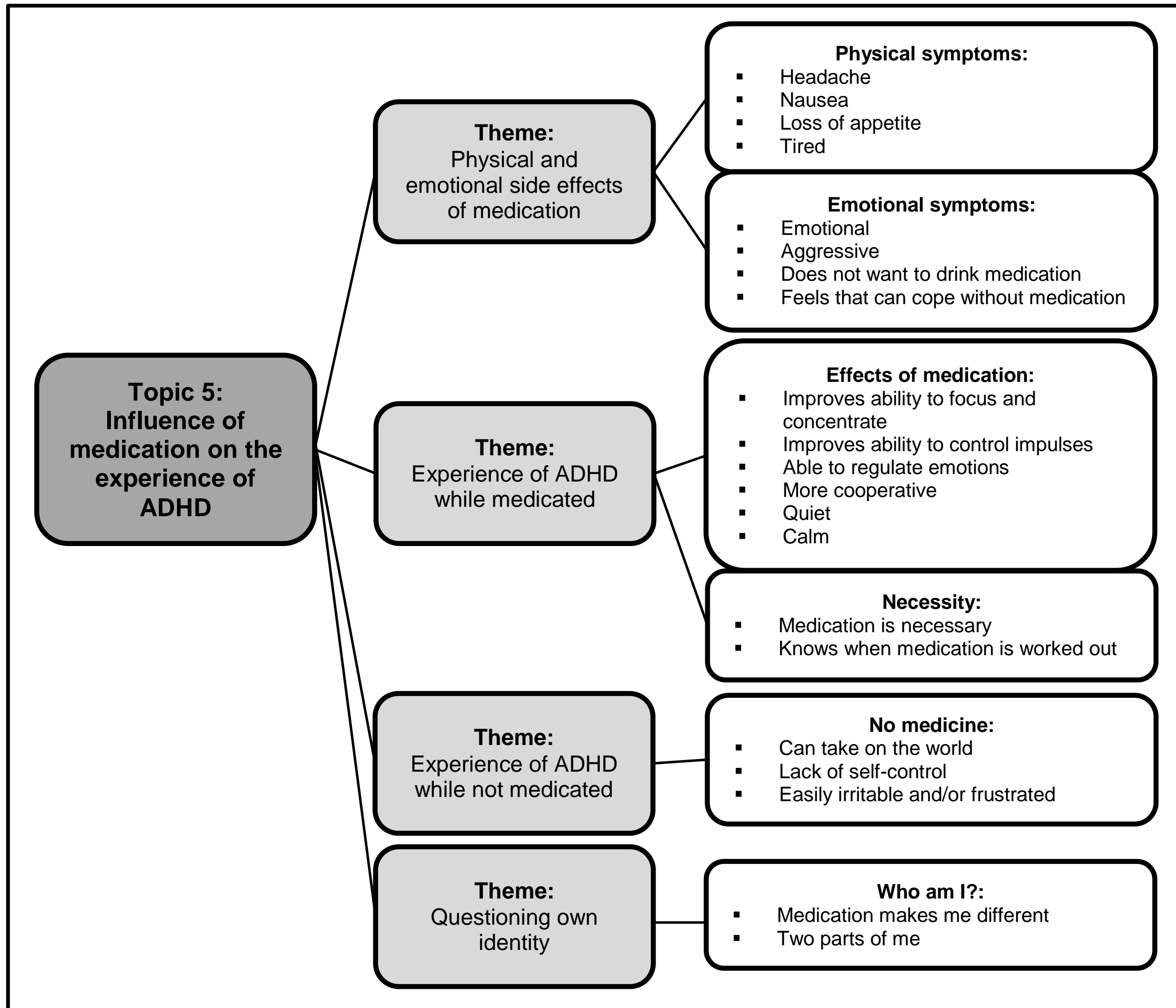

Figure 4.5: *Topic 5*

a) *Physical and emotional side effects of medication*. Statements from the participants indicated that their experience of ADHD is influenced by the physical and emotional effects that the medication has on them. Six out of the seven participants are still administering medication daily. Side effects such as headache, nausea, loss of appetite, weight loss as well as tiredness were mentioned (P1_1:686; P2_1:307; P5_1:602; P6_1:305; FG:526). The participants reported that they often experience intense headache, especially at the end of the day once the medication is out of their system. They also reported that they are very tired especially late afternoon and in the evening once the medication is out of their system (P2_1:310; P4_1:401).

Upon discussion of the various types of medication and how it affects one emotionally, it came to light that each individual responds differently to the different types of medication. Some participants mentioned that, while on a certain type of medication, they become very aggressive and irritable whilst others reported to be very emotional and even depressed (P2_1:621; P4_4:167; P7_1:338; FG:526-527). They mentioned that, due to the physical and emotional side effects of the medication, they do not always want to drink the medication and by having to drink the pill every morning it is a constant reminder of the ADHD (P1_1:461; P2_1:239-240; P3_2:160; P5_1:359; FG:478). Some participants included their medication in their reality box (see *Images 4.7 & 4.8*). Four of the seven participants mentioned that they went through a phase, between Grades 6 and 8, that the medication and the side effects were becoming too much to handle (P3_1:235; P4_1:202; FG:886). The participants reported that all of them stopped drinking the medication at some stage during this time period with the aim to see whether they could cope without the medication. Six of the seven participants have started taking their medication again. Elana explained:

> "*…through a phase where I thought I did not need to drink it and that I did not need it, so I did all necessary things to not drink it…lied and threw the stuff down the drain until my mom found out…*" (P4_4:27-30).

Image 4.7 & 4.8: *Participants' medication that serves as a reminder to them of their ADHD* (Elana & Ché).

b) *Experience of ADHD while medicated.* Participants were asked to describe how it feels when they are on medication and how their experience of ADHD differs from when they are not on medication: "…*the difference between me on it and the difference between me off of it...is so big*." (FG:499-500). According to all the participants they are able to concentrate for longer at a specific time and it is easier for them to prioritise and focus when on their medication. Although they still experience impulses, they experience that the medication helps to control these impulses: *"…you can have a conversation with me without me interrupting…*" (P4_4:105-106). They did acknowledge that the medication does help to control these urges (P2_1:488; P4_1:514). It was further mentioned that the medication enables the participants to regulate their emotions better and to not react too quickly (P4_4:239-240; P7_1:337-338). The participants who are diagnosed with the inattentive type mentioned that they can appear quiet, or even quieter than usual (P3_1:235; P4_2:77; P7_2:79; FG:464), when on medication whilst one participant, diagnosed with hyperactivity, described herself as being calmer and more cooperative when medicated (P5_4:230).

As mentioned previously some of the participants underwent a phase at the end of their primary school career where they chose to not take their medication. Statements from both Ché and Elana reflected that they realised that, although it is inconvenient to drink a pill every morning, the medication is beneficial and necessary especially for academic purposes (P3_2:163; P4_1:212). Faith reported that she can physically feel when her medication is out of her system: "*…when my dose gets a little bit not right for my body I start talking, getting in trouble again…I'm falling back with work I tell my mom I need a top up…*" (P5_2:233-234&329).

c) *Experience of ADHD while not medicated.* As the participants were able to describe their experience of ADHD while medicated, they also reported on their experience when not on medication. Most of the participants mentioned that ADHD makes them feel that they have energy and courage to take on anything that comes their way:

…everything looks shiny and interesting to you and as if it is the best thing in the world…if you are not on your medication, then you are like "Come at me bro!"...you can run around the field ten times and around the house and stuff. (P4_1:244-245 & 252-253).

They also mentioned that they have difficulty controlling themselves: "*Lack of self-control basically and all over the place…*" (P5_4:156), especially impulses and urges, and this makes it more difficult to regulate their emotions. This results in most of them being more irritable and becoming frustrated more easily when not on medication (P5_1:411; P7_1:333-334).

d) *Questioning own identity*. Even though the participants indicated that they accept and embrace their ADHD, some of them indicated that, by drinking the medication, it does make them feel different and they describe it as if there are two personalities in one. The one acting in a certain way (when medicated) and the other part acting in another way (when not medicated). This contradicting feeling has lead to some of the participants questioning their own identity and who they really are. Is it the person on medication or off?: "*…I don't know who 'myself' is. Is it the person with the…or is it the person without it?*" (P5_1:533-534). Ché mentioned that it was for this specific reason that she does not want to take her medication any more but that she also realises that it is necessary for her to cope with schoolwork (P3_2:163).

4.3.6 Topic 6: People without ADHD

The themes that emerged in this topic describe how the participants experience the opinions of people who are not diagnosed with ADHD. It also includes how these people (general public, teachers and peers) have acted towards them. The themes under this topic include: a) Lack of knowledge b) People perceive adolescent girls as…, c) Negative experiences and d) Teachers in particular (see *Figure 4.6*).

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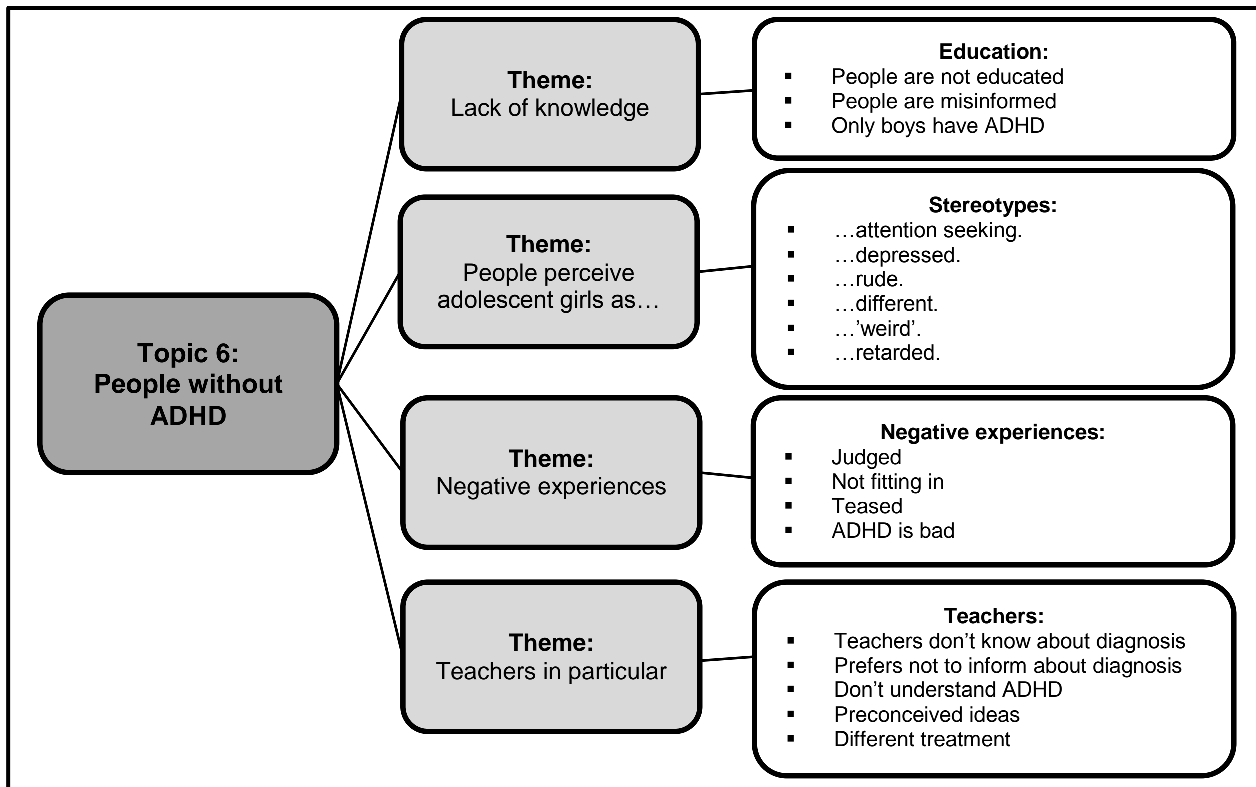

Figure 4.6: *Topic 6*

a) *Lack of knowledge.* Discussions with the participants identified three subthemes, i.e. i) People are not educated, ii) people are misinformed and iii) people do not know what ADHD feels like. Some of the participants mentioned that they find that the general public does not really know what ADHD is and what the characteristics of this disorder are (see *Images 4.9 & 4.10*). They stated that people, who claim they know what ADHD is, are misinformed and have a stereotypical idea of what ADHD is (P4_1:546). One participant mentioned that she finds people are under the impression that only boys have ADHD and that girls cannot be diagnosed with it: "*Only boys have ADHD. I was sitting like excuse me?*" (FG:683).

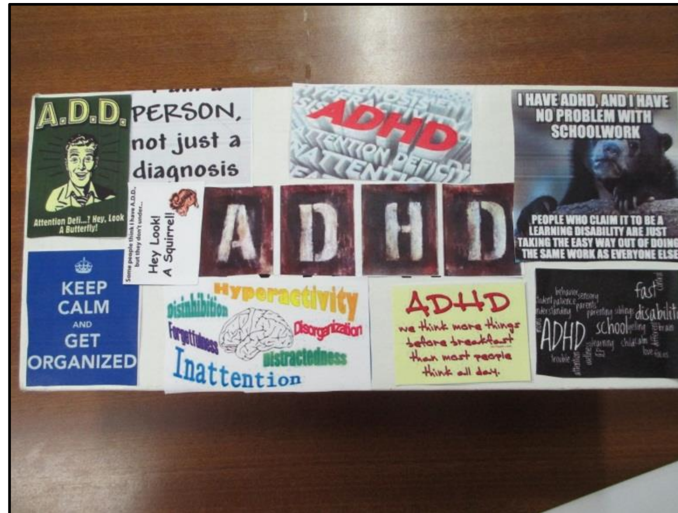

Image 4.9 & 4.10: *Reality box representing one participant's experience stereotyping* (Elana).

b) *People perceive adolescent girls as…*All the participants mentioned that they are perceived, especially by their peers, as weird and different (P2_1:637; P5_1:667; P7_1:199; FG:224). One of the participants mentioned that sometimes her behavior is perceived as attention seeking. Statements showed that the participants feel that they are perceived mainly by the manner that the primary characteristics of ADHD manifest in their behavior. According to some participants the general public perceives them as rude, retarded and depressed (P3_4:441; P4_1:500; P5_2:308; P7_1:201-202).

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c) *Negative experiences*. Participants voiced that some of the experiences they have had with people without ADHD were that they were being judged, teased, made believed that ADHD is bad and that they do not fit in (FG:1350). Elana stated that she feels judged as soon as it is known that she has ADHD (P4_1:525). Two participants agreed with this statement and felt that, although they have accepted their diagnosis, they chose not to share it with people due to being judged and labeled (P4_2:229-230; FG: 1142-1146). Lize stated that her experience of people, especially when she was younger, was that ADHD is not good and that it is an embarrassment. One participant indicated that she often feels that she does not fit in (P7_1:324-325). Another described it as "*…some people think that you're different to everyone else and they pick you out as someone they don't want to be friends with…*" (P2_1:558-559).

d) *Teachers in particular.* During the discussion on ADHD and teachers, in particular, the participants made it clear that their teachers are not aware of their diagnosis and therefore they receive no support in class (P2_2:550; P4_2:228). Faith responded: "*A lot of my teachers have no clue I'm ADHD at all*." (P5_2:368). All of the participants acknowledged that they do not mind their teachers knowing about their diagnosis but that they preferred them not knowing (P1_2:16; P4_2:229-230). They are of the opinion that their teachers are not knowledgeable about ADHD and do not understand the disorder. Carmen specifically stated that she feels that her teachers do not understand children with ADHD and that they are impatient (P2_2:287&289). She voiced that teachers, as with the general public, have preconceived ideas about ADHD due to a lack of knowledge or wrong information: "*Now if you backchat a teacher you've got ADHD*" (P5_2:193-194). All of them felt that it is due to this that teachers judge or label learners with ADHD which then results in the teachers treating them differently (P2_2:287; P4_2:234-235; P5_2:661).

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4.4 CONCLUSION

In this chapter the data was presented according to the various categories and topics as it emerged from the raw data. The findings, as it was integrated with existing literature, will be discussed in Chapter 5. The implications of the findings in practice, the limitations of the study, future research possibilities as well as the therapeutic implications of this study on the participants will also be discussed in the next chapter.

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CHAPTER 5:

DISCUSSION OF THE FINDINGS, REFLECTION, THE IMPLICATIONS OF THE STUDY FOR PRACTICE, THE LIMITATIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The aim of this study was to explore the experiences of adolescent girls with ADHD within a mainstream school. It focused specifically on their experiences in the areas of academic/scholastic development, peer and family relationships and how it can contribute to intervention strategies in order to support them. The study was conducted within an interpretive paradigm with the purpose of understanding these girls' experiences from how they make meaning of their experiences and having their 'voices' heard. By doing so I (the researcher) was able to gain insight into their meaning-making processes and thus made it possible for me to understand their experiences and what their needs are as adolescents with ADHD. In this chapter the findings of this study will be discussed and integrated with existing literature (see 5.2). I will further provide a brief reflection of the therapeutic purpose this study served to the participants as well as what implications the findings hold in practice. I will further also discuss the limitations of this study and provide recommendations for the road forward.

5.2 DISCUSSION OF RESEARCH FINDINGS

Considering that this research study has been formulated within the theoretical framework based on Bronfenbrenner's bio-ecological model, the interpretation and discussion of the research finding will also be formulated within this perspective. The purpose of this discussion is to integrate the findings and the theoretical context as discussed in Chapter 2. These findings were interpreted in the context of existing literature regarding ADHD in order to answer the research question (see also 2.2, 2.6, 2.7 and 2.10).

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Before inaugurating the discussion of the research findings, it is important to revisit the research question as it is formulated within the theoretical framework. The aim of this research study was to explore and describe how adolescent girls, in a mainstream school, experience their symptoms of ADHD and how it affects the proximal processes which in turn influence academic performance, peer and family relationships. By identifying the factors which influence the proximal processes, which direct learning and development, informed intervention strategies and support can be provided to teachers to accommodate these learners' learning needs. Bronfenbrenner's bio-ecological model is a multidimensional perspective on human development and describes the various levels of interaction between systems which lead to an individual's change, development and growth (Swart & Pettipher, 2011). For discussion purposes based on the findings of this research study, reference will only be made to those aspects of the bio-ecological model which are applicable. For a detailed description of the model please refer back to 2.2.

