

UNIVERSITY OF THE WESTERN CAPE

Faculty of Community and Health Sciences

Department of Psychology

Title: The exploration of the management strategies used by educators working with learners presenting with Attention Deficit Hyperactivity Disorder (ADHD) symptoms in mainstream schools in the Western Cape.

Student Name: Gina Stockigt (3218305)

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Department: Psychology



Supervisor: Dr Athena Pedro

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ABSTRACT

The inclusive education system in South Africa is one that accepts children with many types of barriers to learning, whether these are physical, emotional or cognitive in nature. In 2001, the Department of Education published the White Paper 6 in order to address inclusive education in the South African context over a time frame of 20 years. It has been 15 years since the White Paper 6 was published, and many South African educators still face the same challenges as they did at the start of the Inclusive Education System. Managing children with barriers to learning comes with many challenges and uncertainties, and with the high prevalence of children diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) globally, there is a strong need to understand what the condition entails and how to manage it effectively. A study like this is imperative in order to explore management strategies used by Grade 1 educators when working with learners presenting with Attention Deficit Hyperactivity Disorder symptoms in mainstream schools in the Western Cape. A further aim is to explore the support structures currently available to these educators as well as the support required by these educators. The study also aims to understand the challenges facing educators in these settings as there are limited research studies and literature available which focus on how to apply the inclusive education policies that exist in South Africa. The study used bio-ecological systems theory as a theoretical framework. A qualitative approach was used to conduct the study, including semi-structured individual interviews and data that was analysed by thematic analysis. A total of four local schools were included in the study, comprising of twelve interviews with Grade 1 educators from mainstream schools based in the Western Cape. The findings were as follows: many educators felt that they did not receive enough training on Attention Deficit Hyperactivity Disorder, therefore lacking knowledge on how to apply management strategies to address this. Managing a diverse range of learners, lack of resources, lack of parental involvement, lack of assistance in the classroom, as well as distracted and disorganised children posed as challenges for educators working with learners presenting with Attention Deficit Hyperactivity Disorder symptoms.

Some educators felt that class sizes were too big; helping non-English learners who displayed symptoms of Attention Deficit Hyperactivity Disorder to reach their full potential was challenging; and covering all the content in the Curriculum Assessment Policy Statements (CAPS) was overwhelming for some as it does not always allow space for learners who learn differently in the classroom. Educators teaching in lower-income communities struggled with parental support and generally had fewer resources available to them. Not all of the participants received sufficient support from other professional health practitioners, principals, and support at various levels of the education system in the Western Cape and Department of Education.



DECLARATION

I declare that the current study *The exploration of the management strategies used by educators working with learners presenting with Attention Deficit Hyperactivity Disorder (ADHD) symptoms in mainstream schools in the Western Cape* is my own work. It has not been submitted before any degree or examination in any university, and that all the sources I have used have been indicated and acknowledged as complete references.

Gina Stockigt

March 2016



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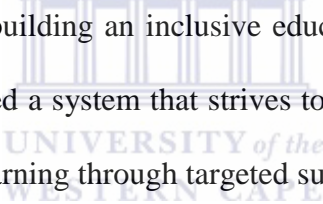
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CHAPTER 1

1.1 Background

According to extensive studies conducted by Polanczyk, De Lima and Horta (2007), the worldwide prevalence of Attention Deficit Hyperactivity Disorder (ADHD) in children under the age of 18 years is approximately 5, 2%. To date, data on the prevalence of ADHD in South Africa is limited, but it is estimated that approximately 4-5 % of children present with ADHD (Meyer, Eilertsen, & Sundet, 2004). ADHD is a syndrome of inattention, hyperactivity and impulsivity (American Psychiatric Association, 2013), and currently the most commonly diagnosed neurobiological-behavioural condition in children (Polanczyk et al., 2007).



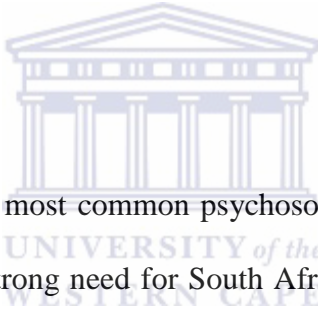
South Africa prides itself on building an inclusive education system and the Department of Basic Education (DBE) has developed a system that strives to facilitate the inclusion of vulnerable learners and reduce the barriers to learning through targeted support structures and mechanisms that improve the retention of learners in the education system (Department of Basic Education, 2011). The DBE acknowledges that all children can learn; it enables education structures, systems and methodologies to meet the needs of all children and is consistent with the key principles of the Convention on the Rights of the Child and the Convention on the Rights of Persons with Disability.

Classrooms within South African schools often contain a diverse range of children, both racially and culturally, who are supported and taught by educators. It is often a challenge to put inclusive education into practice due to the variety of needs of these learners, including the ADHD learners. Educators often struggle to meet the needs of learners with ADHD symptoms due to their lack of skills and the large number of learners present in classes (Marais & Meier, 2010).

In order for educators to manage these learners effectively and be able to accommodate the various needs that learners present within the classroom, they need to be fully informed about the different diversities that exist in the classroom (Decaires-Wagner & Picton, 2009).

This study will explore current management strategies used by Grade 1 educators in mainstream schools in the Western Cape working with learners presenting with ADHD symptoms. These strategies will help to determine how mainstream educators can be better assisted and supported with the necessary skills and competencies to effectively manage working with these learners. This will provide opportunities for quality education, help address barriers that lead to exclusion in the classroom and provide a more dignified society.

1.2 Rationale



With ADHD being one of the most common psychosocial childhood disorders in the world (Polanczyk et al., 2007), there is a strong need for South African educators to be well educated in this area, and to have a sufficient understanding of what it is and how to manage it effectively in the classroom. The likelihood of having several learners experiencing barriers to learning, including learners with ADHD in a class, is potentially high. This could place additional stress on educators who do not possess the appropriate skills and competencies needed to manage the diversities that exist in a classroom.

This study will explore current management strategies for ADHD in South African classrooms. This will provide opportunities to magnify possible strengths and weaknesses in the system and to look at how educators can be better equipped, educated and resourced in order to provide quality and fair education for all learners.

1.3 Aim and Objectives of the Study

1.3.1 Aims

This research study aimed to explore the current management strategies used by Grade 1 educators working with learners presenting with ADHD symptoms in mainstream schools in the Western Cape. A further aim was to identify the challenges these educators encountered in the classroom as well as the type of support currently available and further support required when working within the context of an Inclusive Education Framework. The management strategies refer to the efforts of the educators to accomplish goals and objectives through a course of action, to create and sustain a manageable class.



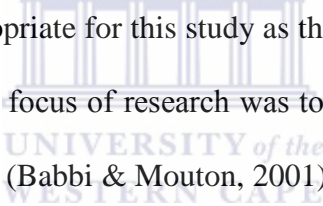
1.3.2 Objectives

The objectives of this study were as follows:

- To explore management strategies used by Grade 1 educators in the classroom working with learners presenting with ADHD symptoms.
- To identify the challenges these educators encounter in the classroom environment when working with learners presenting with ADHD symptoms.
- To explore the support currently available to these educators as well as the support required when working in the context of an Inclusive Education Framework.

1.4 Methodology

This study followed a qualitative approach. Qualitative methods are grounded in a philosophical position and strive to provide in-depth, personal descriptive accounts of phenomena in the world (Winter, 2000). Qualitative researchers therefore study phenomena in their natural setting and attempt to interpret these phenomena in terms of the meaning people bring to them. Qualitative research involves a vast range of interconnected methods, tools and techniques, using a variety of empirical materials (Denzin & Lincoln, 1994). These are necessary to help develop deeper meaning and understanding of how people perceive their social realities and describe moments and meanings in individuals' lives (Denzin & Lincoln, 1994). It therefore aims to produce detailed, rich and contextual data (Mason, 1996).



This form of inquiry was appropriate for this study as the primary aim of the study was to tap into the insider's perspective and the focus of research was to understand and describe, rather than explain and predict human behaviour (Babbi & Mouton, 2001). An additional focus was to identify, sort and analyse meaning according to the subjective perception, understanding and behaviour of the participants within their context (Ulin et al., 2002). Furthermore, the researcher took the social, cultural, political and physical environment of the participants into consideration to explore and interpret the link between these elements.

1.5 Definitions of terms

ADHD: According to the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (the DSM-5), ADHD (Attention Deficit Hyperactivity Disorder) is a disorder characterised by inattention, hyperactivity and impulsivity (American Psychiatric Association, 2013.)

Grade 1 educators/teachers: Educators that usually teach all the subjects in the curriculum to learners in grade 1.

Child development: Child development refers to the biological, psychological and emotional changes that occur in human beings between birth and the end of adolescence, as the individual progresses from dependency to increasing autonomy (William, 2011).

Bio-ecological Theory: The bio-ecological theory of development was formulated by Urie Bronfenbrenner and suggests that human development is a transactional process in which an individual's development is influenced by his or her interactions with various aspects and spheres of their environment (Bronfenbrenner & Morris, 1998).

Management Strategies: To coordinate the overall efforts of educators to accomplish goals and objectives through adopting a course of action in the classroom, while using available resources efficiently and effectively. This is achieved through analysis, decisions, and actions undertaken by the educator in order to create and sustain a manageable class.

Interventions: This is a planned set of goal oriented procedures that are systematic with explicit instruction aimed at teaching a specific set of skills and growth in an area of need. Interventions are designed to provide research-based support and improve performance relative to a specific, measurable goal. Interventions are implemented based on the type, level, and intensity of learner need (Howell, 2009).

Inclusive Education: This is based on a values system that welcomes and celebrates diversity arising from gender, nationality, race, language, social background, level of educational achievement and disability etc.

It involves changes and modifications in content, approaches, structures and strategies, with a common vision that covers all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate all children (UNESCO, 2009).

1.6 Layout of the thesis

Chapter 1: Introduction

This chapter provides a broad overview of the study. It describes the background, rationale and aims of the study. It briefly introduces ADHD and the management strategies used by educators working with learners presenting with ADHD symptoms in mainstream schools in the Western Cape.



Chapter 2: Literature Review

Chapter 2 focuses on the relevant literature which discusses the theoretical framework and the South African education system. The prevalence and characteristics of ADHD; assessment, treatment and management of ADHD; the challenges faced by foundation phase educators working with learners presenting with ADHD symptoms; how it is managed in the classroom, as well as the support that is available and support that is required by educators working with these children.

Chapter 3: Methodology

This chapter focuses on the method of conducting the research. Here attention is given to how the study was conducted which was based on the aims and objectives of the study.

The research design, research setting, participants, method of data collection, procedure, data analysis and ethics are taken into consideration. Also, confirmability, credibility, dependability, trustworthiness and reflexivity are explored.

Chapter 4: Findings

Chapter 4 presents the findings of the study.

Chapter 5: Discussion and recommendations

This chapter concludes the study with a discussion of the findings from the interviews conducted, integrated with the research previously identified in the Literature Review. Limitations of the study are explored and concluded with recommendations for further study.



1.7 Conclusion

This chapter outlines the background, rationale, aims and objectives of the study. A brief overview of the chosen research methodology is given. Key terms are explained and an overview of the layout of the study is discussed. The following chapter begins with a presentation of the theoretical framework that underpins the study as well as an in-depth literature review which will investigate the management strategies used by educators, the challenges these educators encounter in the classroom environment as well as the support available and support required when working within the context of an Inclusive Education Framework.

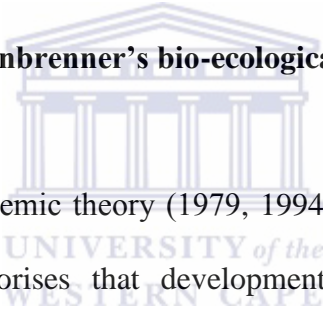
CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The literature review includes the theoretical framework of Bronfenbrenner and how the systems, specifically the mesosystem interacts and relates to the child's physical environment and social context. Information regarding the prevalence and characteristics of ADHD, the South African education system, assessment and treatment of ADHD, as well as classroom and behavioural management strategies that have proven to be effective are discussed. The challenges encountered in the classroom, as well as the support required are also discussed in this chapter.

2.2 Theoretical framework: Bronfenbrenner's bio-ecological systems theory



Urie Bronfenbrenner's ecosystemic theory (1979, 1994, 2005), more recently known as the bio-ecological systems theory, theorises that development is shaped by various interacting processes. The core theoretical principle of this model states that human development is shaped by forces from all the different systems interacting due to the relationship that exists between the systems. Every child develops within the context of various ecological systems, and a change in one system has the ability to affect every other level of systemic functioning. To understand these processes, one must take into consideration the multiple contexts in which they occur.

The interacting systems include the **microsystem**, **mesosystem**, **exosystem**, **macrosystem** and **chronosystem** (Bronfenbrenner, 1999). The **microsystem** is seen as the settings faced by the child on an everyday basis which includes their relationships and immediate environments. The **mesosystem** is the interaction of two or more microsystems and can include the connection between the child's friends, family, social groups and school educators.

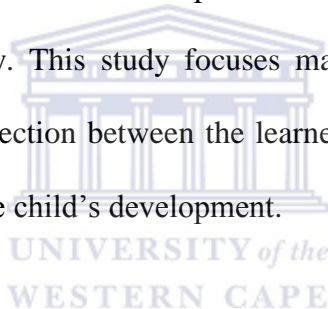
The **exosystem** is seen as the relationship between two or more settings, one of which does not affect the child directly. The **macrosystem** serves as society's overall cultural pattern, including values, customs and social systems. Lastly, the **chronosystem** encompasses the effects of time on other developmental systems.

For the purpose of this study, focus is on Bronfenbrenner's **mesosystem** as it is very useful in providing a theoretical framework. This model is used to illustrate how a child's physical environment and social context are linked in dynamic, interacting and interdependent relationships. The mesosystem consists of the relationship between learners and their family system, educators and parents, and is likely to influence the child's development. Educators working with learners presenting with ADHD symptoms need to understand the many factors involved in the development of the learner, as well as the factors involved in the learner's behaviour and how it manifests in the classroom. If the links between the family microsystem and the school system break down, learners may be negatively affected in the school setting and academic context, and show less initiative and independence. In families where the family and school share mutual communication systems, and the microsystems are congruent, the child will do better (Konza, 1999).

In terms of human potential, the classroom contains two major sources for influencing behaviour and development: the educator, and the children themselves (Bronfenbrenner, 1979). The educator must function as a motivating role model and seek out to organise, develop and coordinate the reinforcing agents both within the classroom and outside. Educators need to be able to facilitate the development of the motivating processes such as modelling, reinforcement, group commitment and involvement in super ordinate goals. Group work, goal-directed activity and the involvement of learners with responsible tasks on behalf of others within the classroom, school, neighbourhood and community, may foster human development and a sense of belonging (Bronfenbrenner, 1979).

Educators that involve children in smaller groups in the classroom show higher frequencies of behaviours such as children contributing ideas, giving opinions, persisting at tasks and cooperating (Bronfenbrenner, 1979). This positive involvement therefore shows higher levels of interest and participation in the classroom but can be challenging when classes are over-crowded and under resourced. Positive involvement of an educator in the school environment can therefore play a positive role in the child's overall growth and development.

The educators' organisational strategies, management practices and instructional strategies also have the potential to impact on the ADHD learner in a negative or positive way, thereby increasing the disabling effects of the ADHD condition or improving the learner's educational outcomes (Konza, 1999). Each system is therefore part of a complex whole which is connected to other systems, directly or indirectly. This study focuses mainly on the mesosystem, due to its relevance in understanding the connection between the learner, educator, and primary caregiver/s, and how this is likely to influence the child's development.



It is also necessary to consider the micro-, meso-, exo, macro and chronosystems in order to understand an educator's role in teaching children with ADHD, the complexities that exist with this disorder, and how children are influenced by the various contexts. Also, by understanding the different layers within the South African education system, together with its diversities and complexities, educators will be better equipped and prepared to undertake the massive task of teaching within an Inclusive Educational Framework. A greater understanding will also be fostered on how learners presenting with ADHD symptoms can be better accommodated in the classroom.

2.3 The South African education system

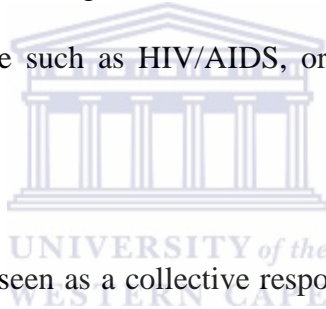
In 1994, South Africa's new government introduced democracy, giving all citizens the right to dignity and equality. At the same time, The Salamanca Statement on Principles, Policy and Practice in Special Education (UNESCO, 1994) served as a collective effort of several international governments and organisations to represent a worldwide consensus on future directions for special needs education. The statement specified that regular schools with an inclusive orientation were the most effective means of overcoming discriminatory attitudes, creating communities that are welcoming, building an inclusive society and providing education for all. During this time, similar goals were soon to be followed in South African education.

Since 1994, the South African education system has been challenged with the aftermath of Apartheid and all that it entailed. Apartheid created a dual education system, which segregated mainstream learners from learners experiencing barriers to learning or disabilities as well as race (Naicker, 2000). Exclusion and separation of these learners were believed to be in their best interest and learners with disability therefore experienced great difficulty in gaining access to education. The impact of this policy was that only 20% of learners with disabilities were accommodated in special schools (Department of Education, 2001).

With the end of the Apartheid era, the Constitution of the Republic of South Africa, Act No. 108 of 1996 came into being, and respect for the rights of all children regardless of race, gender, ethnicity, religion and ability was emphasized (Constitution of the Republic of South Africa, Act 108 of 1996). The South African Education Policy then needed to be revised, rooted in a philosophy of a more inclusive education for all learners. In 2001, the White Paper 6 on Special Needs Education came into being.

This paper outlined a national strategy for systematically addressing barriers to learning through establishing full-service schools, converting special schools into resource centres, capacitating education managers and teachers, developing institutional and district support structures and pursuing a funding strategy (Department of Education, 2001).