One dimension that the bio-ecological model refers to is the various contexts or environmental systems which influence the child's development directly or indirectly (Krishan, 2010; Swart & Pettipher, 2011). When discussing the results of this study this is a factor that should be kept in mind and it should be considered that this is a case study of which the results are represented by a small sample of representatives where the participants' person characteristics (see also 2.2.2) had an influence on their experience of ADHD. The process of proximal learning adds to the learning experience in various social contexts (Donald et al., 2010) and thus, giving meaning to experiences, depends on the interaction between individuals and their environment. Therefore, the results should be considered as such.

Time and space form an integral part of the bio-ecological model in which individual development occurs across the various systems (Swart & Pettipher, 2011). This development can refer to various aspects, i.e. proximal processes and/or behavior (see also 2.2.4). There was a time where it was thought that children can outgrow ADHD and that it does not persist into adolescence, but recent studies have indicated that it does

continue into this developmental stage (Walker et al., 2011). In this study it became evident that the participants do still experience their ADHD despite being adolescents. Their experiences of school and friendships in particular have undergone a noticeable change from primary school to high school. Although they still very much experience the symptoms of ADHD, the manifestation and its effect on their daily functioning have changed over time. These changes will be explained in further detail as the various themes are discussed.

5.2.1 Symptoms are influenced and maintained by both biological and environmental factors

The etiology of ADHD is a more complex interplay between biological and environmental factors (Antonucci, 2007). (See 2.6.1). Multiple studies do exist that indicate that children from families with a history of ADHD, are born with a pre-disposition and that multiple genes are responsible for this disorder (Barkley, 2000, 2007; Carr, 2006; Nikolas & Burt, 2010). The results from this study are consistent with the existing literature as it shows that six out of the seven participants' diagnoses seem to have hereditary roots. On the contrary there are theories in support of the fact that this disorder can be caused by environmental factors (Richards, 2012). Although most participants have family members with ADHD, there was one participant who reported that she does not know the cause for her ADHD as she is not aware of anyone in her family who has ADHD.

Not only is ADHD caused by certain factors, but there are also those factors that can maintain the symptoms (Carr, 2006). These factors are mainly in the individual's environment that lead to the symptoms manifesting throughout one's lifespan and in different areas of functioning (Richards, 2012). Results from this study showed that the participants were also of the opinion that there are factors that increase the manifestation and effect of their incessant symptoms. According to them they are mostly external factors such as the ceaseless talking of people (friends and teachers) which is not interesting, but boring. Barkley (2012) states that children with ADHD often find it

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difficult to control their behavior if there is not instant gratification or a reward for it. The responses from the participants were consistent with this in that they are of the opinion that they find that the manifestation of their symptoms increase or are more disruptive if they are bored or do not find something interesting. They admitted that the symptoms, such as a loss of concentration and focus, were very often due to the content in class, or what was being discussed, was not interesting to them, and that they found it difficult to pay attention when they were not actively involved.

However, the participants admitted that as much as there were factors that could intensify their symptoms, there were also factors that decreased or lessened the symptoms, which made it easier for them to control it. It is argued that those environmental factors which are more tolerant of the symptoms of ADHD and offer a more structured and supportive environment to individuals with this disorder, could help them to develop self-regulatory skills and coping strategies (Lange et al., 2005). Being actively involved in class activities and being interested in the content of the subject or topic of discussion are examples the participants mentioned to be decreasing factors. The results further showed that the symptoms could be decreased if the individual was pressure prompted and forced to focus and to pay attention. The participants acknowledged that they could make a conscious effort to control the symptoms of ADHD and that an environment, including other key players, was conducive and supportive in making the management of ADHD easier.

5.2.2 Experience of primary and emotional symptoms of ADHD

Results from the study show that the participants experience the primary symptoms of ADHD as a lack of concentration and being easily distracted, disorganisation, forgetfulness and often not listening when people talk to them. They described their experience of the hyperactivity as feeling like they have too much energy. Their tendency to talk excessively, to interrupt or blurt out was attributed to a difficulty in impulse control and was described by all the participants as the major challenge for them. All these symptoms correlate with the diagnostic criteria as set out in the DSM-IV-

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TR as well as the more recent DSM-5 (APA, 2000; Weyandt & DuPaul, 2008; APA, 2013). Added criteria to the DSM-5 are that the child is easily distracted by extraneous stimuli and in adolescents this may include unrelated thoughts as well as disorganisation manifesting in the form of poor time management (APA, 2013). See also 2.8.1 and 2.8.2. According to the participants it often happens that they go off topic due to their mind focusing on multiple stimuli (unrelated thoughts) and one of the main difficulties that they experience is poor time management and the tendency to procrastinate.

ADHD also manifests in other ways which are not listed as diagnostic criteria. People diagnosed with the inattentive subtype often appear as if they are daydreaming, drowsy and apathetic (Carr, 2006; Mash & Wolfe, 2013). The participants described that they were often perceived as daydreamers or as apathetic due to their tendency to lose focus. All the participants reported that they experienced difficulty in regulating their emotions which also affected their school performance and social interaction. Adolescents with ADHD suffer from higher emotional, social and academic difficulties than their peers who do not have this disorder (Walker et al., 2011). Adolescents are often described as emotionally more unstable with more regular mood swings but it has also been reported by researchers that this has been exaggerated (Louw et al., 2012; Wild & Swartz, 2012). According to Kendall et al. (2011), children with ADHD experience poor self-regulation which contributes to difficulties with the management of emotions which results in unpredictable mood swings. The results from the study showed that these adolescent girls struggle to regulate their emotions and experience constant emotional roller coasters. Adolescents with ADHD can become frustrated easily and they tend to have sudden outbursts of anger (Wolraich et al., 2005). This is consistent with the results from this study.

5.2.3 The experiences of adolescent girls with ADHD and…

Studies have shown that girls with ADHD experience academic, social and cognitive impairments (Babinski et al., 2011; Walker et al., 2011; Walker-Noack, Corkum, Elik & Fearon, 2013). The results from this study were consistent with the literature and the

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participants acknowledged that they experienced challenges in all these areas. They did however report that their experience of their ADHD was not necessarily just negative and that the disorder affected them more in certain areas than in others. These various effects will be discussed accordingly.

5.2.3.1 Academic / school

The participants reported that their experience of ADHD was mostly regarding their academic achievements and that their disorder affected them mostly negatively in this area. It appears as if their overall experience of school, more specifically with regards to social relationships, has improved over time and that it has improved in high school when compared to primary school in certain aspects. Although the participants perceive their creative abilities as a positive aspect and that they attribute this to their ADHD, they experience their disorder as more of a negative regarding their school work, having to be more independent and the workload becoming more demanding compared to primary school. According to Wolraich et al. (2005) adolescents with ADHD seem to experience more challenges regarding school work in high school due to the school demands increasing and the expectations rising for them to work independently from adult supervision (see also 2.10.1).

Although hyperactivity amongst adolescent girls with ADHD decreases, the symptoms rather manifest as being disorganised, and they find it challenging to complete tasks and to sustain their attention for long periods of time (Babinski et al., 2011; Weyandt & DuPaul, 2008; Wolraich et al., 2005). The results are consistent with the findings as they reported the lack of concentration caused them to fall behind with work and that they found it hard to pay attention to content which require long periods of concentration or which is not very interesting. Furthermore, these adolescents acknowledged that being disorganised caused them to be negligent in their work, made unnecessary mistakes and that they struggled to finish their work on time. These symptoms (disposition characteristics) thus limit the proximal processes and cause them to underachieve academically (see also 2.2.2). The primary symptoms of ADHD, together with the brain's

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inability to filter and separate relevant from irrelevant information, cause individuals to underachieve academically (Neary, 2007).

According to the *White Paper 6* (DoE, 2001) in South Africa all learners have access to mainstream schools and have the right to equal education and support where needed. This policy outlines that all learners, with or without special needs, have the right to mainstream education and the support they need. Although this policy also applies to learners with ADHD, there is a shortage of information on the perceptions from adolescents with ADHD themselves, regarding receiving support (Walker-Noack et al., 2013). Results from this study reiterate that there is a shortage as the adolescents were of the opinion that their disorder cannot be used as an excuse for academic achievement, or in this case underachievement, and that time concessions are not necessary. It seems as if they prefer to be actively involved and experience success like any other learner and that support and special accommodations are only necessary where needed (demand characteristics, see 2.2.2).

The older children with ADHD get, the more aware they become of their symptoms, and how it manifests and affects their daily functioning (Walker-Noack et al., 2013). Due to this they do tend to experience anxiety and a fear of their teachers and parents regarding school work which leads to a lower self-esteem, lack of motivation and procrastination (Fischer, 2007). The results also show that being aware of the effects of their disorder causes them to worry and stress about their school work. This in turn causes anxiety and them putting pressure on themselves. They tend to compare themselves and are of the opinion that they have to work harder than their peers without ADHD due to their primary symptoms.

5.2.3.2 Peer relationships

Characteristic to the adolescent stage of development, peer interaction and relationships become of increasing importance (Wolraich et al., 2005). See 2.10.2. This development can be explained within the time dimension of the bio-ecological model, as the interaction between systems varies in degree of impact, and can change as time

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progresses (Krishan, 2010). The results from the study are consistent with the literature as the participants reported that the nature of their friendships had changed over time from primary to high school. They reported that they all have a small group of close friends who play a very important role in their lives. The symptoms of ADHD seem to interfere with this kind of social interaction and often cause them to feel rejected and have poor relationship stability (Langley et al., 2010; Sciberras et al., 2012).

Contrary to the literature, the results in this study showed that these adolescent girls have a more positive than negative perception of their ADHD regarding their friendships. The results in this study showed that adolescent girls were of the opinion that their impulsivity and excessive talking helped them to be more spontaneous and social specifically in social interaction and that it contributed to them being more adaptable which is an attraction to peers. The results further showed that these girls experienced their friends accepting their diagnoses and described them as probably the most important support structure for them especially in school. They did however acknowledge that although it appeared as if they had unstable peer relationships because of them moving between friendship circles, it was more due to boredom and that they always return to their core circle of friends.

Although the results show that adolescent girls with ADHD have a more positive experience of their social relationships, it probably indicates that they are not oblivious to the negative influence that their disorder has on their friendships. According to Blachman and Hinshaw (2002) girls with ADHD, in particular, experience feelings of depression and anxiety. This is often due to a fear of peer rejection and low self-esteem caused by previous negative experiences due to the ADHD symptoms (Fisher, 2007). The literature is consistent with the results in this study as the participants acknowledged that they have lost friendships in the past due to their tendency to interrupt or blurt information out. Some participants also admitted that although they had strong friendships, they did have the constant fear that their symptoms could put strain on these friendships as well.

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Adolescence is a stage where experimenting with alternatives is developmentally appropriate and it is very likely that they will be confronted with peer pressure (APA, 2002). Due to the impulsivity characteristic to ADHD, adolescents with this disorder are more likely to show risky behavior and would give in to peer pressure more easily (Barkley, 2000). The participants in this study acknowledged that peer pressure was seen as part of adolescence and they acknowledged that, although they did sometimes give in under peer pressure, they never did so if they considered the nature of it to be dangerous or in contradiction to their values. Inconsistent to the literature, the results showed that ADHD cannot be used as an excuse to give in to peer pressure and these participants were of the opinion that it was more dependent on the values one has learnt at home and from one's parents. To my knowledge, this positive perception on ADHD, peer relationships and peer pressure contributes to the existing literature on this topic.

5.2.3.3 Family relationships

The sibling-relationships and the parent-child relationship play a very important role in a child's adjustment, well-being and self-esteem (Hauser-Cram et al., 2012). Although it is argued by some that if these relationships are negative, it contributes to and maintains the behavior of ADHD, other argue that positive and more tolerant relationships are more supportive to individuals with this disorder (Lange et al., 2005). In agreement with Lange et al. the results show that these adolescent girls are cognisant that their family is the most important support structure for them. They attribute this to their parents and siblings being acceptant of their disorder and providing the structure and support that they need to manage their ADHD.

The results did show, however, that ADHD does have a negative effect on the family relationships and that it is mainly due to its effect on academic performance (see also 2.10.3). One of the most common complaints amongst the parents of adolescents with ADHD is that their children experience problems in their academic work (Wolraich et al., 2005; Babinski et al., 2011). Participants reported that their disorganisation and tendency to procrastinate effect mainly their school work and that it was the main cause for fights with their parents. They acknowledged that their family members often had to

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help with school work which was left for the last minute and that this caused much stress.

All of the participants reported their sibling relationships to be nothing out of the ordinary and to be as expected from teenagers. They reported that their ADHD symptoms had no additional effect on their relationships with their siblings. Results did show, however, that the participants were of the opinion that those family members who are also diagnosed with ADHD, i.e. a mother or father, have a better understanding and empathy for them. The participants further gave recognition that their mothers in particular provided them with the needed structure and support to make it easier to handle their symptoms. Those participants whose mothers themselves were diagnosed with ADHD reported to have a much better understanding and ability to control their ADHD due their mothers' guidance and understanding of how this disorder manifests.

5.2.4 Lack of knowledge

Results showed that the participants themselves lack knowledge regarding their disorder. They acknowledged that no one has ever explained to them the causes of ADHD or what it really is other than what the symptoms are. Some participants voiced that being self-educated about their disorder would also help them to manage it better. Consistent with the literature (see 2.11.1), results show that there is a distorted picture of ADHD which causes stigmatising, stereotyping and labeling. According to Hinshaw (2005) there appears to be a shortage of research on adolescents' experiences of stigma or stereotyping regarding their mental health disorders. Due to the general public being misinformed about ADHD, their attitudes towards people with this disorder are influenced, and specifically adolescents with ADHD feel mistreated and left out (Walker-Noack et al., 2013). In accordance to this, results show that these adolescents feel that people are misinformed about ADHD due to their perception of the primary symptoms of the disorder and that it causes them to label and treat them differently.

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In particular, the results show that the adolescents, from experience and their own observations, are of the opinion that their high school teachers lack the knowledge of what ADHD is and how it manifests in adolescents. This causes them to not understand the teenagers' behavior and to have preconceived ideas regarding ADHD. These adolescents experience their teachers to not possess the skills to accommodate them in class and that they are rather labeled and treated differently as soon as their teachers are aware of their diagnosis. It is for this reason that the adolescents prefer to not reveal their diagnosis to their teachers which results in them not receiving the support that they need. Sibley et al. (2012) state that teachers in high school are far less knowledgeable than those in primary school on how to identify and accommodate learners with ADHD in their classrooms. They are not aware of what the symptoms of ADHD look like in adolescents and thus do not have the skills to address it in the classroom (Carr, 2006; Richards, 2012; Venter, 2004).

5.2.5 Adolescent girls' suggestions for intervention strategies

Walker-Noack et al. (2013) state that qualitative research is paramount to the identification and description of youth perceptions on the intervention strategies for ADHD. Results from this study address this need by describing these adolescent girls' suggestions on how to address ADHD. According to them one of the most important strategies is psycho-education for themselves as well as for parents and teachers on what ADHD is and how it can be managed. Psycho-education falls within the scope of practice of educational psychology (HPCSA, 2011) and it is, therefore, very important to educate parents about their child's ADHD. They need to be informed about the nature of the disorder, the various types and combinations of intervention as well as support that can be provided at home and at school (Carr, 2006). Further interventions suggested were to become aware of self-regulation and to teach one self to control/regulate the symptoms, to be involved in activities which are interesting and have rewards.

As the results from this study show that adolescent girls with ADHD experience mostly problems in the area of academic performance, their intervention strategies were more

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focused on this area as well. Children with ADHD struggle to comply with rules and the strict structure of the classroom (Hoza et al., 2001; Fischer, 2007). This is consistent with the results as it was reported that the environment (see 2.2.3) may contribute to these adolescent girls' struggle to pay attention in a classroom that is too strict and does not allow them to move around. Another suggestion is that the placement in class can make a difference. According to the participants the best placement is in the middle of the class. They further suggest that teachers should make their lessons interesting and fun, include the children in the class discussions and allow for a structured but more casual learning environment.

5.2.6 Medication influences the experience of ADHD

One of the major barriers to the effective management of ADHD amongst adolescents is that they do not administer their medication regularly (Hazell, 2007; Walker Noack et al., 2013; Wolraich et al., 2005). They hold a conflicting attitude towards their medication as they are aware of its benefits in that it improved concentration, behavior and improved academics but it also holds unpleasant side effects and negative psychological feelings (Walker-Noack et al., 2013). The most common side effects that have been reported by individuals taking the various types of medication include loss of appetite, headaches, stomach ache, growth suppression and sleeping difficulties (Carr, 2006; Mash & Wolfe, 2005). Consistent with the research, results also showed that the participants have mixed perceptions about their medication. The reported side effects were consistent with that of the literature and most of them acknowledged that they went through a phase of not wanting to administer the medication any more. Reasons for this were because of the side effects and also due to the psychological message it represented that there was something wrong with them.

A distinguishable difference was reported in behavior when on medication and when not. Participants reported that they experienced having much more energy, an inability to regulate their behavior and thus finding it difficult to control themselves. The adolescents have, however, admitted that they experienced that taking the medication

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was much more to their benefit than not taking it as it helped them to concentrate better, control their impulses and thus behave in a much more controlled manner. This decreased their anxiety and helped them with one of their biggest concerns which is academic performance.

5.2.7 ADHD is part of their identity

As already mentioned earlier (see 5.2.3.2), friends are of heightened importance during the adolescent phase and are central to establishing a sense of identity and competency (Elkins et al., 2011). Particularly to ADHD, adolescents appear to discuss their disorder as part of their personal identity (Raskind, Margalit & Higgins, 2006). The findings in this study correlate with this in that the participants reported that they accepted their ADHD and saw it as a part of them. A positive attitude towards ADHD was reported and it is described as a characteristic that makes these adolescent girls feel special and unique. This different, and new, view to perceiving their disorder as part of their person characteristic (see 2.2.2) contributes to existing literature and adds knowledge to how adolescents experience their ADHD. It brings a different dimension to the usual problem-saturated stories and medical focus. However, apart from the fact that these adolescents accept and embrace their diagnosis, they have admitted that due to the different experience they have when medicated it does cause them to question their identity and to wonder who they really are. Am I the person on or off medication?