Presently, South Africa still has complex diversified conditions throughout the country. The thinking behind inclusive education may be global in terms of what inclusion means, but actions have to be addressed that fit the local circumstances and context in South Africa. There are differences in terms of rural and urban disparity and infrastructures which create an unequal system of inclusive education (Engelbrecht & Jansen, 2003). Certain issues remain rife and include gender inequality, early school dropout rates, refugees that have been displaced, working children, ethnic minorities, those affected by disease such as HIV/AIDS, orphans and overcrowding in schools. (UNESCO, 2007).

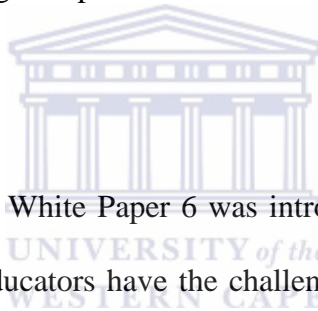


Education should therefore be seen as a collective responsibility of government, civil society and development partners to create learning organisations that are dynamic with an unambiguous mission for social, economic and cultural development (UNESCO, 2007). Without a cohesive effort among all role players, educators are faced with educating learners in an environment that lacks management strategies and appropriate support.

Inclusive education is a human rights issue as children have the right to education, not to be discriminated against on grounds of disability, ethnicity, religion, language, gender, capabilities, and so on. Through an inclusive environment, personal development and building relationships among individuals, groups and nations are fostered. In South Africa, learners of all ages often find themselves in a society challenged to meet the most fundamental needs of all its citizens, resulting in poverty stricken families not able to meet their most basic needs.

In educational contexts, socio-economic related factors contribute to high teacher: learner ratios, shortages of textbooks and other resources and limited provision of school and district based educational support (Modisaotsile, 2012).

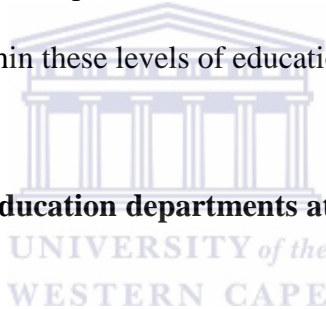
Unfortunately South African learners are also often faced with personal and environmental stressors that put them at risk for emotional, behavioural and academic difficulties (Engelbrecht & Jansen, 2003). This in turn filters in to the classroom, where educators are faced with many challenges due to the extremely diverse variety of learners in the classroom. Challenges therefore exist at the different levels of education. They cannot all be individually isolated but interact in a dynamic way. Contextual factors such as culture, gender, race and disabilities can therefore play a role in advancing our understanding of special needs and how these pose as challenges in the classroom.



It has been 15 years since the White Paper 6 was introduced which has come with both its challenges and accomplishments. Educators have the challenging task of accommodating learners with various physical, mental and emotional impairments as well as racial, cultural and socio-economic diversities. Accommodating learners with impairments can be challenging due to the additional demands placed on the educator. The Education White Paper 6 emphasizes that classroom educators will be the primary resource for achieving the goal of an Inclusive Education and Training system (Department of Education, 2001). This means that the need for improved skills and further training are essential in order to provide learners with the necessary educational or learning support through a multi-disciplinary team (Dreyer, 2008).

The potential for successful inclusion of all learners in a classroom depends on various factors, some of which are whether the educator has been well equipped, supported and has all the appropriate management strategies and interventions in place that can guide them. These strategies need to be relevant and indigenised to fit the South African context (Da Costa, 2003).

Research on the available evidence of the successful inclusion of learners experiencing barriers to learning is limited but there has been an increase of these learners in special schools and as well as evidence to suggest that there is an understanding of 'inclusion' which is value-based and about community, rights, compassion, belonging and respect (Pather, 2011). In order to understand how inclusive education accommodates learners with different needs, it is important to be aware of the functions of the different education departments at various levels of education in South Africa, and what sort of challenges exist within these levels of education.



2.4 An outline of the functions of education departments at the different levels of education in South Africa.

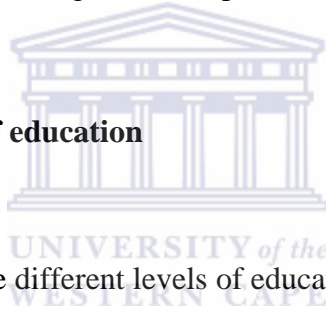
The Department of Education develops policy and the new educational curriculum. Its function is to make sure that policy is represented in legislation and determines how specialised education may work together with other departments. The Provincial Government Department of Education governs each province, and the regional districts fall underneath this. The Provincial department's main function is to implement policy, coordinate services and manage monetary matters (Ladbrook, 2009).

District departments serve as channels with which schools can consult, assist schools, supply schools with in-service training and mobilise services within the community.

District departments are made up of a team of professionals such as school counsellors or psychologists, occupational therapists, speech therapists and social workers etc. These professionals offer services that are supportive of an inclusive education.

Within each district lies the Inclusion and Special Schools department which forms part of the E Learning and Curriculum Support service. The Inclusion and Special Schools department provides schools with valuable guidance and support (Ladbrook, 2009). Each level of education therefore has its own function and role, and various challenges exist within the different levels of education. One cannot operate without the other, so challenges on one level have the potential to influence other levels. This impacts how inclusive education is managed in the South African education system and how educators manage children presenting with ADHD.

2.5 Challenges at different levels of education



Challenges can exist within the different levels of education. Factors within each system have the potential to directly impact educators in their roles in inclusive classrooms. The Education Department has the responsibility of establishing and providing necessary funding that allows the inclusive education system to be implemented effectively. The task of the Provincial Government is then to implement these strategies within the various districts. According to Ladbrook (2009), there has been a slow roll out of the policy document, the Education White Paper 6 (Department of Education, 2001), a lack of financial support and a delay in developing the resource centres/special schools and full service schools. At Provincial level, there is a lack of research on the effectiveness of inclusive strategies in education. This has created immense challenges for educators in South Africa.

Implementing inclusive education within the South African context can be daunting. Research conducted by Swart et al. (2002) indicated that there was a lack of training and insufficient facilities and resources available for educators to effectively implement inclusive education in South Africa.

Also, negative attitudes and learning environments, a lack of parental and community involvement, and work fulfilment inhibited through stress, were challenging factors. Other challenges include lack of resources, unequal learning opportunities stemming from various factors such as poverty and socio-economic deprivation, disease (e.g. HIV/AIDS) and various cultural and traditional forces. Also, learning in a language other than one's mother tongue, violence towards women and children, crime, migrant populations, marginalization of learners and their families, and political and racial tensions are amongst other challenges. These challenges have the potential to greatly impact educators and their learners. For South Africa to successfully implement an effective inclusive education system, the different levels of education need to work together and find ways to address the many challenges that educators in South Africa face on a daily basis.

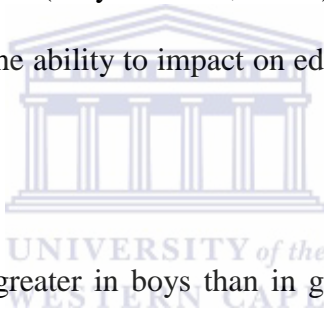
2.6 Prevalence and characteristics of ADHD

2.6.1 Prevalence of ADHD

Over the years, ADHD has become one of the most researched, publicised and controversial childhood disorders, with numerous local and international studies investigating its prevalence rates, causes, symptoms and prognosis. The exact prevalence rates differ across the globe with risk factors including age, gender, chronic health problems, family dysfunction, low socioeconomic status, presence of a developmental impairment and urban living (Antshel et al., 2011)

In spite of the differing results, research suggests that ADHD exists and occurs trans-globally (Faraone et al., 2003). A comprehensive global study conducted by Moffit and Melchior (2007), revealed a worldwide prevalence rate of 5.29%. According to Hamilton (2011), the prevalence rates of ADHD are increasing in the USA, as the percentage of diagnosed children ranging from ages 5 to 17 increased from 7% to 9% between the years 1998 to 2009.

Since the 1980's, children presenting with ADHD symptoms have comprised the largest single source of referrals to child mental health centres (Mather & Goldstein, 2001). Most children will present with some of the symptoms of ADHD at some point in their childhood. To date, data on the prevalence of ADHD in South Africa is limited, but it is estimated that approximately 4 to 5 % of children present with ADHD (Meyer et al., 2004). ADHD can continue throughout adolescence and adulthood and has the ability to impact on education and development from a very young age.



The prevalence of ADHD is greater in boys than in girls, depending on the sub-type. The male to female ratio ranges from 2:1-9:1 (Walker et al., 2011). Boys are often diagnosed more readily than girls as they may present with more obvious symptoms such as aggression and other forms of misbehaviour (Arcia & Connors, 2008). Girls present with problems in mood, show more internalising symptoms and are more socially withdrawn (Sears & Thompson, 1998). Most children who display ADHD symptoms are referred to professionals because of aggression and other forms of misbehaviour, resulting in girls often being overlooked for treatment (Quinn & Madhoo, 2014). According to Patricia and Pastor (2010), the diagnosis and treatment of ADHD in South Africa is lower for ethnic children than for Caucasian children. This could be because of lack of access to health care, resources and education on ADHD available to underprivileged communities.