5.3 SUMMARY

In 5.2 the integration of the existing literature and the findings from this study was discussed in reference to how adolescent girls with ADHD, in a mainstream school, experience the symptoms of the disorder and its effect on academic performance and relationships. From the findings it appears as if these adolescent girls experience a unique perception on their ADHD and how it affects their school experience, friendships, family relationships as well as their medication, their own identity and the stigmatisation that exists due to lack of knowledge. One of the purposes of this study was to make

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recommendations regarding intervention strategies on how to support these girls in a mainstream school and this has also been done accordingly.

5.4 REFLECTING ON THE RESEARCH PROCESS AND METHODS

I cannot end the research report without also reflecting on the research process and the methods that I used. Interviewing, either individually or in a focus group, is not only a means of data collection but the interaction also contributes to a therapeutic experience (Theron et al., 2011). Upon discussing the research process with each participant before commencing, it was written in their letters of assent (Addendum G) that by understanding what people in a certain situation go through, it is easier to adjust the environment to support them and for us to understand them. It was discussed with them that by understanding what adolescent girls with ADHD experience every day of their lives, it is easier for teachers, friends and parents to begin to learn and understand them better.

Results from this study showed that not only did these girls provide invaluable information that can contribute to the literature on ADHD, but that they also experienced the interviews as therapeutic. It played a therapeutic role in that they were able to identify and share with others in a similar life circumstance and that they were able talk about sensitive topics that were comprehended by the others. The girls were presented with opportunities to share their experiences with each other and to realise that there are other girls who have the same experiences that they have due to their ADHD.

Although the purpose was to collect data in a relationship characterised by an ethic of care, it soon became clear that it served a three-fold therapeutic purpose as it provided the participants with: i) a feeling of acceptance, ii) an opportunity to reflect on their disorder and iii) to be granted an opportunity to speak about their ADHD without being judged. Firstly the participants indicated a feeling of relief that they have realised that they are not the only ones with this disorder and that there are other girls who experience the same things. They voiced that it felt to them like they had found people

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who could identify and understand them. During the focus group interview it was suggested that these girls form a support group for each other in the school (FG:1315-1319). One participant said:

> *It's like I'm ADHD. Okay, tell us about yourself. It's like a rehab centre! But I feel like I've finally found somebody, some people to actually talk to about this stuff and felt like I've started accepting myself as ADHD…* (FG:1335-1340).

During the various interviews the participants also had the opportunity to reflect about their disorder and to consider a different angle on it than just the negative effects that it has on them. Many of the participants acknowledged that they learnt a lot about themselves and their ADHD (FG:1257-1258, 1277-1278, 1282). They also reflected that through the discussion, they have come to realise what good and supportive friends and families they have (FG:1258-1260). Lastly the participants also voiced that they enjoyed being able to talk about their ADHD without being labelled or stigmatised. The results showed that they found it to be a relief to be able to share their experiences in order for others to understand them better and to be the experts on a topic for a change (P7_1:398-399; FG:1276). Upon reflection I must admit that using the reality boxes as a technique was wise. As the participants themselves reported that they enjoy to be actively involved (see 5.2.1), the boxes served as a prop which encouraged conversation and to hold the participants' focus and interest. According to Ebersöhn et al. (2010) these boxes serve as a practical technique for individuals to understand their own circumstances and to be able to support others in similar positions.

5.5 IMPLICATIONS OF THE STUDY FOR PRACTICE

As discussed in 2.1 and 5.2.5, the role of educational psychologists is very important in various aspects on how to provide support in the learning and development of adolescent girls with ADHD in mainstream school. It will require a multi-dimensional approach where the focus needs to be on both the individual girl as well as the key role

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players in her environment, i.e. parents and teachers. The different aspects of a multi-dimensional approach which practitioners should focus on will be briefly discussed below.

5.5.1 Psycho-education

Practitioners should pay more attention to the psycho-education of the individual who is diagnosed with ADHD but also of the people who form the support structure for that individual. By educating the adolescent on what ADHD is, how it manifests differently depending on age and gender and also teaching them coping strategies they might be more capable to accept and manage themselves better. As the findings in Chapter 4 show the management of ADHD is influenced more positively if the individual's support structure is more accepting of the disorder. Thus it is necessary to educate the parent(s)/guardian(s) as well regarding ADHD in order for them to be more accepting of their daughter and to be able to comprehend and accommodate her better.

5.5.2 Educating and training teachers in mainstream schools

From the findings in this study it has become evident that teachers, and in particular high school teachers, lack the important knowledge about ADHD. Practitioners should focus on educating teachers on the primary symptoms of ADHD and how it can be identified amongst adolescent children, i.e. the manifestation of the primary symptoms. Support should also be provided to them in the form of suggestions on how they can adapt their teaching environments and styles to be more conducive to that of an adolescent child with ADHD.

5.5.3 Support to cope with the increasing demands of high school

Support should be provided to the individual with ADHD, as well as the parents and teachers in the forms of intervention strategies that can serve as support for these children. High school sets high expectations on adolescents and those with ADHD find it

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more and more challenging to deal with these demands. Support should be provided to teachers in order to guide them to deliver the necessary support that the adolescent with ADHD requires to reach his/her full academic potential. Small adjustments as suggested by the participants can make a big difference.

5.6 LIMITATIONS OF THE STUDY

One limitation of this study is that the findings cannot be generalised to a wider population as this was a case study in which the sample of participants were purposively selected. Knowledge gained from researching cases cannot necessarily be generalised as it is a very small part of a much bigger whole (Merriam, 1998; Yin, 2014). The findings in this study are represented by a mere 7 participants all from the same nationality and of whom all are enrolled in one specific mainstream high school. Every participant was at different stages regarding their experiences (Mullins & Preyde, 2013) and keeping in mind that each individual possesses her own meaning-making process, together with adolescence being a very sensitive developmental stage, the findings from this study can differ from person to person. Therefore, the adolescent girls' experiences regarding their ADHD can vary depending on age, race, culture, contexts and stage of development. According to Henning et al. (2004), qualitative research is not aimed at collecting 'thin' or 'simple' data but rather to gain an understanding regarding a phenomena in a specific context. Findings should, therefore, be generalised from context to context.

A second limitation to this study is that the interpretation of the results and the integration of the findings were possibly influenced by my own background, values, context and prejudices. Qualitative studies are limited by the sensitivity and integrity of the researcher (Merriam, 1998). The mere fact that I myself am not diagnosed with ADHD and am unable to fully understand the experience of ADHD influenced the extent to which I was able to interpret the results and understand them. It is further possible that the participants' reports on their experiences of ADHD are skewed as they have never experienced living without ADHD and thus have nothing to compare it to. Young

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adults with ADHD do experience difficulty with reporting their symptoms accurately (Hinshaw et al, 2012). They might not even recognise certain symptoms because they have already compensated for it without even realising it (Mullins & Preyde, 2013).

5.7 RECOMMENDATIONS FOR FUTHER RESEARCH

Due to the shortage of interpretive research on adolescent girls with ADHD that can contribute to valuable knowledge to existing literature, the following recommendations are made for future research:

- How do adolescent boys experience the effects of their ADHD?
- How do adolescents from various cultural backgrounds and/or contexts experience the effects of their ADHD?
- How does ADHD contribute to or counteract the forming of identity of adolescents with ADHD?
- What are the experiences and effects of medication of adolescents with ADHD?
- How do teachers in mainstream schools experience adolescents with ADHD?

The same study should also be replicated in different contexts to build theory about adolescent girls with ADHD.

5.8 CONCLUSION

The purpose of this study was to explore and describe how adolescent girls in a mainstream school experience their symptoms of ADHD and the effects on academic performance, peer and family relationships in order to develop more informed intervention strategies and to support teachers to accommodate their learning needs. From the findings discussed in 5.2 it appears as if the adolescent girls in this specific case have unique experiences with regards to their ADHD and that it has both positive effects and challenges in different areas of their daily functioning. In this chapter the therapeutic effect of this qualitative study was discussed as well as what the implications

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are for practitioners dealing with individuals with, and affected by, ADHD. It was further discussed what the limitations of this particular study were and what future potential research can focus on in regards to ADHD.

"*The world is like a big, giant machine. It doesn't come with spare parts…That's how I know* I also have a purpose in life…" (*Anri)*.

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LIST OF RESOURCES

Adulthood (n.d.). In Psychology Dictionary. Retrieved from http://psychologydictionary.org/adulthood#ixzz2ZbVDp0bf

Alderson P., & Morrow V. (2004). *Ethics, social research and consulting with children and young people*. Barnardos: Barkingside.

Allan, A. (2011). *Law and ethics in psychology: an international perspective* (2nd ed.). Somerset-West: Inter-Ed Publishers.

American Psychiatric Association (APA) (2000). *Diagnostic and Statistical Manual of Mental Disorders. Text revision* (DSM-IV-TR) (4th ed.). Washington, DC: American Psychiatric Association.

American Psychological Association (2002). *Developing adolescents: A Reference for professionals.* Retrieved from www.apa.org/pi/pii/develop.pdf

American Psychiatric Association (APA) (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Washington, DC: American Psychiatric Association.

American Psychiatric Association DSM-5 Development (2014). *Attention-Deficit/Hyperactivity Disorder.* Retrieved from http://www.dsm5.org/Documents/ADHD%20Fact%20Sheet.pdf

American Educational Research Association Code of Ethics (2011). *Educational Researcher, 40(3)*, 145-156. doi: 10.3102/0013189X11410403

Antonucci, D.L. (2007). Neurochemistry of ADHD: Treatment and implications. In Fischer, B.C. (Ed.), *Attention Deficit Disorder: Practical coping mechanisms* (2nd ed.) (pp. 293-310). Retrieved from http://informahealthcare.com.ez.sun.ac.za/doi/book/10.3109/ 9781420004724

Babinski, D.E., Pelham Jr., W.E., Molina, B.S.G., Gnagy, E.M., Waschbusch, D.A., Yu, J.,…Karch, K.M. (2011). Late adolescent and young adult outcomes of girls diagnosed with ADHD in childhood: An exploratory investigation. *Journal of Attention Disorders, 15*(3), 204–214. doi: 10.1177/1087054710361586

Bakare, M.O. (2012). Attention deficit hyperactivity symptoms and disorder (ADHD) among African children: A review of epidemiology and co-morbidities. *African Journal of Psychiatry, 15*, 358-361. doi: http://dx.doi.org/10.4314/ajpsy.v15i5 .45

Barbour, R. (2007). *Doing focus groups*. Los Angeles: SAGE Publications.

Stellenbosch University http://scholar.sun.ac.za

Barkley, R.A. (2000). *Taking charge of ADHD. The complete, authoritative guide for parents.* New York: The Guilford Press.

Barkley, R.A. (2007). School interventions for attention deficit hyperactivity disorder: Where to from here? *School Psychology Review, 36*(2), 279-286. Retrieved from http://web.b.ebscohost.com.ez.sun.ac.za/ehost/pdfviewer/pdfviewer?vid=5&sid=a452d2ad-ea0d-4b84-87143947dfa4cdb0%40sessionmgr112&hid=119

Barkley, R.A. (2012, July 13). The 30 essential ideas every parent needs to know [Video File]. Retrieved from https://www.youtube.com/watch?v=SCAGc-rkIfo

Barkley, R.A., & Fischer, M. (2011). Predicting impairment in major life activities and occupational functioning in hyperactive children as adults: Self-reported executive function (EF) deficits vs EF tests. *Developmental Neuropsychology, 36*(2), 137-161. doi: 10.1080/87565641.2010.549877

Barlow, D.H., & Durand, V. M. (2012). *Abnormal psychology: An integrative approach* (6th ed.). United States of America: Wadsworth Cengage Learning.

Biederman, J., Kwon, A., Aleardi, M., Chouinard, V.A., Marino, T., Cole, H.,…Faraone, S.V. (2005). Absence of gender effects on attention deficit hyperactivity disorder: Findings in nonreferred subjects. *The American Journal of Psychiatry, 162*(6), 1083-1089. Retrieved from ProQuest Database.

Biederman, J., Mick, E., Faraone, S.V., Braaten, E., Doyle, A.,…Johnson, M.A. (2002). Influence of gender on attention deficit hyperactivity disorder in children referred to a psychiatric clinic. *American Journal of Psychiatry, 159*(1), 36-42. doi: 10.1176/appi.ajp.159.1.36

Blachman, D.R., & Hinshaw, S.P. (2002). Patterns of friendship among girls with and without attention-deficit/hyperactivity disorder. *Journal of Abnormal Child Psychology, 30*(6), 625–640. doi: 10.1023/A:10208158149 73

Bramham, J., Young, S., Spain, D., McCartan, D., & Xenitidis, K. (2009). Evaluation of group cognitive behavioural therapy for adults with ADHD. *Journal of Attention Disorders*, 22(5), 434–441. doi: 10.1177/1087054708314596

Briscoe-Smith, A.M., & Hinshaw, S.P. (2006). Linkages between child abuse and attention-deficit/hyperactivity disorder in girls: Behavioural and social correlates. *Child Abuse & Neglect, 30*, 1239–1255. doi: 10.1016/j.chiab u.2006.04.008

Bronfenbrenner, U., & Morris, P.A. (2006). The bioecological model of human development. In W. Damon & A.M. Lerner (Eds.), *Handbook of child psychology: Theoretical models of human development Volume 1*, Sixth Edition (pp. 793-828). Retrieved from http://www.google.co.za/url?sa=t&rct=j& q=&esrc=s&frm=1&source=web&cd=2&ved=0CCQQFjAB&url=http%3A%2F%2Fedfa2402resources.yolasite.com%2Fresources%2FBronfenbrennerModelofDevelopment.pdf&ei=KsrUU52iKs-f7AaxwoGYDA&usg=AFQjCNHmDBf_- y_i oavO3iogrU6yMn9YQ&sig2=7OjSV0ZSpciijuPh5GDh-A

Carr, A. (2006). *The handbook of child and adolescent clinical psychology: A contextual approach* (2nd ed.). London: Routledge.

Clark, C., Prior, M., & Kinsella, G. (2002). The relationship between executive function abilities, adaptive behaviour, and academic achievement in children with externalising behaviour problems. *Journal of Child Psychology and Psychiatry, 43*(6), 785–796. Retrieved from EBSCOHost Database.

Collette, F., Hogge, M., Salmon, E., & Van Der Linden, M. (2006). Exploration of the neural substrates of executive functioning by functional neuroimaging. *Neuroscience, 139*(1), 209-221. doi: 10.1016/j.neuroscience.2005.05.035

Coombes, L., Appleton, J.V., Allen, D., & Yerrell, P. (2013). Emotional health and well-being in schools: Involving young people. *Children & Society, 27*, 220-232. doi: 10.1111/j.1099-0860.2011.00401.x

Creswell, J.W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Los Angeles: SAGE Publications.

Daniels, D. (2008). Exploring ethical issues when using visual tools in educational research. In P. Liamputtong, (Ed.). *Doing cross-cultural research: Ethical and methodological considerations.* The Netherlands: Springer.

Darian-Smith, K. & Henningham, N. (2012). Social research and the privacy and participation of children: Reflections on researching Australian children’s playlore. *Children & Society*, 1-12. doi: 10.1111/j.1099-0860.20 12.00475.x

Stellenbosch University http://scholar.sun.ac.za

De Lange, N., Mitchell, C., & Stuart, J. (2007). An introduction to putting people in the picture: Visual methodologies for social change. In N. De Lange, C. Mitchell & J. Stuart (Eds.). *Putting people in the picture. Visual methodologies for social change.* Rotterdam: Sense Publishers.

Denzin, N.K., & Lincoln, Y.S. (2011). Introduction: The discipline and practice of qualitative research. In N.K. Denzin & Y.S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (4th ed., pp. 1-19). Los Angeles: Sage Publications.

Department of Education, (2001). *Education White Paper 6 Special Needs Education: building an inclusive education and training system.* Pretoria: Department of Education.

Department of Health Republic of South Africa (2013). *National Mental Health Policy Framework and Strategic Plan 2013-2020*. Retrieved from http://www.phango.org.za/component/docman/doc_download/24-sa-mental-health-policyframewo rk-and-strategic-plan-as-adopted-by-nhc-2013

Department of Health (2006). *Rules of conduct pertaining specifically to the profession of psychology (Annexure 12).* Retrieved from http://www.hpcsa.co.za/Uploads/editor/UserFiles/downloads/conduct_ethics/rules/generic_ethical_rules/ethical_rules_annexure_12.pdf

Donald, D., Lazarus, S., & Lolwana, P. (2010). *Educational psychology in social context: Ecosystemic applications in Southern Africa*. Cape Town: Oxford University Press.

Dupuy, F.E., Clarke, A.R., Barry, R.J., McCarthy, R., & Selikowitz, M. (2008). EEG coherence in girls with attention-deficit/hyperactivity disorder: Stimulant effects in good responders. *International Journal of Psychophysiology*, *70*, 151-157. doi: 10.1016/j.ijpsycho.2008.07.012

Durrheim, K. (1999). Research design. In M. Terre Blance, K. Durrheim & D. Painter (Eds.). *Research in practice: Applied methods for the social sciences* (2nd ed., pp. 33-59). Cape Town: University of Cape Town Press.

Ebersöhn, L., Eloff, I., & Swanepoel-Opper, A. (2010). 'Memory boxes' as tool for community-based volunteers. *Education As Change, 14*(1), 73–84. doi: 10.1080/16823206.2010.517930

Elkins, I.J., Malone, S., Keyes, M., Iacono, W.G., & McGue, M. (2011). The impact of attention-deficit/hyperactivity disorder on preadolescent adjustment may be greater for girls than for boys. *Journal of Clinical Child & Adolescent Psychology, 40*(4), 532-545. doi: 10.1080/15374416.2011.581621

Engelbrecht, A. (2009). *Die belewing van adolossente met aandagte-kort/hiperaktiwiteitsversteuring – 'n Kollektiewe gevallestudie*. (Master's Thesis, Stellenbosch University, Stellenbosch, South Africa). Retrieved from http://hdl.handle.net/10019.1/3005

Faraone, S.V., Biederman, J., & Mick, E. (2006). The age-dependent decline of attention deficit hyperactivity disorder: a meta-analysis of follow-up studies. *Psychological Medicine*, *36*, 159–165. doi: 10.1017/S0033291705004 71X

Fedele, D.A., Lefler, E.K., Hartung, C.M., & Canu, W.H. (2012). Sex differences in the manifestation of ADHD in emerging adults. *Journal of Attention Disorders, 16*(2), 109–117. doi: 10.1177/1087054710374596

Fisher, B.C. (2007). What is ADD/ADHD? Diagnosing this disorder through time. Attention Deficit Disorder. In B.C. Fisher (Ed.), *Attention Deficit Disorder: Practical coping mechanisms* (2nd ed., pp. 1-10). Retrieved from http://informahealthcare. com.ez.sun.ac.za/doi/book/10.3109/ 9781420004724

Flyberg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry, 12(2)*, 219-245. doi: 10.1177/1077800405284363

Frances, A.J., & Nardo, J.M. (2013). ICD-11 should not repeat the mistakes made by DSM-5. *The British Journal of Psychiatry, 203*, pp. 1-2. doi: 10.1192/bjp.bp.113.1 27647

Frei, H., von Ammon, K., & Thurneysen, A. (2006). Treatment of hyperactive children: Increased efficiency through modifications of homeopathic diagnostic procedure. *Homeopathy, 95*(3), 163-170. doi: 10.1016/j.homp.2006.05.0 07

Furman, L. (2009). ADHD: What do we really know? In S. Timimi & J. Leo (Eds.), *Rethinking ADHD from brain to culture*, (pp. 21-57). Hampshire, England: Palgrave Macmillan.

Ganly, S. (2010). The 5 stages of child development. Retrieved from http://www.2010 http://voices.yahoo.com/the-5-stages-child-development-6451710.html

Stellenbosch University http://scholar.sun.ac.za

Gau, S.S., Ni, H.C., Shang, C.Y., Soong, W.T., Wu, Y.Y., Lin, L.Y., & Chiu, Y.N. (2010). Psychiatric comorbidities among children and adolescents with and without persistent attention-deficit/hyperactivity disorder. *Australian and New Zealand Journal of Psychiatry 44*(2): 135-143. doi: 10.3109/00048670903282733

Geldard, K., & Geldard, D. (2001). *Working with children in groups: a handbook for counsellors, educators and community workers*. Basingstoke: Palgrave.

Groenewald, C., Emond, A., & Sayal, K. (2009). Recognition and referral of girls with attention deficit hyperactivity disorder: Case vignette study. *Child Care, Health and Development*. doi: 10.1111/j.1365-2214.2009.00984.x

Harty, M., & Alant, E. (2005). Early childhood development and intervention. In E. Landsberg, D. Krüger & E. Swart (Eds.). *Addressing barriers to learning: A South African perspective* (pp. 87-105). Pretoria: Van Schaik Publishers.

Hauser-Cram, P., Cannarella, A.M., Tillinger, M., & Woodman, A.C. (2012). Disabilities and development. In I.B. Weiner (Ed.), *Handbook of psychology*, (2nd ed., pp. 547-569). New York: John Wiley & Sons, Inc.

Hathaway, W.L., & Barkley, R.A. (2003). Self regulation, ADHD and child religiousness. *Journal of Psychology and Christianity, 22*(2), 101-114. Retrieved from http://web .a.ebscohost.com.ez.sun.ac.za/ehost/pdfviewer/pdfviewer?vid=15&sid=8685f0bc-b4da-49ef-a8a0-5138bff211a3%40sessionmgr40 01&hid=4104

Hazell, P. (2007). Pharmacological management of attention-deficit hyperactivity disorder in adolescents: Special considerations. *CNS Drugs, 21*(1), 37-46. doi: 1172-7047/07/0001-0037

Health Professions Counsil of South Africa. (2011). *Government Notice. Regulations defining the scope of the profession Of psychology.* (*Report No.* 704). Retrieved from Sabinet Online. (NR34581).

Henning, E., van Rensburg, W., & Smit, B. (2004). *Finding your way in qualitative research.* Pretoria: Van Schaik Publishers.

Hesse-Biber, S.N., & Leavy, P. (2011). *The practice of qualitative research* (2nd ed.). Los Angeles: SAGE Publications.

Hinshaw, S.P. (2005). The stigmatization of mental illness in children and parents: Developmental issues, family concerns and research needs. *Journal of Child Psychology and Psychiatry, 46*(7), 714–734. doi: 10.1111/j.1469-7610.2005.01456.x

Hinshaw, S.P., Owens, E.B., Zalecki, C., Perrigue Huggins, S., Montenegro-Nevado, A.J., Schrodek, E., & Swanson, E.N. (2012). Prospective follow-up of girls with attention-deficit/hyperactivity disorder into early adulthood: Continuing impairment includes elevated risk for suicide attempts and self-injury. *Journal of Consulting and Clinical Psychology*, *80*(6), 1041–1051. doi: 10.1037/a0029451

Hoza, B., Pelham, W.E., Waschbusch, D.A., Kipp, H., & Owens, J.S. (2001). Academic task persistence of normally achieving ADHD and control boys: Performance, self-evaluations and attributions. *Journal of Consulting and Clinical Psychology, 69*(2), 271-283. doi: 10.I037//0022-006X.69.2.271

Hunt, R.D. (2006). Functional roles of norepinephrine and dopamine in ADHD. *Medscape Psychiatry*. Retrieved from http://www.medscape.org/viewarticle/523887

Kendall, J., Wagner, C., & Ruane, I. (2011). The experiences of primary school teachers of ADHD in their classrooms. *New Voices in Psychology, 7*(1), 19-34. Retrieved from http://reference.sabinet.co.za.ez.sun.ac.za/document/EJC112647

Krishnan, V. (2010). *Early child development: A conceptual model*. Early Childhood Council Annual Conference, 1-17. Christchurch, New Zealand. Retrieved from http://www.google.co.za/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=11&ved=0CGgQFjAK&url=http%3A%2F%2Fwww.cup.ualberta.ca%2Fwp-content%2Fuploads%2F2013%2F04%2FConceptualModelCUPwebsite_10April13.pdf&ei=ECO5U5WDMeTb7Aaf8IH4Dg&usg=AFQjCNEsz9qVaf45ZvyYHmhkoly4BRZJ3Q&sig2=rkEdkv7j92ydphlZ2NIUeQ&bvm=bv.70138588,d.ZGU

Kruger, C. (2013, February 24). Probleme met leer: ‘n uitweg. *Rapport*, pp. 14-15.

Kumar, R. (2011). *Research methodology: A step-by-step guide for beginners* (3rd ed.). Los Angeles: SAGE Publications.

Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing* (2nd ed.). Los Angeles: SAGE Publications.

Stellenbosch University http://scholar.sun.ac.za

Lahey, B.B., Pelham, W.E., Loney, J., Lee, S.S., & Willcutt, E. (2005). Instability of the DSM-IV subtypes of ADHD from preschool through elementary school. *Archives of General Psychiatry, 62*(8), 896-902. Retrieved from http://archpsyc.jamanetwork.com/article.aspx?articleid=208905

Lange, G., Sheerin, D., Carr, A., Dooley, B., Barton, V. & Marshall, D., …, Doyle, M. (2005). Family factors associated with attention deficit hyperactivity disorder and emotional disorders in children. *Journal of Family Therapy, 27*, 76-96. Retrieved from http://web.a.ebscohost.com.ez.sun.ac.za/ehost/pdfviewer/pdfviewer?vid= 3&sid=4167d9a0-d737-43fd-bdc707642d2747e0%40sessionmgr 400 2&hid=4114

Langley, K., Fowler, T., Ford, T., Thapar, A.K., van den Bree, M., Harold, G.,…Thapar, A. (2010). Adolescent clinical outcomes for young people with attention-deficit hyperactivity disorder. *The British Journal of Psychiatry*, *196*, 235–240. doi: 10.1192/bjp.bp.109.066274

Lincoln, Y.S., Lynham, S.A., & Guba, E. (2011). In N.K. Denzin & Y.S. Lincoln (Eds.). *The SAGE handbook of qualitative research* (4th ed., pp. 97-128). Los Angeles: SAGE Publications.

Liu, C.H., & Matthews, R. (2005). Vygotsky's philosophy: Constructivism and its criticisms examined. *International Education Journal, 6*(3), 386-399. Retrieved from http://eric.ed.gov/?id=EJ854992

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

Louw, A., & Louw, D. (2007). Die vroeë kinderjare. In D. Louw & A. Louw (Eds.), *Die ontwikkeling van die kind en die adolessent* (pp. 148-211). Bloemfontein: Psychology Publications.

Louw, A., & Louw, D. (2007). Middelkinderjare. In D. Louw & A. Louw (Eds.), *Die ontwikkeling van die kind en die adolessent* (pp. 214-275). Bloemfontein: Psychology Publications.

Louw, A., Louw, D. & Ferns, I. (2007). Adolessensie. In D. Louw & A. Louw (Eds.), *Die ontwikkeling van die kind en die adolessent* (pp. 278-347). Bloemfontein: Psychology Publications.

Stellenbosch University http://scholar.sun.ac.za

Marshall, C., & Rossman, G.B. (2011). *Designing qualitative research* (5th ed.). Los Angeles: SAGE Publications.

Mash, E.J., & Wolfe, D. A. (2005). *Abnormal child psychology* (3rd ed.). California: Thomson Wadsworth.

McLean, C. (2006). Questionnaire. In V. Jupp. *The SAGE Dictionary of Social research methods*. Retrieved from http://srmo.sagepub.com/view/the-sage-dictionary-of-social-research-methods/n168.xml

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

Merriam-Webster Dictionary (2014). Retrieved from http://www.merriam-webster.com /dictionary/context

Merriam-Webster Dictionary (2014). Retrieved from http://www.merriam-webster.com /dictionary/strategy

Mitchell, C. (2008). Getting the picture and changing the picture: Visual methodologies and educational research in South Africa. *South African Journal of Education*, *28*(3), 365-383. Retrieved from http://www.ajol.info/index.php/saje/article/view/25163/4362

Mitchell, D.B., & Hauser-Cram, P. (2009). Early predictors of behavior problems: Two years after early intervention. *Journal of Early Intervention, 32*(3), 3-16. doi: 10.1177/1053815109349113

Morrison, K. (2013). Interviewing children in uncomfortable settings: 10 lessons for effective practice. *Educational Studies, 39(3)*, 320-337. doi: 10.1080/03055698.2012.760443

Mouton, J. (2001). *How to succeed in your master's and doctoral studies: a South African guide and resource book*. Pretoria: Van Schaik.

Mullins, L., & Preyde, M. (2013). The lived experience of students with an invisible disability at a Canadian university. *Disability & Society, 28*(2), 147-160. doi: 10.1080/09687599.2012.752127

Muthukrishna, N. (2006). Inclusion and exclusion in school: Experiences of children labelled 'ADHD' in South Africa. In G. Lloyd, J. Stead & D. Cohen (Eds.), *Critical New Perspectives on ADHD* (pp. 96-114). New York: Routledge.

Stellenbosch University http://scholar.sun.ac.za

Neary, T. (2007, May). Attention, Attention! *Men's Health*, 192-198.

Neuman, W.L. (2000). *Social research methods: Qualitative and quantitative approaches* (4th ed.). Boston: Allyn and Bacon.

Nikolas, M.A., & Burt, S.A. (2010). Genetic and environmental influences on ADHD symptom dimensions of inattention and hyperactivity: A Meta-analysis. *Journal of Abnormal Psychology, 119*(1), 1–17. doi: 10.1037/a0018010

Nonstimulant Therapy and Other ADHD Drugs (n.d.). Retrieved from http://www.web md.com/add-adhd/guide/adhd-nonstimulant-drugs-therapy

Nordqvist, C. (2012). What is puberty? What is early puberty? What is late puberty? Retrieved from http://www.medicalnewstoday.com/articles/156451.php

Osborne, C. (2013). *Low dopamine in ADHD*. Retrieved from http://www.livestrong.com /article/335431-low-dopamine-in-adhd/

Patton, M.Q. (1987). *How to use qualitative methods in evaluation*. London: SAGE Publications.

Pellow, J., Solomon, E.M., & Barnard, C.N. (2011). Complementary and alternative medical therapies for children with attention-deficit/hyperactivity disorder (ADHD). *Alternative Medicine Review, 16*(4), 323-337. Retrieved from http://go.galegroup. com/ps/i.do?id=GALE%7CA277520360&v=2.1&u=27uos&it=r&p=AONE&sw=w& asid=9b94ae46e8ba878c71f576a7f3279cbf

Polanczyk, G., de Lima, M.S., Horta, B.L., Biederman, J., & Rhode, L.A. (2007). The worldwide prevalence of ADHD: A systematic review and metaregression analysis. *American Journal of Psychiatry, 164*(6), 942 – 948. doi: 10.1176/app i.ajp.164.6.942

Quinn, P. O. (2005). Treating adolescent girls and women with ADHD: Gender-specific issues. *Journal of Clinical Psychology, 61*(5), 579-587. doi: 10.1002/jc lp.20121

Quinn, P. (2011). The development of adult ADHD as an epidemiological concept: Gender differences in ADHD. In J. Buitelaar, C. Kan & P. Asherson (eds.). *ADHD in adults: Characterization, diagnosis and treatment*, (pp. 18-24). doi: http://dx.doi.org/10.1017/CBO9780511780752

Ramtekkar, U.P., Reiersen, A.M., Todorov, A.A., & Todd, R.D. (2010). Sex and age differences in attention-deficit/hyperactivity disorder symptoms and diagnoses: Implications for DSM-V and ICD-11. *Journal of the American Academy of Child & Adolescent Psychiatry*, *49*(3), 217-228. Retrieved from https://www-clinicalkey-com.ez.sun.ac.za/#!/ContentPlayerCtrl/doPlayContent/1s2.0S089085670900052 5/

Raskind, M., Margalit, M. H., & Higgins, E. L. (2006). "My LD": Children's voices on the Internet. *Learning Disability Quarterly, 29*(4), 253-268. Retrieved from http://web.b.ebscohost.com.ez.sun.ac.za/ehost/pdfviewer/pdfviewer?vid=3&sid=8 9424ec6-80 17-4584-96d4-20652764400a%40sessionmgr112&hid=103

Richards, L. (2009). *Handling qualitative data: A practical guide* (2nd ed.). Los Angeles: SAGE Publications.

Richards, L.M. (2012). It is time for a more integrated bio-psycho-social approach to ADHD. *Clinical Child Psychology and Psychiatry, 18*(4), 483–503. doi: 10.1177/1359104512458228

Rinsky, J.R., & Hinshaw, S.P. (2011). Linkages between childhood executive functioning and adolescent social functioning and psychopathology in girls with ADHD. *Child Neuropsychology*, *17*(4), 368-390. doi: 10.1080/09297049.2 010.5 44649

Saldaña, J. (2009). *The coding manual for qualitative researchers*. Los Angeles: SAGE Publications.

Sattler, J.M., Weyandt, L., & Roberts, M.A. (2002). Attention deficit/hyperactivity disorder. In J.M. Sattler (Ed.), *Assessment of children: Behavioral and clinical applications* (4th ed., pp. 263-280). San Diego: Jerome M. Sattler Publisher Inc.

Sciberras, E., Efron, D., & Iser, A. (2011). The child's experience of ADHD. *Journal of Attention Disorders, 15*(4), 321-327. doi:10.1177/1087054710361671

Sciberras, E., Ohan, J., & Anderson, V. (2012). Bullying and peer victimisation in adolescent girls with attention-deficit/hyperactivity disorder. *Child Psychiatry and Human Development, 43*(2), 254–270. doi: 10.1007/s10578-011-0264-z

Stellenbosch University http://scholar.sun.ac.za

Schwartz, S.J., Donnellan, M.B., Ravert, R.D., Luyckx, K., & Zamboanga, B.L. (2013). Identity development, personality and well-being in adolescence and emerging adulthood: Theory, research and recent advances. In I.B. Weiner (Ed.), *Handbook of Psychology* (2nd ed.). John Wiley & Sons, Inc.

Schwandt, T.A. (2007). The SAGE dictionary of qualitative inquiry (3rd ed.). Retrieved from http://srmo.sagepub.com.ez.sun.ac.za/view/the-sage-dictionary-of-qualitative-inquiry/SAGE.xml?type=entries

Seidman, I. (2006). *Interviewing as qualitative research. A guide for researchers in education and the social sciences* (3rd ed.). New York: Teachers College Press.

Seixas, M., Weiss, M., & Müller, U. (2011). Systematic review of national and international guidelines on attention-deficit hyperactivity disorder. *Journal of Psychopharmacology, 26*(6), 753–765. doi:10.1177/0269881111412095

Shaw, C., Brady, L., & Davey, C. (2011). *Guidelines for research with children and young people.* [NBC research Centre]. Retrieved from http://www.google.co.za/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&ved=0CCkQFjAA&url=http%3A%2F%2Fwww.nfer.ac.uk%2Fnfer%2Fschools%2Fdeveloping-youngresearchers%2FNCBguidelines.pdf&ei=4lAsU9DuPO-u7AbLgYGYCw&usg=AFQjCNHv62cTRyzBzBOxNwF5Q2SbniRJoQ&sig2=vhOaUpA38pRAcvw40zn8ZA&bvm=bv.62922401,d.Yms

Shaw-Zirt, B., Popali-Lehane, L., Chaplin, W., & Bergman, A. (2005). Adjustment, social skills, and self-esteem in college students with symptoms of ADHD. *Journal of Attention Disorders, 8*(3), 109-120. doi: 10.1177/10870547052777 75

Sibley, M.H., Pelham Jr., W.E., Molina, B.S.G., Gnagy, E.M., Waschbusch, D.A., Garefino, A.C.,...Karch, K.M. (2012). Diagnosing ADHD in adolescence. *Journal of Consulting and Clinical Psychology, 80*(1), 139–150. doi: 10.1037/ a0026577

Silverman, D. (2000). *Doing qualitative research: A practical handbook*. Los Angeles: SAGE Publications.