The cause of ADHD is not clear but there is strong evidence that suggests a genetic link (Biederman & Faraone, 2005). The pattern of ADHD prevalence in families is well documented. According to Dopheide and Pliszka (2009), children with a first-degree relative with ADHD have a 25% increased risk of developing ADHD compared with the general population. Studies of identical twins show that if one has ADHD there is an 80 to 90% risk that the other twin will also have it. There are also environmental risk factors which could contribute to ADHD but the genetic component seems to outweigh the environmental component, which may only affect how severe and persistent the ADHD symptoms are (Sears & Thompson, 1998).

2.6.2 Characteristics of ADHD

Current advances in cognitive neuroscience, neuro-imaging, and behavioural and molecular genetics have provided evidence that ADHD is a complex neurobiological disorder, making it difficult for an individual to control their impulses (Antshel et al., 2011). Many regions of the brain and several neurotransmitters have been implicated during the study and identification of the causes of ADHD. Biologically, the neurotransmitter dopamine has received considerable attention as being relevant to understanding ADHD. Individuals diagnosed with ADHD may have lower levels of the neurotransmitter dopamine, have a problem with the levels of protein that carries dopamine between locations, or have areas of the brain that are less affected by dopamine (Volkow et al. , 2009). Research has indicated that some of these brain regions are slightly smaller or have decreased activation in people with ADHD (Antshel et al., 2011).

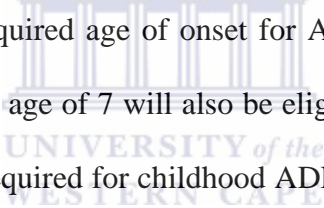
Neurologically, the prefrontal cortex seems to be relevant to understanding ADHD. The prefrontal cortex has a high requirement for dopamine, and plays a role in cognitive functions such as executive functions.

Brain imaging studies have shown that when an individual diagnosed with ADHD is on stimulant medication, there is evidence that demonstrates an increased metabolic activity in the prefrontal cortex, specific subcortical regions, and the cerebellum (Barkley, 2006). These regions are all important centres for executive function. Prescribed medications work by blocking dopamine and norepinephrine reuptake so there is more of the neurotransmitter in the synapse. By having more neurotransmitters available, the individual's activity and communication in those parts of the brain are improved. Thus, these areas of the brain appear more active and responsive to cognitive tasks when the neurotransmitter levels are increased.

Difficulties controlling impulses can negatively affect the control of behaviour, self-concept and ability to live normally, preventing one from achieving one's full potential. According to the DSM V (American Psychiatric Association, 2013), children displaying symptoms of ADHD often show a persistent pattern of inattention and/or hyperactivity-impulsivity in multiple settings, which differs to the normal behaviour patterns of a child without ADHD. This can lead to poor academic performance; difficulties making and maintaining friendships; difficulties within the family, friendship group and school; rejection by others as well as the risk of developing low self-esteem and depression (Abikwi, 2009).

Over the last few decades, the prevalence of diagnosed childhood psychiatric disorders has increased dramatically (Hinshaw & Scheffler, 2014). Various factors seem to be pushing up the numbers of children diagnosed with ADHD. The increase of ADHD has become a controversial topic, raising questions as to whether it is a mental health crisis, or whether it is a societal or cultural problem. With the push for academic performance and success, a lot of pressure is placed on individuals to excel academically.

There are current debates in literature about the over-diagnosis of ADHD. Few empirical studies have addressed this topic, and they have found a trend for potential over-diagnosis of ADHD (Sciutto & Eisenberg, 2007). In the United States, ADHD diagnoses increased from 7.8% in 2003 to 9.5% in 2007; a growth of over 20% in 4 years (CDC, 2010). The documented prevalence rates of ADHD vary because of differences in diagnostic definition and detection practices across the world. The rate of ADHD diagnosis varies between countries; it even varies significantly within countries (Hinshaw & Scheffler, 2014). Not all therapists follow the DSM–V and ICD–10 requirements to base their diagnosis on a thorough evaluation of the relevant diagnostic criteria. There is the possibility of therapists being influenced by a variety of biases and rules of thumb, such as the representativeness heuristic, which could lead to over-diagnosis and different evaluation of symptoms in boys and girls (Bruchmüller et al., 2011).



The DSM-V has raised the required age of onset for ADHD from 7 to 12, so that children who present with symptoms after the age of 7 will also be eligible for the diagnosis of ADHD; and to reduce the percentage of criteria required for childhood ADHD from 67% (6 of 9) to 47% (CDC, 2010). In the changes made in the DSM–V, dimensional elements play a much more important role in diagnosis. An improvement of diagnostic criteria, in this case, a higher emphasis on impairment, might also lead to a more valid diagnosis and, it is hoped, to a decrease in misdiagnoses (Pelham et al., 2005).

In order to diagnose ADHD in children and adolescents, information should be obtained from both parents and educators to describe the child's behaviour in multiple settings. Diagnosis should be based on a complete history and evaluation by the healthcare provider. According to the American Psychiatric Association (APA), (2013), there are three sub-types associated with ADHD namely, 1) ADHD/ Combined Type, 2) ADHD/ Predominantly Inattentive Type and 3) ADHD/ Predominantly Hyperactive-Impulsive Type.

For a child/adolescent to be diagnosed, consideration needs to be taken dependent on which symptoms are most prevalent. Symptoms must occur beyond the extent that is normal for the person's age, and must occur in different settings. The person must have at least six inattentive and/or six hyperactive/impulsive symptoms for at least 6 months to a degree that is inconsistent with the developmental level and that negatively impacts directly on social and academic/occupational activities (for people aged 17 and older, only five symptoms must be present).

Several symptoms must be present before the age of 12 that clearly interfere with, or reduce, the quality of social, academic, or occupational functioning. The symptoms should not be due to another cause. For the combined type, six symptoms of inattentiveness and six symptoms of the hyperactive-impulsivity symptoms must be present for a diagnosis. For the predominantly inattentive type, six or more inattentive symptoms, but fewer hyperactive-impulsivity symptoms, must be present. For the predominantly hyperactive-impulsive type, six or more of the hyperactivity-impulsivity symptoms, but fewer inattention symptoms, must be present (APA, 2013).

The following are symptoms needed for the diagnosis of ADHD according to the DSM 5:

1) Inattention:

Six (or more) of the following symptoms have persisted for at least 6 months to a degree that is inconsistent with the developmental level and that impact directly on social and academic/occupational activities. Note: for older adolescents and adults (aged 17 and older), only four symptoms are required.

The symptoms are not due to oppositional behaviour, defiance, hostility, or a failure to understand tasks or instructions.

(a) Often fails to give close attention to details or makes careless mistakes in schoolwork, at work, or during 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) Frequently does not follow through on instructions.

(e) Often has difficulty organizing tasks and activities.

(f) Characteristically avoids, seems to dislike, and is reluctant to engage in tasks that require sustained mental effort.

(g) Frequently loses objects necessary for tasks or activities.

(h) Is often easily distracted by extraneous stimuli.

(i) Is often forgetful in daily activities, chores, and running errands.

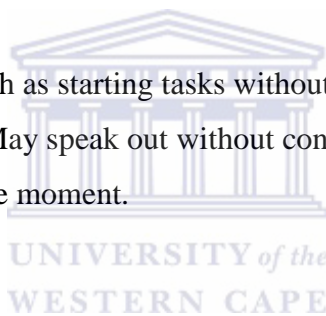
2) Hyperactivity and Impulsivity:

Six (or more) of the following symptoms have persisted for at least 6 months to a degree that is inconsistent with the developmental level and that impact directly on social and academic/occupational activities. Note: for older adolescents and adults (aged 17 and older), only four symptoms are required. The symptoms are not due to oppositional behaviour, defiance, hostility, or a failure to understand tasks or instructions.

(a) Often fidgets or taps hands or feet or squirms in seat.

(b) Is often restless during activities when others are seated.

- (c) Often runs about or climbs on furniture and moves excessively in inappropriate situations.
- (d) Is often excessively loud or noisy during play, leisure, or social activities.
- (e) Is often “on the go,” acting as if “driven by a motor.”
- (f) Often talks excessively.
- (g) Often blurts out an answer before a question has been completed. Older adolescents or adults may complete people’s sentences and “jump the gun” in conversations.
- (h) Has difficulty waiting his or her turn or waiting in line.
- (i) Often interrupts or intrudes on others.
- (j) Tends to act without thinking, such as starting tasks without adequate preparation or avoiding reading or listening to instructions. May speak out without considering consequences or make important decisions on the spur of the moment.
- (k) Is often impatient.
- (l) Is uncomfortable doing things slowly and systematically and often rushes through activities or tasks.
- (m) Finds it difficult to resist temptations or opportunities, even if it means taking risks.



2.7 Assessment of ADHD

The relatively high prevalence rate of ADHD and the numerous difficulties associated with it has led to developing reliable and valid measures for diagnosing ADHD.

A multi-method, multisource assessment method is considered to be the best type of evaluation of children presenting with ADHD symptoms (Anastopoulos & Shelton, 2001; Barkley, 2006), as this provides a more accurate and comprehensive assessment. The methods of assessment include interviews with parents and educators and completion of behaviour rating scales filled out by parents and educators. These are measures with established reliability and validity, recording symptoms on the basis of the perception of educators and parents, and are some of the most widely used measures. Examination of school records are essential to establish the duration of symptoms and direct observations of behaviour in several settings (American Psychiatric Association, 2013). These methods are used to establish whether a child's behaviour meets the DSM-V criteria for ADHD.