Silverman, D. (2005). *Doing qualitative research* (2nd ed). Los Angeles: SAGE Publications.

Silverman, D. (2006). *Interpreting qualitative data* (3rd ed.). Los Angeles: SAGE Publications.

Stellenbosch University http://scholar.sun.ac.za

Snyman, S., & Truter, I. (2010). Complementary and alternative medicine for attention deficit/hyperactivity disorder: An eastern cape study. *South African Family Practice, 52*(2), 161-162. Retrieved from SA ePublications Database.

Solanto, M.V., & Alvir, J. (2009). Reliability of DSM-IV symptom ratings of ADHD: Implications for DSM-V. *Journal of Attention Disorders, 13*(2), 107-116. doi: 10.1177/1087054708322994

Stake, R.E. (2005). Qualitative case studies. In N.K. Denzin & Y.S. Lincoln (Eds). *The SAGE handbook of qualitative research* (3rd ed, pp. 443-466). Los Angeles: SAGE Publications.

Stroud, L., Hardman, J., & Harrison, J. (2012). Early childhood. In J. Hardman (Ed.), *Child and adolescent development: A South African socio-cultural perspective* (pp.133-162). Cape Town: Oxford University Press.

Swanson, E.N., Owens, E.B., & Hinshaw, S.P. (2012). Is the positive illusory bias illusory? Examining discrepant self-perceptions of competence in girls with ADHD. *Journal of Abnormal Child Psychology, 40*(6), 987–998. doi: 10.1007/s10802-012-9615-x

Swart, E., & Pettipher, R. (2011). A framework for understanding inclusion. In E. Landsberg, D. Krüger & E. Swart (Eds.), *Addressing barriers to learning: A South African perspective* (2nd ed, pp. 3-26). Pretoria: Van Schaik Publishers.

Terre Blanche, M., & Durrheim, K. (1999). Histories of the present: social science research in context. In M. Terre Blanche & K. Durrheim (Eds.). *Research in practice: Applied methods for the social sciences* (pp. 1-16). Cape Town: University of Cape Town Press.

The Bio-ecological model [Image] (n.d.). Retrieved from http://media-cache-ec0.Pinimg.com/236 x/98/ff/7f/98ff7fb05eed7ab262255bea04d9e5e3.jpg

The Brain Wellness Program. (2013). Retrieved from http://www.neurogistics.com/thescience/whatareneurotransmi09ce.asp

The Institute for Human Services for The Ohio Child Welfare Training Program. (2007). Retrieved from uppua.org/.../Effects%20of%20Abuse%20and%20Neglect%20on%20Ch...

Stellenbosch University http://scholar.sun.ac.za

Theron, L., Mitchell, C., Smith, A., & Stuart, J. (Eds.). (2011). *Picturing research: Drawing as visual methodology.* Rotterdam: Sense Publishers.

Trochim, W.M. (2000). *The research methods knowledge base* (2nd ed.). Retrieved from <http://trochim.human.cornell.edu/kb/index.htm>

Tudge, J.R.H., Mokrova, I., Hatfield, B.E., & Karnik, R.B. (2009). Uses and misuses of bronfenbrenner's bioecological theory of human development. *Journal of Family Theory & Review*, *1*(4), 198–210. doi: 10.1111/j.1756-2589.2009.0 0026.x

UNESCO, (1994). *The Salamanca Statement and Framework for Action on Special Needs Education*. Paris: UNESCO.

U.S. Department of Health and Human Services (2010). Summary health statistics for U.S. children: National health interview survey, 2009. Data From the National Health Interview Survey. *Vital and Health Statistics, 10*(247)*,* 1-8.

Valenzuela, D., & Shrivastava, P. (n.d.). Interview as a method for qualitative research [Powerpoint Slides]. Retrieved from http://www.google.co.za/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&ved=0CC4QFjAA&url=http%3A%2F%2Fwww.public.asu.edu%2F~kroel%2Fwww500%2FInterview%2520Fri.pdf&ei=1QguU4_eEO6v7Ab6xoGgBg&usg=AFQjCNEJUYcHJnhB-3FdOG35bfKoNvgwLw&sig2=GZFVxJJZyWFifZZEb-Km1Q

Venter, A. (2004). Attention deficit/hyperactivity disorder (ADHD). *Continuing Medical Education, 22*(8), 444-448. Retrieved from http://www.ajol.info/index.php/cme/article/view/44001/27517

Walker, S., Venter, A., van der Walt, A., & Esterhuyse, K.G.F. (2011). Prevalence of attention-deficit/hyperactivity disorder (ADHD) symptomatology and psychiatric co-morbidity among adolescents diagnosed with ADHD in childhood. *South African Journal of Psychiatry*, *17*(1), 24-28. Retrieved from http://www.ajol.info/index.php/sajpsyc/article/view/68842/56919

Walker-Noack, L., Corkum, P., Elik, N., & Fearon, I. (2013). Youth perceptions of attention-deficit/hyperactivity disorder and barriers to treatment. *Canadian Journal of School Psychology, 28*(2), 193–218. doi: 10.1177/0829573513491232

Welsh Assembly Government (n.d.). ADHD: Training and support for clinicians. Retrieved from www.adhdtraining.co.uk/downloads/ADHD-training.pdf

Stellenbosch University http://scholar.sun.ac.za

Weyandt, L.L., & DuPaul, G.J. (2008). ADHD in college students: Developmental findings. *Developmental Disabilities*, *14*, 311 – 319. doi: 10.1002/ddrr.38

Who Can Diagnose ADHD? (n.d.). Retrieved from http://www.additudemag.com/web/article/565.html

Wild, L. (2012). Middle childhood. In J. Hardman (Ed.), *Child and adolescent development: A South African socio-cultural perspective* (pp.163-202). Cape Town: Oxford University Press.

Wild, L., & Swartz, S. (2012). Adolescence. In J. Hardman (Ed.), *Child and adolescent development: A South African socio-cultural perspective* (pp. 203-244). Cape Town: Oxford University Press.

Willoughby, M.T. (2003). Developmental course of ADHD symptomatology during the transition from childhood to adolescence: A review with recommendations. *Journal of Child Psychology and Psychiatry, 44*(1), 88–106. Retrieved from EBSCOHost Database.

Winter, K. (2012). Ascertaining the perspectives of young children in care: Case studies in the use of reality boxes. *Children & Society, 26*(5), 368–380. doi:10.1111/j.1099-0860.2010.00335.x

Wolraich, M.L., Wibbelsman, C.J., Brown, T.E., Evans, S. W., Gotlieb, E.M., Knight, J.R., & Wilens, T. (2005). Attention-deficit/hyperactivity disorder among adolescents: A review of the diagnosis, treatment, and clinical implications. *Pediatrics*, *115*(6), 1734-1746. doi: 10.1542/peds.2004-1959

World Health Organisation (2010). *The ICD-10 classification of mental and behavioural disorders: Diagnostic criteria for research*. Retrieved from www.who.int/entity/classifications/icd/en/GRNBOOK.pdf

Yin, R.K. (2014). *Case study research: Design and methods* (5th ed.). Los Angeles: SAGE Publishers.

Zartler, U., & Richter, R. (2012). My family through the lens: Photo interviews with children and sensitive aspects of family life. *Children & Society*, 26(1), 1-13. doi: 10.1111/j.1099-0860.2012.00447.x

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ADDENDUM A

LETTER OF APPROVAL FROM THE RESEARCH ETHICS COMMITTEE: HUMAN RESEARCH (HUMANIORA) OF STELLENBOSCH UNIVERSITY

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Approval Notice

Response to Modifications- (New Application)

25-Jun-2013
Jacobs, Lianie L

Proposal #: [redacted]

Title: **Understanding the experiences of adolescent girls with AD/HD: A Case Study**

Dear Ms [redacted]

Your **Response to Modifications** - *(New Application)* received on , was reviewed by members of the **Research Ethics Committee: Human Research (Humanities)** via Expedited review procedures on **14-Jun-2013** and was approved.
Please note the following information about your approved research proposal:

Proposal Approval Period: [redacted]

Please take note of the general Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

Please remember to use your **proposal number** [redacted] on any documents or correspondence with the REC concerning your research proposal.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

Also note that a progress report should be submitted to the Committee before the approval period has expired if a continuation is required. The Committee will then consider the continuation of the project for a further year (if necessary).

This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki and the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health). Annually a number of projects may be selected randomly for an external audit.

National Health Research Ethics Committee (NHREC) registration number [redacted]

We wish you the best as you conduct your research.

If you have any questions or need further help, please contact the REC office at [redacted]

Included Documents:
Research proposal
Informed consent
Interview guide
REC Application
DESC form

Sincerely,

[redacted]
REC Coordinator
Research Ethics Committee: Human Research (Humanities)

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ADDENDUM B

LETTER OF APPROVAL FROM THE WESTERN CAPE EDUCATION DEPARTMENT

Stellenbosch University http://scholar.sun.ac.za

Directorate: Research

tel: +

Fax:

Private Bag x9114, Cape Town, 8000

wced.wcape.gov.za

APPLICATION TO CONDUCT RESEARCH IN PUBLIC SCHOOLS WITHIN THE WESTERN CAPE

Note

- This application has been designed with students in mind.
- If a question does not apply to you indicate with a N/A
- The information is stored in our database to keep track of all studies that have been conducted on the WCED. It is therefore important to provide as much information as is possible

1 APPLICANT INFORMATION

1.1 Personal Details		
1.1.1	Title (Prof / Dr / Mr/ Mrs/Ms)	
1.1.2	Surname	
1.1.3	Name (s)	
1.1.4	Student Number (If applicable)	

1.2 Contact Details		
1.2.1	Postal Address	
1.2.2	Telephone number	
1.2.3	Cell number	
1.2.4	Fax number	**n/a**
1.2.5	E-mail Address	

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1.2.6	Year of registration	**2012**
1.2.7	Year of completion	**2013**

2 DETAILS OF THE STUDY

2.1 Details of the degree or project		
2.1.1	Name of the institution	**Stellenbosch University**
2.1.2	Degree / Qualification registered for	**Masters in Educational Psychology**
2.1.3	Faculty and Discipline / Area of study	**Faculty of Educational Psychology / Master's Thesis: Attention Deficit/Hyperactivity Disorder**
2.1.4	Name of Supervisor / Promoter / Project leader	
2.1.5	Telephone number of Supervisor / Promoter	
2.1.6	E-mail address of Supervisor / Promoter	

2.1.7	**Title of the study**
Understanding the experiences of adolescent girls with ADHD: A Case Study	

2.1.8	**What is the research question, aim and objectives of the study**

Research Question:

"How do adolescent girls experience the effects of their ADHD symptoms in a mainstream school?"

PURPOSE OF THE RESEARCH:

The purpose of this study is to explore the experiences of adolescent girls who have been diagnosed with ADHD in order to understand how the symptoms of this disorder affect them in the areas of academic performance, peer relationships as well as their relationships with their family.

AIMS AND OBJECTIVES OF THE RESEARCH: ***(Please list objectives)***

- To analyse and describe the effect of the symptoms of ADHD on girls' academic

performance, peer and family relationships

- To determine how other's perception, as well as the girls' own, of the diagnosis of ADHD plays a role in the formation of these girls' identities
- To determine and identify possible adaptive behavioral strategies these girls have learnt to enable them to manage the symptoms of ADHD specifically in the areas of academic performance, peer and family relationships
- To identify, with the input of these girls diagnosed with ADHD themselves, what strategies can be put into place in order to effectively support adolescents with ADHD in a mainstream school

2.1.9	**Name (s) of education institutions (schools)**

2.1.10	**Research period in education institutions (Schools)**	
2.1.11	Start date	**15 July 2013**
2.1.12	End date	**23 August 2013**

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ADDENDUM C

LETTER TO PRINCIPAL REQUESTING PERMISSION TO CONDUCT THE STUDY IN THE PARTICULAR SCHOOL

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STELLENBOSCH UNIVERSITY
PERMISSION TO CONDUCT RESEARCH

8 April 2013

The Principal

Dear Principal,

RE: REQUESTING PERMISSION TO CONDUCT A RESEARCH STUDY IN YOUR SCHOOL

I hereby request permission from you to conduct a research study with learners from your school from 19 August 2013 to 27 September 2013. The purpose of the study is to explore the experiences of adolescent girls (N=7; female) with ADHD in a mainstream school.

The following will be requested from each participant:

- Female and between 13 and 18 years old.
- Attend 4 individual interviews over a period of 4 consecutive weeks of 45-60 minutes each. All interviews will be recorded. There will be one discussion per week, after school hours, of which the time will be negotiated.
- Attend a group interview during the 5th week of the study of 60-90 minutes long. This interview will be recorded.
- All interviews will take place in the counseling office of the school.
- Personal documents will be consulted in order to verify certain information.
- Voluntary participation

I would like to bring the following under your attention:

- Permission must be obtained from the Western Cape Education Department (WCED).

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- An email will be sent to all parents requesting their daughter to volunteer as a participant in the study.
- Informed consent must be obtained from the parent(s)/guardian(s) and the participants.
- It is the participant's choice whether she wants to participate in this study or not.
- The parents will be allowed to withdraw their daughter from the study at any time if circumstances require it.
- The participant will be allowed to withdraw from the study at any time without any consequences.
- The participant does not have to answer any questions that she does not want to.
- Information gained during the research can only be disclosed with the participant's permission or as required by law.
- All interviews will be recorded and the participant has the right to review or edit the recordings any time at her request.
- Photos will be taken of research material during the interviews for research purposes. The participant will be asked for permission to take these photos and she has the right to disallow it.
- All data will be saved on the research student's personal computer which is secured with a password.

Should you grant me permission to conduct the research in your school, please be so kind to sign the attached letter.

Yours sincerely

Masters student
Stellenbosch University

PROF

Supervisor
Department of Educational Psychology
Stellenbosch University

Stellenbosch University http://scholar.sun.ac.za

SIGNATURE OF PRINCIPAL

I, [redacted], hereby grant [redacted] permission to conduct her study, which focuses on exploring the experiences of adolescent girls with AD/HD, for the time period [redacted] in the school. Information regarding ethical consent from all relevant parties as well as procedures for the study has been discussed with me. I am also aware, and respect, that information regarding the participants is confidential.

[redacted]
Signature of Principal (acting)

11.4.2013
Date

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ADDENDUM D

LETTER EMAILED TO REQUEST PARTICIPATION
(English and Afrikaans)

Stellenbosch University http://scholar.sun.ac.za

19 July 2013

Dear Parent(s)/Guardian(s)

Participation of adolescent girls with ADHD in a research project

I have received permission from the Western Cape Educational Department, as well as your school principal, to launch a research study in the school. The aim of the study is to understand the experiences of adolescent girls diagnosed with ADHD in a mainstream school. Most research that has been done on ADHD has been focused on younger children and mostly boys. Through researching how this diagnosis affects teenage girls specifically in their academics, peer and family relationships it will enable parents and teachers to provide more effective support to girls with ADHD in mainstream schools.

I would like to invite girls to volunteer to take part in this study. To be included in the study the following criteria should be met by the participant:

- Female
- Between the age of 13 and 18 years old
- Diagnosed with ADHD (inattentive, hyperactive or combined type) 6 months prior to this study by a trained health professional
- Currently attending [redacted] School

It is important to take note of the following:

- Your daughter's identity will be kept confidential at all times
- The study will consist of 5 interviews over a time period of 5 weeks
- Interviews will be done after school hours in the counseling office at the school
- Participants will have to prepare for each interview
- No rewards will be given for participation
- Private documents will be consulted

If you and your daughter should decide that she can participate in this study, I will appreciate it if you can complete the form attached to this email and return it electronically by Friday, 26 July 2013. I will then contact you personally to schedule a time when you, your daughter and I can meet to discuss the procedures and the rights that you and your daughter have. Please take note that by replying to this email you are not committing your daughter to the study and that your daughter will have the right to withdraw at any stage.

Stellenbosch University http://scholar.sun.ac.za

Contact details:

Kind regards

Masters student
Stellenbosch University

PROF

Supervisor
Department of Educational Psychology

Stellenbosch University http://scholar.sun.ac.za

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19 Julie 2013

Geagte Ouer(s)/Voog(de)

Deelname van adolessente meisies met ATHV in 'n navorsingsprojek

Ek het toestemming ontvang van die Wes-Kaapse Onderwysdepartement, sowel as u skoolhoof, om 'n navorsingsprojek in die skool te loods. Die doel van hierdie studie is om die ervaringe van adolossente meisies met ATHV, in 'n hoofstroom skool, te verstaan. Die meeste navorsing wat tot op hede gedoen is oor ATHV fokus meestal om jonger kinders en meer spesifiek om seuns. Deur navorsing te doen oor hoe hierdie diagnose tienermeisies spesifiek in hul akademie, portuur- en familieverhoudinge affekteer, mag dit ouers en onderwysers in staat stel om meer effektiewe ondersteuning aan dogter met ATHV, in hoofstroom skole,te voorsien.