It is therefore imperative that practitioners use comprehensive procedures when diagnosing ADHD, thereby increasing the probability that a diagnostic decision is made that is accurate. Once a child has been identified and diagnosed with ADHD, there may be significant implications in the way that the child is treated at school, such as being permitted access to additional resources or services, if the school has these available. An assessment that is accurate is therefore essential in order to treat a child presenting with ADHD effectively and successfully.

2.8 Treatment of ADHD

There are several treatments and interventions that can be used to help children with ADHD. For the effective treatment and management of ADHD, a combination of several interventions is usually followed to meet each child's specific needs. Research has shown that combined therapy using medication and psychosocial interventions is the most effective way to deal with the core symptoms of ADHD and the resulting impairments (CADDRA, 2011). These include pharmacological treatment, psychological treatment, social and family-school based interventions.

A well thought out and comprehensive treatment plan should be developed for the child diagnosed with ADHD. It is important to note that the first step in the intervention process is the education of parents about the nature of the disorder. The ADHD child, together with parents, siblings, educators and other professionals, must be active participants in the treatment programme. The treatment plan should be reviewed regularly and modified if the child's symptoms do not respond.

2.8.1 Pharmacological Treatment

Medication continues to be the most common method of treatment for children diagnosed with ADHD. Stimulants such as methylphenidate and amphetamines are the most commonly used psychotropic medications in children, being widely prescribed for the treatment of ADHD. These drug treatments have been shown to improve the core symptoms of inattention, hyperactivity and impulsivity. The continued and widespread use of medications is a result of both cost efficiency and a large volume of research demonstrating short-term positive effects. The medication currently licensed in South Africa for ADHD is Methylphenidate and Atomoxetine, and the most commonly prescribed medication is Methylphenidate (Van Der Westhuizen, 2010).

This is available as immediate-release formulations that last for three to four hours and are taken two to three times a day; a long acting formulation that lasts for six to eight hours; or an extended release formulation that is taken once in the morning and lasts for twelve hours. The practitioner determines the most suitable treatment for the child. Although pharmacological treatments are widely used, the long-term effectiveness remains to be established (Van de Loos-Neus et al., 2011). Medication can have adverse effects on sleep, appetite and growth, which are quite common and rarely serious yet resulting in some parents and clinicians having reservations about the use of such medication (Berger et al., 2008).

Guidelines set forth by the American Academy of Paediatrics (2011) recommend that medication only be used when behavioural interventions are not available or when behavioural interventions have been used but there remains room for improvement.

Non-pharmacological interventions will also be reviewed, such as psychological treatment focused on training parents, teachers and children. Behaviourally based approaches focused on parent and teacher training are the most well-studied and effective interventions (Rajwan & Chacko, 2012).

2.8.2 Psychological Treatment

Various types of psychotherapy are used when working with children presenting with ADHD, which can increase their level of functioning as these children are characterised frequently as possessing underdeveloped executive functions and sustained attention abilities.

Research on non-pharmacological interventions in ADHD treatment has shown that psychological treatments that incorporate behavioural techniques prove effective (Fabiano et al., 2009). Psychotherapy can help to boost a child's self-esteem through improved self-awareness and compassion. It also offers support for children and their families during the changes that are brought about through medication and help limit any destructive consequences of ADHD through conscious efforts to alter behaviour (Martin, 2007).

2.8.2.1 Cognitive-behavioural therapy (CBT) is commonly used for children with ADHD. The aim of CBT is to teach children to self-regulate their own behaviour, self-regulate their daily habits, be able to select and filter out data that is relevant from data that is irrelevant, self-evaluate, develop a healthy self-esteem and form meaningful relationships with others (Bailey, 2001).

This type of therapy helps the child to talk about upsetting thoughts and feelings, explore unhealthy and self-defeating patterns of behaviour, and equip children to learn to handle emotions in different ways as well as to feel better about themselves despite the disorder.

A therapist will also help children identify and build on their strengths, work on answering unhealthy or irrational thoughts, learn to cope with daily problems and challenges as well as control their attention and aggression. CBT can also help the family to better handle the disruptive behaviours, promote change, and develop techniques for coping with and improving their child's behaviour (Cratty, 2004). Parents need to understand the disorder and the implications the disorder has for family life, education, behaviour, and social relationships in order to know how to help their child.

CBT can be a very effective treatment if individuals are well-assessed and understood; if key adults facilitate the process by implementing the treatment in an environment where the cognitive skills are needed and a sufficient length of time is set aside to effectively train children requiring skills and treatment to foster clinically meaningful outcomes (Greene & Ablon, 2001).

Children are taught to use self-instruction, self-monitoring, self-reinforcement, problem solving and motivational strategies to develop self-control of their attention and impulse behaviour problems (Purdie, Hattie & Carrol, 2002). When cognitive interventions are combined with behavioural contingencies in natural settings at the time that problem behaviour occurs, it is said to be most effective. Educators and key caregivers that involve themselves to promote the CBT techniques at home and at school are likely to create positive results.

The self-instructional training is a useful technique used in CBT that teaches children a sequence of helpful thoughts and appropriate behaviour when solving problems, replacing misguided thoughts created by impulsively (Bailey, 2001).

For example, children diagnosed with ADHD who speak without turn or blurt out answers in the classroom are taught to answer to themselves quietly, without interrupting others, and are taught to say words of restraint to themselves such as “I can wait my turn” or “I know the answer, but I’ll wait my turn”. Learners are therefore trained to become aware of their inappropriate thoughts. Therapists then model the appropriate behaviour while making effective action strategies clear. These strategies are performed by the learner who verbalises the appropriate self-instruction while trying it out (Shillingford et al., 2007). Positive reinforcement is used by the therapists to encourage the use of cognitive strategies such as self-instruction. Children diagnosed with ADHD need more consistent and immediate rewards and consequences than do their same age peers without ADHD (Kaiser & Pfiffner, 2011).

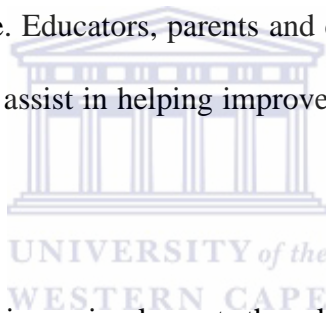
Parents and educators of learners presenting with ADHD are also trained to manipulate the antecedents and consequences of behaviour in the classroom and at home. Environmental factors are manipulated that are antecedents to or consequences of the maladaptive behaviour in order to encourage the desired behaviour (Chronis et al., 2006). Through identifying and manipulating the antecedents and consequences of a child’s behaviour, parents can target and monitor behaviour that is maladaptive, reward appropriate behaviour through praise and affirmation and tangible rewards. It is important to provide clear and consistent behavioural expectations which are carefully monitored by parents at home and educators at school.

Educators working with children diagnosed with ADHD can implement behaviour interventions in the classroom that focus on ADHD symptoms and difficulties such as following classroom rules, taking part in appropriate interactions with other children, avoiding disruptive behaviour and abiding by the educator’s commands (Daly et al., 2007). Behavioural interventions in the classrooms should focus on verbal praise, effective commands, a point system or token economy system, daily report card or time out (Chronis et al., 2006).

In order to avoid singling out learners with ADHD, a point or token system can be implemented for an entire classroom to prevent exclusion of any learners (Daly et al., 2007).

2.8.2.2 Behaviour Modification

Behaviour modification is a specific type of psychotherapy that can be used when working with diagnosed with ADHD and their families. It is a form of Behaviour Therapy, which is an evidence-based practice for treating children with a wide variety of disruptive behavioural problems (Eyberg, Nelson, & Boggs, 2008). Applied to children with ADHD, behavioural interventions have been exclusively identified as the only psychosocial interventions to be effective for the improvement of core symptoms (Fabiano et al., 2009). This type of therapy focuses on ways to deal with immediate issues that may arise. Educators, parents and children are taught specific skills and techniques from a therapist that will assist in helping improve the behaviour of children presenting with ADHD.



Educators and parents/caregivers implement the skills taught to them in their daily interactions with the children. The aim is to help improve the children's day to day functioning and social interactions with others. The therapist begins with a comprehensive evaluation of the child's problems in various settings, such as at home, school and in social environments. It looks at thinking and coping patterns directly, without delving too deep or trying to understand their origins. The aim is to change and improve behaviour and focus on practical issues, such as organizing tasks or schoolwork in a better way, or dealing with emotionally charged events when they occur. The child may be asked to monitor their actions and give themselves rewards for positive behaviour such as stopping to think through the situation before reacting (Martin, 2007).

Behaviour modification is often put in terms of ABCs: A stands for Antecedents - things that precede, set off or happen before behaviours. B stands for Behaviours - something the child does that the parents or educators would like to help change. Lastly, C stands for Consequences – something that happens after behaviours (Abikoff, 1991). Adults are taught to change antecedents, for example the way in which they give commands to children; as well as consequences, such as the way in which they react when a child obeys or disobeys a command to alter the child's behaviour or response to the command. Adults teach children different ways of behaving by consistently changing the way they respond to children.