Ek wil graag meisies uitnooi om vrywilliglik deel te neem aan hierdie studie. Om te kan deelneem aan hierdie studie moet die deelnemer aan die volgende kriteria voldoen:

- Vroulik
- Tussen die ouderdomme van 13 en 18 jaar oud
- Gediagnoseer met ATHV (onoplettende, hiperaktiewe of kombineerde tipe) 6 maande voor die aanvang van hierdie studie. Diagnose moes deur 'n opgeleide gesondheidspraktisyn gemaak wees
- Is huidiglik in Hoërskool

Dit is belangrik dat daar kennis geneem word van die volgende:

- U dogter se identiteit sal te alle tye konfidensïeel gehou word
- Hierdie studies al uit 5 onderhoude oor 'n tydperk van 5 weke strek
- Onderhoude sal na skoolure geskied in die beradingskantoor van die skool
- Daar sal van die deelnemers verwag word om vir elke onderhoud voor te berei
- Geen betaling sal aan die deelnemer gebied word nie
- Privaat dokumente sal gekonsulteer word

Indien u en u dogter sou besluit dat sy kan deelneem aan hierdie studie, sal ek dit waardeer as u die vorm, aangeheg aan hierdie e-pos, sal invul en dit teen Vrydag, 26 Julie 2013, elektronies aan my terug sal stuur. Ek sal u dan persoonlik kontak om 'n tyd te skeduleer waartydens u, u dogter en ek kan ontmoet. Tydens hierdie ontmoeting sal die prosedures van die studie sowel as u en u dogter se regte bespreek word. Neem asseblief daarvan kennis dat u geensins u dogter aan die studie verplig sou u op hierdie e-pos reageer nie en dat u dogter oor die reg beskik om ter enige tyd te onttrek.

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Kontakbesonderhede:

Vriendelike groete

Meesterstudent
Stellenbosch Universiteit

PROF
Supervisor
Department van Opvoedkundige Sielkunde

Stellenbosch University http://scholar.sun.ac.za

ADDENDUM E

FORM WITH PERSONAL DETAILS ATTACHED TO EMAIL
(English and Afrikaans)

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UNIVERSITEIT•STELLENBOSCH•UNIVERSITY
jou kennisvennoot • your knowledge partner

UNDERSTANDING THE EXPERIENCES OF ADOLESCENT GIRLS WITH ADHD: A CASE STUDY

(*please mark with an X where applicable*)

<u>*Parents(s)/Guardian(s)</u> must please complete the information below:

	FATHER (BIO/FOSTER)/GUARDIAN		MOTHER (BIO/FOSTER)/GUARDIAN	
SURNAME:				
NAME:				
HOME ADDRESS:				
CONTACT NUMBERS:	**Home:**		**Home:**	
	Work:		**Work:**	
	Cell:		**Cell:**	
Email:				

We/I hereby grant you permission to contact us/me to schedule an appointment to discuss the research process with us/me and our/my daughter. We/I prefer to be contacted by (*please indicate with an X*):

Tel nr (h)		Tel nr (w)		Cell		Email	

<u>*Volunteer</u> must please complete the information below:

SURNAME:					
NAME:					
DATE OF BIRTH	YY/MM/DD	**AGE:**		**GRADE:**	

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HOME ADDRESS:								
CONTACT NUMBERS:	**Home:**				**Cell:**			
EMAIL:								
HOME LANGUAGE:	**AFR**		**ENG**		**XHOSA**		**OTHER:**	
SIBLINGS:	**YES**		**NO**		**Number:**			

I hereby grant you permission to contact me to schedule an appointment to discuss the research process with me and my parent(s). I prefer to be contacted by (*please indicate with an X*):

Tel nr (h)		**Cell**		**Email**	

***INFORMATION REGARDING ADHD:**

HAVE YOU BEEN DIAGNOSED WITH ADHD?	**YES**		**NO**			
TYPE:	**Inattentive**		**Hyperactive**		**Combined**	
WHEN WERE YOU DIAGNOSED? (*Age*)						
NAME OF HEALTH PROFESSIONAL WHO MADE THE DIAGNOSIS:						
PROFESSIONAL'S QUALIFICATION (*Pedeatrician, psychiatrist etc.*):						
HAVE YOU BEEN PRESCRIBED MEDICATION BEFORE? (*Ritalin, Concerta etc.*)	**YES**		**NO**			
ARE YOU CURRENTLY ON MEDICATION?	**YES**		**NO**			
IN WHICH AREAS DOES ADHD AFFECT YOU THE MOST?	**ACADEMIC**					
	PEERS					
	FAMILY					

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In short, describe how you experience your diagnosis of ADHD in general?

Date completed:

Please email this form back to:

Thank you for your interest!

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UNDERSTANDING THE EXPERIENCES OF ADOLESCENT GIRLS WITH ADHD: A CASE STUDY

(*merk asseblief met 'n X waar van toepassing*)

<u>*Ouer(s)/Voog(de)</u> moet asseblief die inligting hieronder invul:

	VADER (BIO/PEET)/VOOG		**MOEDER (BIO/PEET)/VOOG**	
VAN:				
NAAM:				
HUISADRES:				
KONTAKNOMMERS:	**Huis:**		**Huis:**	
	Werk:		**Werk:**	
	Sel:		**Sel:**	
Epos:				

Hiermee gee ons/ek toestemming dat u ons/my kan kontak om 'n afspraak te skeduleer waartydens die navorsingsproses met ons/my en ons/my dogter bespreek sal word. Ons/ek verkies dat u my sal kontak by (*dui asseblief met 'n X aan*):

Tel nr (h)		**Tel nr (w)**		**Sel**		**Epos**	

<u>*Vrywilliger</u> moet asseblief die volgende inligting verskaf:

VAN:					
NAAM:					
GEBOORTEDATUM:	JJ/MM/DD	**OUDERDOM:**		**GRAAD:**	

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HUISADRES:							
KONTAKBESONDER-HEDE:	**Huis:**			**Sel:**			
EPOS:							
HUISTAAL:	**AFR**		**ENG**		**XHOSA**		**ANDER:**
SIBBE:	**JA**		**NEE**		**Aantal:**		

Hiermee gee ek toestemming dat u my kan kontak om 'n afspraak te skeduleer waartydens die navorsingsproses aan my en my ouer(s) verduidelik sal word. Ek verkies dat u my sal kontak by (*dui asseblief met 'n X aan*):

Tel nr (h)		**Sel**		**Epos**	

***INLIGTING OMTRENT ATHV:**

IS JY GEDIANOSEER MET ATHV?	**JA**		**NEE**			
TIPE:	**Afleibaarheid**		**Hiperaktief**		**Kombineerd**	
WANNEER IS JY GEDIAGNOSEER? (*Ouderdom*)						
NAAM VAN GESONDHEIDSKUNDIGE WIE DIE DIAGNOSE GEMAAK HET:						
KWALIFIKASIES VAN GESONDHEIDSKUNDIGE (*Pediater, psigiater ens.*):						
IS ENIGE MEDIKASIE VIR VOORGESKRYF? (*Ritalin, Concerta ens.*)	**JA**		**NEE**			
IS JY HUIDIGLIK OP MEDIKASIE?	**JA**		**NEE**			
IN WATTER AREA AFFEKTEER ATHV JOU DIE MEESTE?	**AKADEMIES**					
	PORTUUR					
	FAMILIE					

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Beskryf kortliks hoe jy die diagnose van ATHV oor die algemeen ervaar.

Datum:

Epos asseblief die vorm terug aan:

Dankie vir u belangstelling!

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ADDENDUM F

CONSENT FROM PARENT(S)/GUARDIAN(S) TO PARTICIPATE IN RESEARCH (English and Afrikaans)

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STELLENBOSCH UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

Understanding the experiences of adolescent girls with ADHD: A Case Study

Your daughter,_________________________________ is asked to participate in a research study conducted by [redacted], a Masters student from the Faculty of Educational Psychology at Stellenbosch University. The results of this study will be contributed to a research thesis. Your daughter was selected as a possible participant in this study due to her diagnosis of ADHD which meets the requirements for this study.

1. PURPOSE OF THE STUDY

The aim of this study is to explore the experiences of adolescent girls who have been diagnosed with ADHD in order to understand how the symptoms affect them in the areas of academic performance, peer relationships as well as their relationships with family.

2. PROCEDURES

The number of participants will consist of 7 adolescent girls enrolled at the same mainstream high school. Should your daughter volunteer to participate in this study, the following will be requested from her:

- Attend 4 individual interviews over a period of 4 consecutive weeks of 45-60 minutes each. All interviews will be recorded. There will be one discussion per week of which the time will be negotiated.
- Attend a group interview during the 5th week of the study of 60-90 minutes long. This interview will be recorded.
- All interviews will take place in the counseling office of the school.
- A detailed description will be provided to your daughter in preparation for each week's interview.
- Personal documents will be consulted in order to verify certain information.

3. POTENTIAL RISKS AND DISCOMFORTS

Arrangements will be made to address the following potential risks:

- Participant's busy schedule and limited time available for participating in this study.
- Interviews will occur once a week at a time that will be negotiated.

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- Participant's identity must be kept confidential.
- Pseudonyms will be used at all times when working with the data gained form the participant.
- A private office space, with a separate entrance from the rest of the school, will be used for the interviews.
- Some of the topics that will be discussed during the interviews can be sensitive and might provoke emotional responses from the participant.
- It is possible that a participant might disclose information that might require the research student to refer the participant for either emotional or academic support.
- Arrangements have been made with the clinical psychologist, who is employed full-time by the school that the participants can talk to her if they feel it is necessary.

4. POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

The results of this study can provide a better understanding of what the needs are for adolescent girls with ADHD in a mainstream school. The information that is gained can be used to inform intervention strategies in order to support adolescent girls who are diagnosed with ADHD. The participant herself will benefit from this research because the information can also be communicated to the teachers of the school who in turn can implement strategies in the classroom to support these girls.

Not only will the information gained from this research add value to the direct environment in which the participant finds herself, but it will also add value to the wider society. Up to date there is very little information on how the adolescent girls with ADHD experience their environment. Information from this study can inform the wider research around ADHD as well as education policies and school practices in order to accommodate these girls.

The information from the study will be discussed with your daughter afterwards in an informal discussion.

5. PAYMENT FOR PARTICIPATION

Participation in this research is voluntary and therefore the participants will not receive any form of remuneration.

6. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with your daughter will remain confidential. The following measures have been put in place to ensure confidentiality:

- It is your daughter's choice whether she wants to participate in this study or not.
- You will be allowed to withdraw your daughter from the study at any time if circumstances necessitate it.
- Your daughter will be allowed to withdraw from the study at any time without any consequences.
- Your daughter does not have to answer any questions that she does not want to.
- Information can only be disclosed with your daughter's permission or as required by law.
- All interviews will be recorded and your daughter has the right to review or edit the recordings any time at her request.
- Photos will be taken of your daughter's box and its content for research purposes. Your daughter will be asked for permission to take these photos and she has the right to withhold certain items if she wishes to do so.

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- All data will be saved on the research student's personal computer which is secured with a password.
- The recordings will be downloaded onto the student's computer from where it will be transcribed by the research student herself. As soon as the transcriptions are completed, the recordings will be erased.
- The results of the study will be published in the student's thesis and confidentiality will be maintained in the publication by means of using pseudonyms for all participants.
- No one, except for the research student and her supervisor, will have access to the data. Information will be released to the student's supervisor, Professor Estelle Swart, who is affiliated with the Faculty of Educational Psychology at Stellenbosch University. Some of the transcribed information will be showed to the supervisor for the purpose to assist the student when data is interpreted and conclusions have to be made in order to ensure accuracy of results.

7. IDENTIFICATION OF INVESTIGATORS

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

Principal Investigator:

Supervisor: Prof.

8. RIGHTS OF RESEARCH PARTICIPANTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research participant, contact Ms [] at the Division for Research Development.

* ***If you agree to your daughter participating in the study, please sign on the next page.***

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SIGNATURE OF PARENT(S)/GUARDIAN(S)

The information above was described to me/us by [redacted]. An opportunity was given for me/us to ask questions and these questions were answered to my/our satisfaction.

I/we hereby consent that my daughter, ____, may participate in the study that focuses on exploring the understanding of adolescent girls with ADHD that will occur from 19 August 2013 to 27 September 2013. I/we have been given a copy of this form.

____________________________________ ____________________________________

Name of father/guardian **Name of mother/guardian**

____________________________________ ____________________________________

Signature of father/guardian **Signature of mother/guardian**

____________________________________ ____________________________________

Date **Date**

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to ____________________ [*name of the participant]* and/or her parent(s)/guardian(s). They were encouraged and given ample time to ask me any questions.

____________________________________ ____________________________________

Name of Investigator **Signature of Investigator**

____

Date

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STELLENBOSCH UNIVERSITEIT
TOESTEMMING TOT DEELNAME IN NAVORSING

Understanding the experiences of adolescent girls with ADHD: A Case Study

U dogter, _______________________________________, is versoek om deel te neem in 'n navorsingstudie wat gelei word deur [redacted], 'n meesterstudent aan die Fakulteit van Opvoedkundige Sielkunde by Stellenbosch Universiteit. Die resultate van hierdie studie sal 'n waardevolle bydrae lewer tot 'n navorsingstesis. U dogter is geselekteer vir hierdie studie weens haar diagnose van ATHV en dat sy aan die kriteria vir hierdie studie voldoen.

1. DOEL VAN DIE STUDIE

Die doel van hierdie studie is om die ervaringe van tienermeisies, wie gediagnoseer is met ATHV, te verken om sodoende 'n beter verstaan te ontwikkel van hoe die simptome hulle in verskeie areas van hul funksionering affekteer. Die areas waarop daar gefokus sal word is akademiese prestasie, interpersoonlike verhoudings met portuurgroep en familie.

2. PROSEDURE

Die aantal deelnemers sal bestaan uit 7 tienermeisies wie almal by dieselfde sekondêre hoofstroomskool ingeskryf is. Sou u dogter instem om deel te wees van hierdie studie, sal die volgende van haar versoek word:

- Bywoning van 4 individuele onderhoude oor 'n tydperk van 4 agtereenvolgende weke. Elke onderhoud sal 45-60 minute duur en sal opgeneem word. Daar sal slegs een onderhoud per week plaasvind en die dag en tyd sal onderhandel word.
- Bywoning van 'n groepsbespreking tydens die 5de week van die studie. Hierdie bespreking sal 60-90 minute duur en sal ook opgeneem word.
- Alle onderhoude sal plaasvind in die beradingskantore van die skool.
- Gedetailleerde instruksies sal aan u dogter voorsien word ter voorbereiding vir elke onderhoud.
- Persoonlike dokumente sal geraadpleeg word ten einde sekere inligting te verifieer.

3. POTENTIëLE RISIKO'S EN ONGEMAK

Reëlings sal getref word om die volgende moontlike risiko's aan te spreek:

- Deelnemer se besige program en die beperkte tyd wat sy beskikbaar het om deel te kan neem in hierdie studie.

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- Onderhoude sal een maal per week gevoer word op ‘n dag en tyd wat die deelnemer pas.
- Deelnemer se identiteit sal te alle tye konfidensïeel gehou word.
- ‘n Skuilnaam sal te alle tye gebruik word tydens data-insameling en waar die deelnemer se identiteit ter sprake is.
- ‘n Privaat kantoor, met ‘n ingang apart van die hoofingang van die skool, sal gebruik word vir alle onderhoude.
- Sommige van die onderwerpe wat bespreek sal word gedurende die onderhoude mag sensitief wees en moontlike emosionele reaksies van die deelnemer ontlok.
- Dit is moontlik dat die deelnemer inligting mag deel waar dit van die navorser vereis mag word om die deelnemer vir emosionele of akademiese ondersteuning te verwys.
- Reëlings is met die kliniese sielkundige, wie voltyds deur die skool aangestel is, getref dat die deelnemer met haar kan praat indien sy so sou voel.

4. POTENSIëLE VOORDELE VIR DEELNEMERS EN/OF DIE GEMEENSKAP

Die bevindinge van hierdie studie kan meer inligting verskaf in terme van die behoeftes van tienermeisies met ATHV in ‘n hoofstroomskool. Die verkrygde inligting kan gebruik word om intervensiestrategieë in plek te stel ten einde tienermeisies met ATHV te ondersteun. Die deelnemers self kan hieruit voordeel trek deurdat inligting gekommunikeer kan word aan die onderwysers van die skool om so strategieë in die klaskamer te implimenteer en dus hierdie leerders te ondersteun.

Nie net sal die verkrygde inligting waarde toevoeg tot die direkte omgewing waarin die deelnemer daagliks funksioneer nie, maar sal dit ook waarde toevoeg tot die wyer gemeenskap. Tot op hede is daar baie min inligting oor die ervarings van tienermeisies met ATHV. Die inligting van hierdie studie kan verdere navorsing rondom ATHV inlig en selfs onderwysbeleide en skoolpraktyke inlig ten einde hierdie meisies beter te ondersteun.

Die bevindinge van hierdie studie sal later, tydens ‘n informele bespreking, met u dogter bespreek word.

5. VERGOEDING VIR DEELNAME

Deelname aan hierdie studie is vrywillig en dus sal deelnemers geen vergoeding ontvang nie.

6. KONFIDENSIALITEIT

Alle inligting verkry tydens hierdie studie, wat verband hou met u dogter se identiteit, sal konfidensïeel hanteer word. Die volgende maatstawwe is in plek gestel om konfidensialiteit te verseker:

- Dit is u dogter se keuse of sy wil deelneem aan hierdie studie of nie.
- U het die vryheid om u dogter op enige stadium tydens die studie te onttrek sou omstandighede dit verlang.
- U dogter sal toegelaat word om op enige stadium tydens die studie te onttrek sonder enige nagevolge.
- U dogter hoef onder geen omstandighede enige vrae te beantwoord as sy nie wil nie.
- Inligting mag slegs gedeel word indien u dogter sou toestemming gee of wanneer dit vereis word deur die gereg.

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- Alle onderhoude sal opgeneem word en u dogter het die reg om enige tyd, op haar versoek, na die opnames te luister
- Foto's sal geneem word van u dogter se "realiteitsboks" asook van die inhoud vir navorsingsdoeleindes. U dogter se toestemming sal versoek word om hierdie foto's te neem en sy het die reg om van die items te onttrek as sy so wil doen.
- Alle data sal op die navorser se persoonlike rekenaar gestoor word. Die rekenaar word beskerm met 'n wagwoord.
- Die opnames sal op die navorser se rekenaar gestoor word van waar dit getranskribeer sal word deur die navorser self. Sodra die transkripsies voltooi is, sal die opnames vanaf die rekenaar uitgevee word.
- Die bevindinge van die studie sal gepubliseer word in 'n navorsingstesis en vertroulikheid sal te alle tye gehandhaaf word deur van skuilname, vir alle deelnemers, gebruik te maak.
- Niemand, behalwe die navorser self en haar supervisor, sal toegang hê tot die data nie. Inligting sal gedeel word met die navorser se supervisor, Professor Estelle Swart, wie geaffilieerd is met die Fakulteit van Opvoedkundige Sielkunde by Stellenbosch Universiteit. Inligting sal met die supervisor gedeel word met die doel om die navorser te ondersteun om die data te interpreteer en tot 'n akkurate gevolgtrekking te kom om sodoende akkurate bevindinge te maak.