In parent, educator and child interventions, behaviour modification should be carried out at the same time to achieve the best results. According to the American Academy of Paediatrics (APA) (2011), the following should be incorporated into behaviour modification interventions: starting with goals that children can achieve in small steps, being consistent across different times of the day, different settings, different people etc., implementing behavioural interventions for as long as needed and being patient when working with children, as teaching and learning new skills take time and improvement may be gradual.

A list of target areas or target behaviours are compiled which helps improve functioning and impairment through behavioural interventions. Educators and parents are taught programmes in which the environmental antecedents (the A's) and consequences (C's) are used to change the child's target behaviour (B's). The response to the programme is monitored continually and interventions are modified according to the results or response (Abikoff, 1991). Behavioural parent training programmes have been found to be very effective when working with children diagnosed with ADHD (Hartman et al., 2003). Many of the techniques that are learned in behavioural parent training are parenting skills based on common sense and are taught to be used consistently in order to be successful.

Behavioural techniques used by educators in the classroom to manage ADHD are also proven to be effective (DuPaul & Eckert, 1997). Most children with ADHD are enrolled in an inclusive education system with educators who may know little about behaviour modification techniques and therefore require guidance in learning and implementing the appropriate programmes in their classrooms. Parents of children with ADHD are encouraged to work closely with educators to implement the classroom programmes effectively. Behaviour modification interventions are therefore an innovative way of addressing ADHD as it incorporates parents, educators and children in order to facilitate improvement in behaviour and may help them overcome the challenges they face in various settings and circumstances.

2.8.3 Social Skills Training for ADHD

Children with ADHD often encounter problems in social interactions with peers and are confronted with peer rejection and social isolation. Pharmacological treatment may alleviate symptoms of ADHD but seldom solves difficulties with social interactions (Storebo et al., 2011). Interventions for peer relationships are a critical component of treatment for children with ADHD. One of the most common approaches to social problems in children is social skills training (Hoza, 2007). This type of training includes a variable mixture of cognitive-behavioural intervention elements.

Social skills training focuses on teaching children behaviour that is necessary to develop and maintain relationships as very often children with ADHD struggle to maintain peer relationships. Evidence suggests that children who overcome these challenges often do better in the long run compared to those who do not (Woodward & Fergusson, 2000).

Behaviour modification focuses on responding to social situations in better ways, such as waiting for a turn, sharing toys, asking for help, or certain ways of responding to teasing. These type of skills are not often taught by parents or educators but are usually learned naturally by observing and repeating behaviour that is seen.

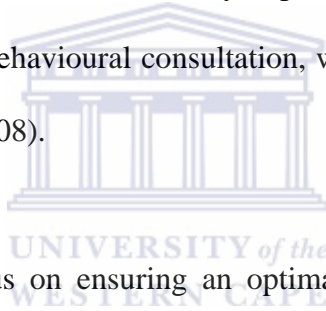
According to Bagwell et al., (2001), effective forms of interventions for peer relationships include systematic teaching of social skills, social problem solving, teaching behavioural skills considered important to children, decreasing undesirable and antisocial behaviours and developing close friendships. These interventions use methods that include coaching, the use of examples, role-playing, feedback, rewards and consequences, and practice. Some of the skills include learning how to engage in conversation with others, listening attentively, asking questions, learning how to see other people's perspectives, making eye contact and how to read body language and gestures (Martin, 2007). Children with ADHD may find learning these skills a challenge or may struggle to use them appropriately. This type of training helps children to learn and use these skills in a safe environment where they can practice them with the therapist, parent or educator.

2.8.4 Family-School based Interventions

As mentioned previously in the theoretical framework, family functioning and involvement can have an effect on a child's performance at school. Parenting practices that encourage strong parent-child attachments and child self-regulation help children flourish in the school environment and at home (Pianta, 1997). Involvement from families can take the form of supporting children with homework, as well as a successful partnership between family and school, such as parent-teacher meetings to resolve any problems arising at school.

Over the past few years, family-school interventions for children presenting with ADHD have emerged. The family-school based intervention developed by Owens et al., (2008) includes daily report cards, behavioural consultation to teachers, and parent training. The research indicated a decrease in symptoms as well as impairments and showed an improvement in the relationships between the child and parents and child and teachers in comparison to a control group.

The key components of the family-school interventions are that it involves building and strengthening the family-school partnerships through behavioural consultation and encouraging the involvement of families in education through systematic homework interventions (Sheridan & Kratochwill, 2008). Strengthening the parent-educator relationship is important in order to create a context that is able to resolve problems the child may experience at school through collaborating and working through the stages of behavioural consultation, which is a structured problem-solving process (Sheridan & Kratochwill, 2008).



Homework interventions focus on ensuring an optimal time for completing work, which includes positive reinforcement for the completion of tasks. Setting goals is also an effective approach which involves setting realistic goals, evaluating performance in relation to goals and establishing reinforcements that are contingent once the goals have been attained (DuPaul & Stoner, 2003). Lastly, daily report cards are a behavioural intervention that makes use of the delivery of contingencies at home, based on educators' reports of the child's performance at school on a daily basis. In this way, the individual has constant feedback between the educator and parent.

Parents are requested to create reasonable goals for performance and reinforce the child for goal attainment (Vannest et al., 2010). Open communication and involvement between educators and families of children presenting with ADHD symptoms are therefore imperative for effective management of ADHD.

It is also important and beneficial for parents with children diagnosed with ADHD to join support groups as this may foster a sense of connection to others with similar experiences and challenges, and can lead to openness, problem sharing and problem solving, sharing of ideas, advice, concerns and fears. The groups allow individuals to share their experiences in a safe and compassionate environment where they will feel support and comfort (Martin, 2007).

2.9 Management of ADHD

The classroom is one of the main settings where ADHD symptoms are recognised as structure, discipline, attention, learning and self-control are expected from the learners. ADHD learners are most often placed in an inclusive educational setting, resulting in learners struggling to pay attention, becoming restless, impulsive and non-compliant. This behaviour impacts not only on their peers, but also on their educators as well as on their own capabilities for academic achievement. Effective behaviour and classroom management will therefore assist learners presenting with ADHD to become more academically engaged. Thus the development of effective non-medical interventions are vital, which educators themselves can implement.

2.9.1 Behaviour management strategies

According to Purdie et al., (2002), behaviour management is the utilisation of interventions that use both the principle of reinforcement and punishment with the aim of increasing desirable behaviours and decreasing problematic behaviours. Extensive research has shown a wide range of valuable classroom interventions to be effective. These interventions are available to educators who can use them to help address the needs of learners presenting with ADHD symptoms in the classroom. School interventions are an imperative component in the treatment of ADHD.

The educator must understand the ADHD child's behaviour from the perspective of the developmental impairment and be able to make the distinction between incompetent and non-compliant behaviour. Also, the basic cause of these problems, the developmental course and the common symptomatic manifestations of ADHD in the classroom need to be known (Simplicio, 2007). The effects that specific behaviour may have must also be understood, such as punishment and negative reinforcement.

Helping educators identify and define problematic behaviour in the classroom is important. Once identified, problems can be prioritised and interventions developed. Interventions will be situation specific and implemented within the classroom. Interventions are then stratified according to those that are designed to help the child manage him/her versus those that alter the environment, thereby assisting the child to function more effectively (Simplicio, 2007).

Both individualised and class-wide interventions have been found to have favourable outcomes. Simplicio (2007) reports that not all techniques are found to be successful or effective for all students in the traditional classroom setting as educators can be slow to implement behaviour management strategies as they believe these to be too time-consuming. In order to improve socially acceptable behaviour, learners need to be provided with instruction and feedback (Franzen & Kamps, 2008). Also, DuPaul and White (2006) emphasise interventions in the classroom that need to focus on improving academic and behavioural functioning rather than focus on the ADHD-related behaviours.

Proper management of learners displaying symptoms of ADHD in the classroom helps these learners to make a valuable contribution instead of being a constant distraction in the classroom.

Many strategies that have proved successful for learners with ADHD are also useful in helping other learners in the classroom, making class-wide strategies a viable option (DuPaul & White 2006). Effective interventions in the classroom that focus on problem behaviour are therefore essential for academic progress as well as emotional well-being.

2.10 Classroom Management

Problematic behaviour and learning difficulties can be reduced by changing the environment in the classroom. According to Brock et al. (2009), the following interventions can support and help children presenting with ADHD:

Task Duration

ADHD learners have short attention spans therefore academic assignments should be brief, allowing frequent breaks during long periods of work. Educators should also provide immediate feedback regarding accuracy.

Task Difficulty

Adjusting the task difficulty to match the learner's skill level is a way to hold their attention and help them to avoid becoming frustrated. Simple tasks can cause learners presenting with ADHD symptoms to become bored and inattentive, therefore starting off with easier tasks and progressing slowly to more challenging tasks can facilitate engagement and confidence with tasks.

Direct Instruction

Teacher-directed activities instead of independent seatwork can help improve attention and on-task behaviour. Skills can be learnt or practiced which can teach learners to avoid irrelevant cues, such as others talking, and shift the focus on important educator instructions.

Scheduling

On-task behaviour of learners presenting with ADHD often worsens as the day progresses, therefore it is advised that important instructions are given in the morning. Preferably, more active activities can be planned after non-preferred activities to provide motivation and an incentive to finish more challenging tasks.



Novelty

The novelty and level of interest of specific tasks can be increased which can in turn increase the attention and performance in children presenting with ADHD symptoms. Tasks that include different colours, shapes and textures may hold the attention of learners, as well as those that introduce different mediums, such as films, skits, models etc. Repetitive tasks should be avoided as these could reduce attentiveness.

Structure and Organisation

Structure, predictability and organisation are important when teaching learners displaying ADHD symptoms. They benefit from and respond positively to consistency and a routine and should be notified in advance if changes occur.

Rule Reminders and Visual Cues

Rules given to learners presenting with ADHD symptoms should be well explained and enforced frequently. There should be clear consequences when rules are broken. Visual reminders should be clearly placed in and around the classroom as visual aids. Rules can be reviewed before each activity transition and after school breaks.

Clear and Direct Instructions

It is often challenging for learners to follow directions with many steps. Reducing the words, with more direct instructions, may increase the understanding and attention of learners.

Choice



Providing learners with a choice of activities can help to lessen disruptive behaviours and increase on-task behaviour and task completion.

Productive Physical Movement

Learners displaying ADHD symptoms might find it challenging to sit still for long periods of time, therefore including physical movement may improve the on-task behaviour of learners. Educators need to be flexible and able to change instructional demands accordingly.

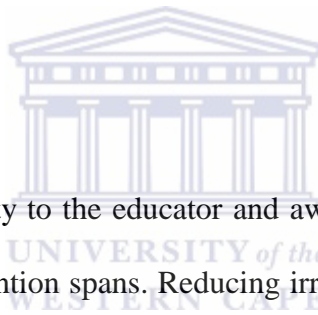
Active Versus Passive Involvement

Hyperactive learners can channel their disruptive behaviour into more constructive outcomes through tasks that require more activity as opposed to passive responses. Involving learners through assistance in some way could help with engagement of the task.

Cross-Modality Responding and Feedback

Learners respond better to cross-modal feedback, using verbal feedback when completing visual tasks or when response options are available in a format different from the question.

Distractions



Seating the learner in close proximity to the educator and away from high traffic areas can lessen distractions and increase learner attention spans. Reducing irrelevant distractions such as toys from the work space is recommended. Auditory distractions during complicated and effortful tasks are often the most problematic for learners displaying ADHD symptoms and it is therefore important to eliminate these.

Planning Ahead

Understanding ADHD and its primary symptoms are important in anticipating challenging situations within the classroom. Problem solving tasks that are effortful may be difficult due to the low frustration threshold of many learners displaying ADHD symptoms. Situations like these should be expected and suitable accommodations should be made.

2.11 Challenges that educators encounter in the classroom environment when working with learners presenting with ADHD symptoms

In South Africa there are several factors deemed as 'barriers to learning'. These include physical, mental, sensory, neurological and developmental impairments, psycho-social disturbances, differences in intellectual ability and socio-economic deprivation (Department of Education, 2001). These factors can be seen as challenging for educators, and have the ability to form barriers which constrain basic education and learning for learners.

Children presenting with ADHD symptoms typically exhibit behaviour that could impact their classroom and academic performance negatively, such as being distracted often, difficulty sustaining attention and focusing on educator instruction, forgetting classroom material, difficulty with organisational skills, not completing work or studying for tests in a sufficient or effective manner (Barkley, 2015; DuPaul & Stoner, 2014). According to The American Psychiatric Association (2013), the symptoms of ADHD can include high levels of fidgeting; speaking out of turn; breaking rules without considering consequences; rushing through work; making inappropriate noises that disrupt others; and jumping ahead of turn in various activities. These behaviours can be seen as challenging for the educator as well as disrupting for other children in the classroom.

The combination of ADHD symptomatic behaviours and accompanying aggression and/or defiance, as well as functional impairments, could place the student at high risk for failure at school and create significant challenges for those working with children presenting with ADHD symptoms. Educators are often the ones to recognise when students develop difficulties and often have to address behavioural, academic, and social issues in a comprehensive way. Educators must be able to understand the nature and consequences of ADHD and must be equipped to screen, assess and intervene in a timely and supportive manner (Brock et al., 2009).

Educators therefore need to be able to refer students to mental health professionals if ADHD is suspected and prioritise target behaviours for intervention.

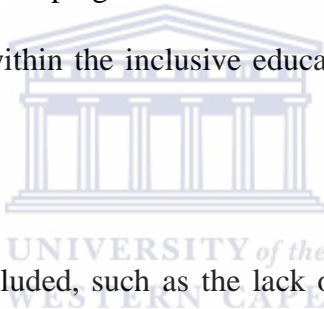
There is a significant gap between effective services documented and services available to children presenting with ADHD symptoms in schools. The educators of children presenting with ADHD in their classrooms are therefore at a disadvantage if services are not available to their children who need it, creating additional challenges in the classroom (DuPaul & Stoner, 2014). Literature suggests that although there is a growing body of information available to increase understanding of ADHD, a significant gap remains between research and practice in most school settings (Brock et al., 2009; DuPaul & Stoner, 2014). The implementation of inclusion in South African classrooms still presents with many challenges for educators and learners in the classroom.

The Salamanca Statement on Principles, Policy and Practice in Special Education (UNESCO, 1994) states that within inclusive education "... schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions. This should include disabled and gifted children, street and working children, children from remote or nomadic populations, children from linguistic, ethnic or cultural minorities and children from other disadvantaged or marginalised areas or groups."

South Africa strives to achieve a dignified and equal society but the diversified conditions still pose as a particular challenge to an inclusive education system and the understanding of ADHD which remains one of the fastest growing childhood conditions to date. Successful implementation of the White Paper 6 Policy is based upon an understanding of the real experiences and capabilities of systems, institutions and settings, and understanding how learning difficulties in mainstream education can be addressed (Department of Education, 2001).

Effective management, policy, planning and monitoring are needed by the Department of Education; guidance and support for the development of the inclusive education and training system (Department of Education, 2001:46). Due to a lack of funding, provinces often face service delivery and funding challenges, affecting the way educators are able to educate their learners and the way resources are utilised in the classrooms. Also, the lack of appropriate training, results in educators not always meeting the needs of learners presenting with ADHD and others with special needs.

In research conducted by Ladbrook (2009), several factors were identified as challenges within the inclusive education system in South Africa. As mentioned earlier, a slow roll out of the policy document the Education White Paper 6, lack of a network of support for educators, lack of financial support, and a delay in developing the resource centres/special schools and full service schools. These pose as challenges within the inclusive education system and ultimately influence educators in the classroom setting.



Several other factors were included, such as the lack of training for the implementation of inclusive education and the struggle without knowledge and skills. An inadequate infrastructure also results in resource insufficiencies, lack of financial resources, lack of human resources and lack of educators. A negative learning climate is caused by poverty and emotional deprivation. Stress factors such as size of the class, the necessity to fulfil many roles, administrative factors and cultural differences posed as challenges, thereby inhibiting job fulfilment. Lastly, the negative attitudes of educators towards learners experiencing barriers to learning and lack of parent and community involvement remain real challenges (Ladbrook, 2009).

Educators have the responsibility of transforming school environments into places that are conducive to learning. Apart from their roles as educators, teachers often have duplicate roles of other professionals, such as psychologist, social worker, counsellor and friend etc.

Their challenges are multi-faceted and they have the ability to influence the lives of their learners immeasurably. They are the principal implementers of inclusive education and hold the key to its successful implementation.

Inclusive schools are intended to provide effective education for the majority of children and improve the efficiency and cost-effectiveness of the entire education system (UNESCO, 1994). The inclusive education system is about respecting, recognising and supporting the differences among all learners so that the full range of learning needs can be met. In order to overcome the many challenges that are associated with ADHD, educators need to become a part of a dynamic and multi-level eco-system in order to understand and address areas of need. Special needs education is therefore a topic of equal concern to countries throughout the world as well as South Africa, and cannot be looked at in isolation.

2.12 Support available and support needed when working with ADHD learners

Inclusive education has been accepted as the appropriate approach to the education of children with disabilities both at the international level and in South Africa. Inclusive education requires that the framework within which education is delivered is broad enough to accommodate the needs and circumstances of every learner in society equally. Effective implementation of inclusion requires the collaboration of multiple participants. However, despite a common basis for inclusive education, there are significant variations in the conceptualisation and implementation thereof in the South African policy framework (Murungi, 2015).

Loebenstein (2005) points out that South African educational policy frameworks are broad and lack attention to develop cost effective strategic priorities and specific areas of intervention. There is tension between changing the structure of education and changing the process of education which still influences progress in translating policies into action (Ramdass, 2009).

Although the implementation for an inclusive education policy is considered to be the appropriate strategy for addressing the diverse needs of all learners in South Africa, the implementation of this policy is complex.

Following broad educational policy frameworks could affect how educators manage learners in a classroom, especially those learners presenting diverse needs. Without specific guidelines or management strategies, educators could feel out of their depth when dealing with these learners. Lack of supportive structures in place could have an adverse effect, not only on the educator, but also on the classroom as a whole. If educators are to follow an inclusive educational framework, support is needed to involve the changes and modifications in the approaches, structures and strategies that are to be implemented.