7. BESONDERHEDE VAN DIE NAVORSERS

Indien u enige vrae het, of verdere inligting verlang aangaande die studie, kan u die volgende persone kontak:

Hoofnavorser:

Supervisor: Prof.

8. REGTE VAN DEELNEMERS

U het die reg om u toestemming tot deelname aan hierdie studie ter enige tyd te onttrek en deelname te staak sonder enige gevolge. Geen wetlike eise, regte of middels word kwytgeskel as gevolg van u deelname in die studie nie. Indien u enige vrae het aangaande u regte as 'n deelnemer, kontak Me. ( ) by die Afdeling Navorsingsontwikkeling.

* ***Indien u toestemming gee dat u dogter mag deel neem aan hierdie studie, sal dit waardeer word as u die volgende bladsy kan invul en teken.***

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HANDTEKENING VAN OUER(S)/VOOG(DE)

Die bogenoemde inligting is met my/ons bespreek deur ██████████. Geleentheid is gegun dat ek/ons vrae kon vra en die antwoorde daarop was bevredigend.

Hiermee gee ek/ons toestemming dat my/ons dogter, ________________________________, mag deelneem aan hierdie studie wat fokus op die verkenning van tienermeisies met ATHV se ervaringe in 'n hoofstroomskool. Hierdie studie sal plaasvind vanaf 19 Augustus 2013 tot 27 September 2013. Ek/ons het 'n kopie van hierdie dokument ontvang.

______________________________	______________________________
Naam van Vader/Voog	**Naam van Moeder/Voog**
______________________________	______________________________
Handtekening van Vader/Voog	**Handtekening van Moeder/Voog**
______________________________	______________________________
Datum	**Datum**

HANDTEKENING VAN NAVORSER

Ek verklaar dat ek die inligting, soos aangebring in hierdie dokument, met ______________________________ en haar ouer(s)/voog(de) bespreek het. Geleentheid is aan hulle gebied om enige vrae te vrae.

______________________________	______________________________
Naam van Navorser	**Handtekening van Navorser**

____

Datum

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ADDENDUM G

ASSENT FORM FOR PARTICIPANTS (English and Afrikaans)

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STELLENBOSCH UNIVERSITY
ASSENT TO PARTICIPATE IN RESEARCH

TITLE OF THE RESEARCH PROJECT:

Understanding the experiences of adolescent girls with ADHD: A Case Study

RESEARCHER'S NAME(S):

ADDRESS:

CONTACT NUMBER:

What is RESEARCH?

Research is something we do to find new knowledge about the way things (and people) work. We use research projects or studies to help us find out more about certain things so that we can find better ways of helping people (children and adults) to live a better life.

What is this research project all about?

In this research project teenage girls, who have been diagnosed with ADHD, will be interviewed. The purpose of these interviews is to hear from these girls themselves how they experience ADHD and how it affects them in their school work, their friendships and their relationships with their family.

Why have I been invited to take part in this research project?

You have been invited to take part in this research project because you are a teenage girl who has been diagnosed with ADHD and will therefore be able to tell the researcher how you experience ADHD and how it affects you in your school work, friendships and relationships in your family.

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Who is doing the research?

My name is ██████████ and I am currently a Masters student in Educational Psychology at Stellenbosch University. I am also a teacher at a high school. I am doing this research project because I find ADHD very interesting, particularly amongst girls. As I am a teacher, I often find that teenage girls with ADHD struggle with various issues during their school career because so many people do not know of their diagnosis. By doing this research, I hope to hear from girls themselves how ADHD affects them in their daily life and how they have learnt to cope. This will serve as information which can in turn be used to help other teenage girls, and their teachers, how to cope better with their ADHD symptoms.

What will happen to me in this study?

This study will carry on over a 5 week period. You will be expected to meet with the researcher once a week for 5 sessions. The session will be once a week for 5 consecutive weeks. We will meet after school, at a time that is convenient for you, in the school's counselling office. You will receive a detailed description of what you will have to prepare for the next session. All the sessions will be recorded on a digital recorder.

Can anything bad happen to me?

By participating in this study you will not be exposed to any physical harm. However, the following has been considered:

- We might talk about things that can upset you.
- If that happens, it is your right to end the interview or phone someone that you would like to confide in.
- Arrangements have been made with the psychologist at your school that you can talk to her any time, if you prefer.
- The time and date of interviews will be negotiated to suit you. This way it will not interfere with your other school obligations.

Can anything good happen to me?

When you participate in this study, the information that will be gained from it can add value to your experience of school, friends and family. When we can understand what people in a certain situation go through, it is easier to adjust the environment to support them and for us to understand them. By understanding what teenage girls with ADHD experience every day of their lives, it is easier for teachers, friends and parents to understand them better. The information will help teachers and parents to adjust the environment in order to assist these girls in their school work and at home.

The coping strategies that will be shared in the group can also help other girls (and boys) with ADHD to cope with the pressure of high school and to assist them.

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Will anyone know I am in the study?

The results of this study will be made public for other people to read and learn from it. It is therefore very important that great care will be taken to keep your participation in this study confidential. In other words, to make sure that everything that is said during the sessions cannot be traced back to you. In order to do so, the following measurements will be made:

- A false name (pseudonym) will be used instead of your true name to protect your identity.
- All the recorded discussions will be put into written words (transcribed). Once that is completed the recordings will be deleted to ensure that nobody recognises your voice.
- All the sessions will take place in the counselling office at your school. You can use the side door so that no one will notice when you arrive or leave.
- My supervisor is the only other person who will know that you have participated in this study. Seeing that I am studying myself, my supervisor is the one who provides me with help and guidance.

Who can I talk to about the study?

If you require information or have any questions about this study you can contact:

Research student:	*or* WhatsApp	Supervisor: Prof.

What if I do not want to do this?

During the study:

- It is your choice whether you want to participate in this study or not.
- Your parent(s)/guardian(s) will be allowed to withdraw you from the study at any time if circumstances necessitate it.
- You will be allowed to withdraw from the study at any time without any consequences.
- You do not have to answer any questions that you do not want to.
- Information can only be disclosed when you give permission for me to do so or if required by law.
- All interviews will be recorded and you have the right to review or edit the recordings any time at your request.
- Photos will be taken of your "reality box" and its content for research purposes. You have the right to give permission to me to take these photos and to withhold certain items if you wish to do so.
- All data will be saved on my personal computer which is secured with a password.
- The recordings will be downloaded onto my computer from where it will be transcribed by me. As soon as the transcriptions are completed, the recordings will be erased.

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- The results of the study will be published in my thesis and confidentiality will be maintained in the publication by using pseudonyms.

Do you understand this research study and are you willing to take part in it? | **YES** | **NO** |

Has the researcher answered all your questions? | **YES** | **NO** |

Do you understand that you can pull out of the study at any time? | **YES** | **NO** |

* ***If you agree to participate in the study, please sign below.***

SIGNATURE OF PARTICIPANT

The information above was described to me by [redacted]. An opportunity was given for me to ask questions and these questions were answered to my satisfaction.

I hereby agree that I, ______________________________________, will participate in the study that focuses on exploring the understanding of adolescent girls with ADHD that will occur from 19 August 2013 to 27 September 2013. I have been given a copy of this form.

________________________________ ________________________________

Signature of Participant **Date**

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to ___________________________

[*name of the participant].* She was encouraged and given ample time to ask me any questions.

________________________________ ________________________________

Name of Investigator **Signature of Investigator**

____

Date

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STELLENBOSCH UNIVERSITEIT
INSTEMMING TOT DEELNAME IN NAVORSING

TITEL VAN NAVORSINGSTUDIE:

Understanding the experiences of adolescent girls with ADHD: A Case Study

NAAM VAN NAVORSER(S):

ADRES:

KONTAK NOMMER:

Wat is NAVORSING?

Navorsing is iets wat ons doen om sodoende nuwe kennis op te doen om dinge (en mense) beter te verstaan. Ons gebruik navorsingsprojekte of –studies om ons te help om meer uit te vind sodat ons beter maniere kan vind om mense (kinders en volwassenes) te help om 'n beter lewe te lei.

Wat behels hierdie navorsingsprojek?

Tydens hierdie studie gaan daar onderhoude met tienermeisies, wie gediagnoseer is met ATHV, gevoer word. Die doel van hierdie onderhoude is om van hierdie meisies self te hoor hoe hulle ATHV ervaar en hoe dit hulle akademiese prestasie, vriendskappe en verhoudings met familie affekteer.

Hoekom word ek uitgenooi om deel te wees van hierdie navorsingstudie?

Jy word uitgenooi om deel te wees van hierdie navorsingstudie omdat jy 'n tienermeisie is wie met ATHV gediagnoseer is. Dus sal jy daartoe in staat wees om vir die navorser te kan vertel

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hoe jy ATHV ervaar en hoe dit jou akademiese prestasies, vriendskappe en verhoudings met familie affekteer.

Wie gaan hierdie navorsing doen?

My naam is [redacted] en ek is tans 'n meesterstudent aan die Fakulteit Opvoedkundige Sielkunde by die Stellenbosch Universiteit. Ek is ook 'n onderwyseres by 'n hoërskool. Die rede vir hierdie navorsingstudie is omdat ek ATHV baie interessant vind, veral onder meisies. As onderwyseres vind ek gereeld dat tienermeisies verskeie probleme ervaar tydens hul skoolloopbaan omdat so min mense waarlik bewus is van hierdie meisies se diagnose. Deur hierdie navorsing te doen, hoop ek om van hierdie meisies self te hoor watter effek ATHV het in hul daaglikse lewe en hoe hulle geleer het om daarmee te deel. Dit sal dien as inligting wat weer gebruik kan word om ander meisies, en hul onderwysers en familie, te help om beter ondersteuning te bied en die simptome van ATHV beter te kan hanteer.

Wat word van my verwag tydens hierdie navorsingsprojek?

Hierdie studie sal oor 'n periode van 5 weke duur. Daar sal van jou verwag word om een maal per week met die navorser te ontmoet. Die sessies sal plaasvind een maal per week vir 5 opeenvolgende weke. Ons sal na skool ontmoet, op 'n tyd wat jou pas, in die skool se beradingskantore. Jy sal elke week detailleerde instruksies ontvang sodat jy jouself kan voorberei vir die volgende sessie. Al die sessies sal opgeneem word op 'n digitale bandopnemer.

Kan enige iets negatief met my gebeur?

Jy sal nie aan enige fisies gevare blootgestel word tydens hierdie studie nie. Alhoewel, die volgende word ingedagte gehou:

- Ons mag dalk oor iets praat wat jou kan ontstel.
- Indien dit sou gebeur, is dit jou reg om die onderhoud te stop of om iemand te kontak wie jy vertrou en met wie jy meer gemaklik voel.
- Reëlings is egter getref met die kliniese sielkundige by jou skool om beskikbaar te wees sou jy verkies om eerder met haar te gesels.
- Die tyd en dag van die onderhoude sal met jou onderhandel word sodat dit jou program pas. Die rede hiervoor is sodat dit nie met jou ander buitemuurse verpligtinge inmeng nie.

Kan enige iets positief met my gebeur?

Deur deel te neem aan hierdie studie, kan die ingewinde inligting waarde toevoeg tot jou ervaring van skool, vriende en familie. Wanneer daar 'n beter verstaan is oor wat mense in 'n sekere situasie deurgaan, is dit makliker om aanpassings in die omgewing te maak om sodoende beter ondersteuning aan hulle te bied en ook om hulle beter te verstaan. Deur 'n beter begrip te hê vir die ervarings van tienermeisies met ATHV en hoe dit hul daaglikse lewe affekteer, is dit vir onderwysers, vriende en familie makliker om hulle te verstaan. Hierdie inligting sal onderwysers en familie help om die nodige aanpassings in die omgewing, en hul sieninge, te maak om sodoende hierdie meisies beter te ondersteun in die skool en by die huis.

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Deur die strategieë, wat jy al vir jouself aangeleer het, met die ander te deel kan dit ander meisies (en seuns) met dieselfde diagnose help om die druk van hoërskool en adolosensie te hanteer.

Sal enige iemand weet dat ek deel is van die studie?

Die bevindinge van hierdie studie sal aan die publiek beskikbaar gemaak word om te lees en daaruit te leer. Dus is dit baie belangrik dat deeglike sorg getref sal word om jou deelname konfidensïeel te hou. Met ander woorde, om seker te maak dat alles wat tydens die sessies gedeel word nie aan jou gekoppel kan word nie. Om konfidensialiteit te verseker, is die volgende maatstawwe in plek gestel:

- 'n Skuilnaam sal gebruik word om jou identiteit te beskerm.
- Al die opnames sal in woorde omgesit word (transkripsies). Sodra hierdie transkripsies voltooi is, sal die opnames tot niet gemaak word om sodoende te verseker dat niemand jou stem kan herken nie.
- Al die onderhoude sal plaasvind in die beradingskantore van jou skool. Jy kan die sydeur gebruik sodat niemand sal sien wanneer jy by die kantoor opdaag of dit verlaat nie.
- My supervisor is die enigste ander persoon wie sal weet dat jy aan die studie deelgeneem het. Aangesien ek self nog studeer, is my supervisor daarvoor verantwoordelik om vir my leiding en hulp te bied.

Met wie kan ek gesels oor hierdie studie?

Indien jy eninge verdere inligting sou verlang of vrae het oor die studie, kan jy die volgende persone skakel:

Hoofnavorser: [redacted] [redacted] *of* WhatsApp [redacted]	Supervisor: Prof. [redacted] [redacted] [redacted]

Wat kan ek doen as ek nie deel wil wees van die studie nie?

Gedurende die studie:

- Dit is jou keuse of jy wil deelneem aan hierdie studie of nie.
- Jou ouer(s)/voog(de) mag jou enige tyd tydens die studie onttrek sou omstandghede dit vereis.
- Jy sal toegelaat word om enige tyd tydens die studie te onttrek sonder enige gevolge.
- Jy hoef nie enige vrae te beantwoord as jy nie wil nie.
- Inligting kan slegs met ander gedeel word as jy toestemming gee of as dit wetlik vereis word.
- Alle onderhoude sal opgeneem word en jy het die reg om enige tyd te versoek om daarna te luister.

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- Foto's sal geneem word van jou "realiteitsboks" en die inhoud daarvan vir navorsingsdoeleindes. Jy het die reg om toestemming te gee en om enige items uit te haal as jy nie wil hê dat foto's daarvan geneem word nie.
- Alle data sal op my persoonlike rekenaar gestoor word. Toegang tot die rekenaar word met 'n wagwoord beskerm.
- Die opnames sal op my rekenaar gestoor word en van daar sal ek, persoonlik, die transkripsies doen. Sodra die transkripsies voltooi is, sal die opnames van die rekenaar afgevee word.
- Die bevindinge van die studie sal in my navorsingstesis gepubliseer word en konfidensialiteit sal behoue bly deur gebruik te maak van skuilname.

Verstaan jy waaroor die navorsingstudie gaan en is jy gewillig om deel te wees van die studie?	**JA**	**NEE**
Het die navorser al jou vrae beantwoord?	**JA**	**NEE**
Verstaan jy dat jy enige tyd tydens die studie mag onttrek?	**JA**	**NEE**

* ***Indien jy instem om deel te wees van die studie, sal dit waardeer word as die inligting hieronder sal invul en teken.***

HANDTEKENING VAN DEELNEMER

Die bogenoemde inligting is aan my verduidelik deur ██████. Geleentheid is aan my gebied om vrae te vra en die antwoorde was bevredigend.

Hiermee stem ek, ____, in om deel te wees van die studie wat fokus op die verkenning van tienermeisies met ATHV se ervarings in 'n hoofstroomskool. Hierdie studie sal plaasvind vanaf 15 Julie 2013 tot 23 Augustus 2013. Ek het 'n kopie van hierdie dokument ontvang

_____________________________ _____________________________

Handtekening van Deelnemer **Datum**

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HANDTEKENING VAN NAVORSER

Ek verklaar dat ek die inligting, soos aangebring in hierdie dokument, met ___________________________________ bespreek het. Geleentheid is aan haar gebied om enige vrae te vrae.

________________________________ ________________________________

Naam van Navorser **Handtekening van Navorser**

____

Datum

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ADDENDUM H

INDIVIDUAL INTERVIEW: INTERVIEW GUIDE NO. 1 - 4

INTERVIEW GUIDE NO. 1

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Understanding the experiences of adolescent girls with ADHD: A Case Study

A. Background information…

Firstly, I would like to get to know you a bit better. Tell me about yourself, your family and friends.

1. Self

- Name
- Age
- Grade
- Place of birth
- Primary school
- Interests or hobbies
- Sports or cultural activities

2. Family

- Parents ([4]*marital status*)
- Siblings (*how many, ages*)
- (*If parents are divorced or separated, with who do you stay*)

3. Friends

- Number of friends
- Ages and grades
- Attending same school and class
- In the same primary school

B. Own experience of ADHD

As we've discussed earlier, we will discuss your experience of ADHD in depth during the next three interviews. But just for some background information, explain to me your perspective on your diagnosis…

4. Diagnosis

- When diagnosed
- How do you understand ADHD? (*What is it?*)

[4] Notes for the researcher is written in italics.

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- What type of ADHD (*Explain…*)
- Medication

5. Symtoms

Can you explain to me how ADHD feels to you?

- Physically (*Always rushed, always behind the rest, exhausting, no effect etc*)
- Emotionally (*Anxiety, low self-worth, no effect, makes me feel special etc*)

6. Own perspective

- What did you think or feel when you heard you have ADHD?
- What do you think or feel now about it? (*If indicated too young to remember*)
- See it as part of you as (*name*) or something separate from you?
- Do you see ADHD as a strength or weakness? (*Explain…*)
- How do you feel about taking the medication? (*To your benefit or not?*)
- How does the medication make you feel? (*Physically, i.e. concentrate, loss of appetite; emotionally, i.e. loser, failure, more confidence*)

C. "Reality boxes"

You have decorated the outside of your "reality box" according to how you think people perceive you as having ADHD. Would you please explain to me what your box represents…

7. "reality box"

- Name for "reality box"
- Reason for chosen name

8. Appearance of box

- Meaning of different decorations (*Probe according to what participant tells*)
- Can you give me examples?

D. Arrangements

We will see each other again in a week's time. When will it suite you?

9. Date and time

10. Check that participant understands instructions for next week's interview.

E. Conclusion

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That brings us to the end of our first interview…

11. Do you have any further questions?

12. How did you experience this interview? Any recommendations?

13. Would you mind if I take photos of your "reality box"?

14. Thank you very much for your cooperation and sharing personal things with me.

15. Would you like to listen to the recording?

16. Will it be in order if I contact you if necessary?

INTERVIEW GUIDE NO. 2

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Understanding the experiences of adolescent girls with ADHD: A Case Study

A. Experience of ADHD symptoms on scholastic performance

You were asked to collect objects that represent your experience of ADHD specifically in your scholastic performance. Can you show me the objects that you have collected and explain to me what it represents?

1. Positive effects

- Tell me more…
- Example where this has happened

2. Negative effects

- Tell me more…
- Example where this has happened

* *(Themes to explore if not yet discussed in A…)*

B. Experience of school

Tell me how you feel about school in general…

3. Enjoy it or not?

4. What do you enjoy? Why?

C. Classroom and teachers.

5. If I was your teacher, how will I perceive you?

- Quiet, talkative, impulsive or disruptive?
- Listening in class and keeping up with the work? or
- Day dreaming and struggling to concentrate?
- Constantly forgetting books and homework at home?
- Disorganized or not?

6. How do experience your class environment and teachers?

- Class environment boring or stimulating? (*Explain…*)
- Teachers' method of teaching? (*What do you think will work for you?*)
- Liked or disliked by the teachers? (*Explain…*)
- Are any concessions made for you during assessments due to your ADHD?

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7. How does it make you feel when you are in class?

- Feeling that you cannot keep up?
- Always getting into trouble.
- Always disappearing in class because you're quiet.
- No effect.
- Anxious.
- Not good enough.

8. Tasks and projects

Tell me how the ADHD affects the way you do tasks and projects.

- Feel that you have to work harder than rest of class?
- Time management (*Use dairy, procrastinate, parents constantly checking up*).
- Disorganised.
- Always hand in on time or misses due dates.

D. Coping strategies

Listening to you, I can hear that you've learnt ways to cope with ADHD. Tell me more about…

9. Coping with school work

- Managing symptoms mentioned in nr. 8

10. Teacher support

- What are teachers doing to help?
- What do you suggest they can do to support adolescents with ADHD?

E. Arrangements

We will see each other again in a week's time. When will it suite you?

11. Date and time

12. Check that participant understands instructions for next week's interview.

F. Conclusion

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That brings us to the end of our second interview…

12. **Do you have any further questions?**
13. **How did you experience this interview? Any recommendations?**
14. **Can I take photos of your collection? Is there anything that you prefer I don't photograph?**
15. **Thank you very much for your cooperation and sharing personal things with me.**
16. **Would you like to listen to the recording?**
17. **Will it be in order if I contact you if necessary?**

INTERVIEW GUIDE NO. 3

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Understanding the experiences of adolescent girls with ADHD: A Case Study

A. Experience of ADHD symptoms on peer relationships

You were asked to collect objects that represent your experience of ADHD specifically in your relationships with friends. Can you show me the objects that you have collected and explain to me what it represents?

1. Positive experiences

- Tell me more…
- Example where this has happened

2. Negative experiences

- Tell me more…
- Example where this has happened

(Themes to explore if not yet discussed in A…)

B. Experiences of friendships

3. Friendship stability

Can you tell me how about the friendships and peer relationships that you've had over the past years until now.

- Lots / not a lot of friends
- Friendships change constantly / same friends since childhood

C. Effect of ADHD on your behavior

4. Symptoms of ADHD

If I was one of your friends or classmate, how will I perceive you… (*Give examples*)

- Drawn back, shy, talkative, isolation from social circles etc.
- Impulsive
- Emotionally reactive (Outbursts, cry easily, say things without thinking about it first etc.)
- Aggressive, short tempered, frustrated etc.
- Peer pressure (*give in easily or not*)

D. Peer and friend attitude towards you

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5. Friends' behavior

Explain to me how your friends and peers react towards you because of your behavior that is influenced by ADHD…(*Give examples*)

- Good or bad influence
- Acceptance
- Bullying
- Rejection

E. Coping strategies

Listening to you, I can hear that you've learnt ways to cope with ADHD. Tell me more about…

6. Coping with friendships

- Provide examples from 4 and 5.

7. Support from friends

- What are your friends doing to help?
- What do you suggest they can do to support adolescents with ADHD?

8. Arrangements

We will see each other again in a week's time. When will it suite you?

9. Date and time

10. Check that participant understands instructions for next week's interview.

11. Conclusion

That brings us to the end of our third interview…

12. Do you have any further questions?

13. How did you experience this interview? Any recommendations?

14. Can I take photos of your collection? Is there anything that you prefer I don't photograph?

15. Thank you very much for your cooperation and sharing personal things with me.

16. Would you like to listen to the recording?

17. Will it be in order if I contact you if necessary?

INTERVIEW GUIDE NO. 4

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Understanding the experiences of adolescent girls with ADHD: A Case Study

A. Experience of ADHD symptoms on family relationships

You were asked to collect objects that represent your experience of ADHD specifically in your relationships with family. Can you show me the objects that you have collected and explain to me what it represents?

1. Positive experiences

- Tell me more…
- Example where this has happened

2. Negative experiences

- Tell me more…
- Example where this has happened

(Themes to explore if not yet discussed in A…)

B. Effect of ADHD on your behavior

3. Symptoms of ADHD

If I was one of your parents, how will I perceive you… (*Give examples*)

- Drawn back, shy, talkative, isolated etc.
- Impulsive
- Emotionally reactive (*Outbursts, cry easily, say things without thinking about it first, conflict or fights etc.*)
- Aggressive, short tempered, frustrated etc.
- What causes the most stress/fights between you and your parents? (*School work, forgetfulness, impulsivity etc*)

C. Family members' attitude towards you

4. Parent behavior

Explain to me how your parents react towards you because of your behavior that is influenced by ADHD…(*Give examples*)

- Always complaining
- Acceptance

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- Irritable
- Patient / impatient

5. Sibling behavior

Describe to me how the ADHD influences your relationships with your siblings.

- No effect
- Supportive
- Conflict
- Does any of them have ADHD?

D. Coping strategies

6. Coping with family

- Provide examples mentioned in 3, 4 and 5.

7. Parent and sibling support

- What is your family doing to help?
- What do you suggest they can do to support adolescents with ADHD?

8. Arrangements

This was the last individual interview. Next time we will meet as a group where you will share your collection with everyone. Are you comfortable with that?

9. Date and time

10. Check that participant understands instructions for next week's interview.

11. Conclusion

That brings us to the end of our last individual interview…

12. Do you have any further questions?

13. How did you experience this interview? Any recommendations?

14. Can I take photos of your collection? Is there anything that you prefer I don't photograph?

15. Thank you very much for your cooperation and sharing personal things with me.

16. Would you like to listen to the recording?

17. Will it be in order if I contact you if necessary?

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EXCERPT FROM TRANSCRIBTION OF AN INDIVIDUAL FOCUS INTERVIEW

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Faith: I like it. I love having ADHD. The only down side is having to take a pill for it every day. But I like it. I am happy with it.

Researcher: Cool and tell me, knowing what ADHD can do to friendships, how have you learnt to deal with it?

Faith: It does not bug me at all.

Researcher: So there is nothing that you had to teach yourself or that you have to be concious about when it comes to ADHD symptoms and friendships?

Faith: No I really do not know what it would do to a friendship because I am basically just myself and they accept me for who I am. I have got a lot of friends but I have like five or six best friends. I have got a few close friends that I put a lot of effort into and then I have like friends that we hang out and we go to the movies sometimes. And like we see each other occasionally and then I have acquaintances. My close acquaintances are like the coolest people on earth. So I know a lot of people. Like a lot.

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ADDENDUM J

FOCUS GROUP INTERVIEW: INTERVIEW GUIDE

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INTERVIEW GUIDE NO. 5

Understanding the experiences of adolescent girls with ADHD: A Case Study

A. Introduction

As you know, today we are meeting as group where all of you participated in my study. When meeting in a group, it can be a very positive experience where we can learn from each other and also share something (in this case ADHD) that you all have in common. To make this possible, it is important that you take note of following:

B. Confidentiality

C. Although everyone is diagnosed with ADHD, each person has a different experience of it. Therefore, RESPECT.

D. Agenda

- Share collections
- Share coping strategies
- Discuss intervention strategies
- Reflection and feedback

E. Focus group

1. Share collections

- Each participant gets an opportunity to share her collection

2. Share coping strategies

- Each participant shares 3 coping strategies she considers most important.

3. Intervention strategies

- Discussion on recommendations on what teachers, friends and peers can do as support.

4. Conclusion

That brings us to the end of our last individual interview…

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5. **Reflection and feedback**
   - After everyone has spoken, participants get an opportunity to share their experiences of the discussion (Constructive or not).
6. **Do you have any further questions?**
7. **What was your experience of last 6 weeks? Any recommendations?**
8. **Can I take photos of your collection? Is there anything that you prefer I don't photograph?**
9. **Thank you very much for your cooperation and sharing personal things with me.**
10. **Would you like to listen to the recording?**
11. **Arrange informal discussion to give feedback on findings.**
12. **Will it be in order if I contact you if necessary?**

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ADDENDUM K

EXCERPT FROM TRANSCRIPTION OF THE FOCUS GROUP INTERVIEW

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Researcher: *And in the three areas that we spoke about: friends, school and family. Where does it affect you most?*

Ché: I think only in school. I think other than that it is only good for me. Except for school…it's just a little frustrating but it's not too bad.

Researcher: *How does it frustrate you?*

Ché: When I can't concentrate on one thing. I think I take very long to do things. I can't concentrate.

Anri: I think I am more lazy than not being able to concentrate.

Researcher: *Really?*

Anri: I can concentrate, I am just lazy. I would rather zone out in class. So I cause my own problems later. So I am lazier than having the ADD problem.

Kayla: Sometimes I'm like "I'm going to do this". An hour later, I don't feel like doing this.

Researcher: *Elana,for you?*

Elana: Soemtimes I like like when you can be creative but like with school work and the fights that start, then it's like "But why do I sit with this problem?" then I just think that every person has his own special…

Faith: Superpower!

Elana: ...superpower in life. So now mine is ADHD and I just have to cope with it.

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ADDENDUM L

EXCERPT FROM MY REFLECTIVE DAIRY

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7 October

I had the focus group interview today. How interesting it was! And tiring! Six of the seven participants agreed to take part in the group interview. One of the six participants did not arrive though (I guess she forgot). It was so interesting that when the girls met, the conversation starter was "are you on Ritalin or Concerta?" and "How much milligrams?" I found it astonishing that this topic was spoken about so freely as if they were talking about the weather. The interview started off chaotic as every participant wanted to talk and it ended up to be all of them speaking at the same time. The one participant specifically spoke excessively and tended to interrupt the others (characteristic of ADHD). Being sensitive to a tense atmosphere, I myself started to feel anxious as I could see that this girl was starting to annoy the rest of the group and I was getting worried that I will not be able to gain valuable information as she didn't allow anyone else to finish a sentence. Fortunately I had a stuffed teddy bear in my office, so I decided to use the toy as a "right to speak"-object. It was decided that only the person holding the bear was allowed to speak. This worked much better, not 100%, but MUCH better. Eventually all the participants were able to share their experiences and it was nice to hear them leading the conversation as they were able to identify with each other. The girls' feedback regarding the actual research process was also very positive and it stood out to me that they appreciated the fact that they were being recognised as individuals with ADHD and that they were given the opportunity to consciously think about it and how it affects them. Interestingly enough they all said that it made them realize how valuable their friends and family are to them.

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ADDENDUM M

DIGITAL EVIDENCE OF THE CODING PROCESS

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Image M.1: Step 1: *In Vivo* Coding

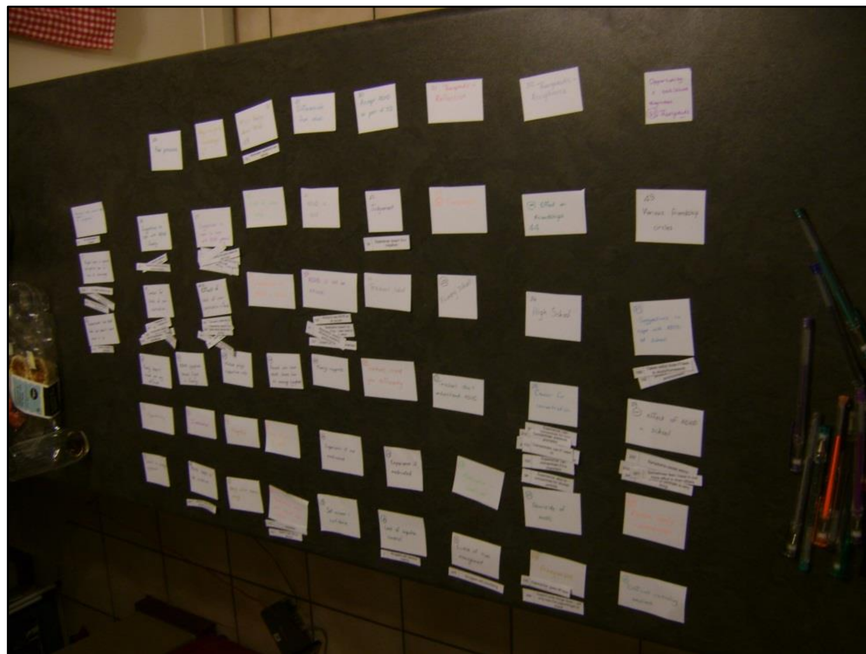
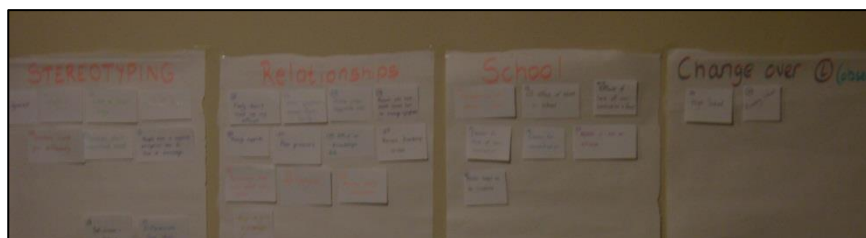


Image M.2: Step 2: Categorising



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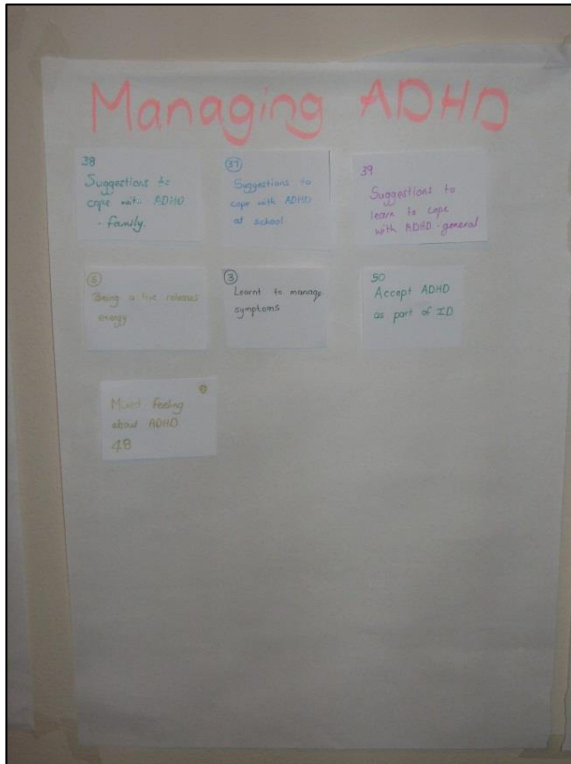

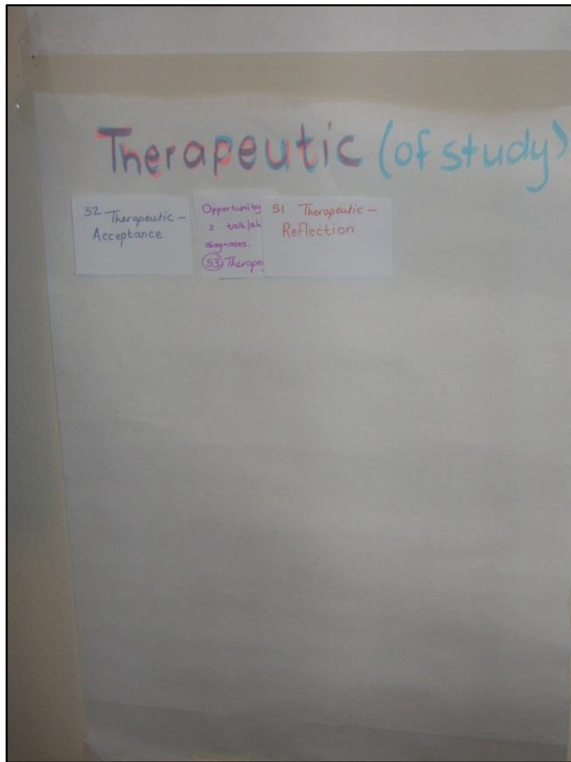

Images M.3-M.9: Step 3: Topics