The Western Cape Education Department (WCED) has eight education districts, divided into 49 circuits, following a redesign process in 2006/07 (WCED, 2012). These education districts are responsible to facilitate an integrated approach to service delivery by all levels of government, in line with national policy. The circuit is responsible for bringing professional support closer to schools via strong circuit teams. The district is responsible mainly for education management, to evaluate and build capacity in the schools and support the learning and teaching process by identifying and addressing learner, educator and institutional needs (Department of Education, 2001). The head office is responsible for research, policy development, strategic planning, coordination, monitoring and evaluation (WCED, 2012). District services include advice and coordination on curriculum, education for learners experiencing barriers to learning and institutional management and governance.

The WCED is currently in the process of building and strengthening the capacity of the circuit teams to provide specialised support where this is most needed. Circuit teams will include advisors who will be responsible for institutional management and governance at schools, school administration, and general education and training.

Also, there will be advisors for special needs, including school psychologists, social workers and learning support advisors (WCED, 2012). Through the collaboration with provincial departments of education and the departments at district level, access should be provided to educators for appropriate pre-service and in-service training and professional support services. Developing the professional capacity of educators in curriculum development and assessment would then be addressed through the support of district support teams (Ladbrook, 2009).

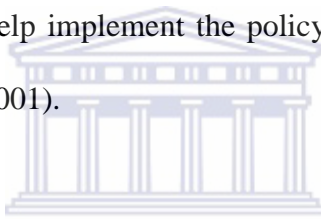
There is little research in South Africa that identifies whether support offered to educators has been successfully and effectively implemented and how educators perceive the support offered to them in building an inclusive environment for children presenting with ADHD symptoms. Also, more research needs to be conducted to establish whether the district support teams and institutional-level support teams provide on-going and regular curriculum, assessment and instructional support (Department of Education, 2001:49) as indicated by the Education White Paper 6.

The ecosystemic theory of Bronfenbrenner (1979) is an appropriate theory to be used to model inclusive education. There are layers in the systems that interact with each other to produce certain outcomes within the systems theory. There are barriers located within the learners, within the centre of learning, within the education system and/or within the broader social, economic and political context (Stofile, 2008). If educators are required to work within a flexible curriculum and with a diverse range of learners, they need to have on-going support, a variety of teaching strategies, resources, training and assistance for the management of special needs learners and a complete school support system (Holtz & Lessing, 2002).

The White Paper 6 emphasises that training is necessary to maximise the participation of all learners, and to develop their individual strengths so as to enable them to participate critically in the process of learning.

Education has to take on the difficult task of turning diversity into a constructive contributory factor of mutual understanding between individuals and groups (UNESCO, 2007).

It is suggested that inclusive education should take place within a system of formal and informal support (Department of Education, 2001). Inclusive education acknowledges that learners are different and unique, and recognises that learning is not confined to formal schooling. Support should be provided by districts and learner support educators (LSE's), employed by selected districts in the Western Cape to service schools with support for educators and learners, as well as the parents and community. Learners identified as having barriers to learning are referred by the school to the learner support educators. The LSE provides support which includes tuition for the learners and individual educational programmes for the respective classroom educators to implement. The LSE is needed to help implement the policy as outlined by the Education White Paper 6 (Department of Education, 2001).



Inclusive education should operate within a system with a network of support. When one considers the changes that must take place in education for the implementation of inclusion in South Africa, one must also consider whether these are realistic and able to be implemented. In order to implement inclusive education effectively to learners presenting with ADHD, educators need to be supported from the top down, through the Department of Education right down to their colleagues and head of the school. Well supported educators and learners will result in a system that can operate effectively and efficiently, creating an environment conducive to learning and education that is of an international standard.

2.13 Conclusion

This chapter examined how the theoretical framework of Bronfenbrenner and the systems, specifically the mesosystem, interact with one another in an educator's physical environment and social context. Every child and educator develops within the context of various ecological systems, and a change in one system has the ability to affect every other level of systemic functioning. The literature review was discussed, as well as the prevalence and characteristics of ADHD, the South African education system, assessment and treatment of ADHD, as well as classroom and behavioural management strategies that have proven to be effective. The challenges encountered in the classroom as well as the support required, and support needed, were also discussed in this chapter. The methodology will be discussed in the following chapter.



CHAPTER 3

METHODOLOGY

3.1 Introduction

This study is placed within a qualitative methodological framework. Qualitative methods strive to provide in-depth, personal descriptive accounts of phenomena in the world (Winter, 2000). This form of inquiry is appropriate and beneficial when the primary aim of the study is to tap into the insider's perspective and the focus of research is to understand and describe, rather than explain and predict human behaviour (Babbi & Mouton, 2001). An additional focus is to identify, sort and analyse meaning according to the subjective perception, understanding and behaviour of the participants within their context (Ulin et al., 2002). Furthermore, the researcher will take the social, cultural, political and physical environment of the participants into consideration to explore and interpret the link between these elements.



3.2 Research Design

The research design is exploratory in nature. Exploratory studies are valuable in social scientific research as this yields new insights and comprehension into a topic. Exploratory research is conducted when a problem has not been clearly defined, and research is needed to gain familiarity with the phenomenon in order to formulate a more precise problem. It is the initial research into a hypothetical or theoretical idea, in an attempt to lay the groundwork that could lead to future studies, or to determine if what is being observed might be explained by an existing theory (Babbi & Mouton, 2001). The design classification is of text and numeric form. The key research questions are of an exploratory nature. The strengths of this design are high construct validity, in-depth insights and establishing rapport with participants.

The limitations are a lack of generalisation of findings; non-standardisation of measurement, data collection and analysis can be very time consuming (Mouton, 2000). However, using this type of research assisted and facilitated our understanding of the phenomenon under study.

3.3 Research Setting

The study was conducted in the Cape Town Metropole region. The participants were drawn from educators working in urban mainstream schools with learners from culturally, racially and socio-economically diverse settings. The schools attract learners from low, middle and middle to upper income communities.

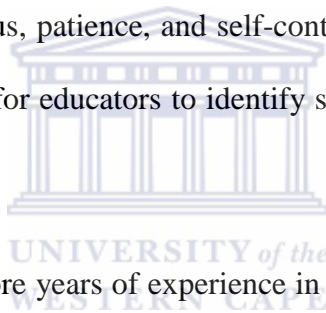
It is important to be mindful in acknowledging the diversities that exist as well as the resources and services available to these communities. The schools situated in Tableview and Athlone attract learners residing in low-income communities. Research indicates that low-income communities can consist of environments that are characterised by high levels of unemployment, poverty, substance abuse, crime and low levels of education (Evans, 2004). The schools situated in Rondebosch and Bellville attract learners from middle and middle-upper income communities. These communities are well resourced, have higher levels of education and higher levels of employment. These schools are situated between 10 to 20 kilometres from Cape Town's central business district.

3.4 Participants

Purposive sampling was used for this study as it allows the researcher to enlist participants who are knowledgeable on the subject matter and able to reflect on and share their experiences (Bernard, 2002). The schools that were included in the sample contain educators who may have knowledge of the research issue and the capacity and willingness to participate in the research.

The chosen schools were known to have learners presenting with ADHD symptoms due to previous established relationships with the schools. The participants for the study were selected from four mainstream schools from the Northern and Southern Suburbs in the Western Cape. Schools from lower, middle and middle-upper classes were chosen to accommodate for a diverse group in terms of race, gender and socio-economic status. The outcome would not be used for comparative purposes but to include a more heterogeneous sample (Patton, 2002).

The focus of the study was on Grade 1 educators as they often have the task of identifying learners who display the symptoms of ADHD and may then refer them to other professionals for treatment. Usually by the time a child reaches 7 years of age, the school setting may highlight a child's problem relating to inattention, impulsivity, and hyperactivity because classroom activities demand an increased amount of focus, patience, and self-control. Specific scholastic and academic goals are required, making it easier for educators to identify symptoms of ADHD demonstrated by learners (Reiff, 2011).



Educators that have two or more years of experience in teaching in government schools were included in the study. By possessing some work experience, it was assumed that educators would have gained some knowledge and experience in working with learners presenting with ADHD and would be able to provide valuable feedback during the semi-structured interviews. Educators from different classes, backgrounds and cultures were included to provide a heterogeneous sample. A total of twelve individual interviews were conducted. Creswell (2013) recommends using a small sample as it enables the researcher to gain an in-depth perspective and understanding.

3.5 Method of Data collection

The data was collected by means of semi-structured interviews, whereby the researcher interviewed classroom educators individually from four different schools. Interviews took place during and after school hours, depending on the educator's availability.

Participants were encouraged to share their personal experiences with the researcher. The individual interviews were recorded by means of a recording device. The participants were interviewed at their work establishment after permission was granted by the principals of the chosen schools.

Some of the advantages of using semi-structured interviews, according to Bless and Higson-Smith (2000), include that the interviews actively involve the respondent in the research process, allows interaction between the interviewer and interviewee to be less restrictive, and thereby allows the researcher to gain access to people's ideas and thoughts at a deep and profound level. They also provide a systematic and comprehensive procedure for establishing the issues to be discussed in the interview.

Furthermore, some of the challenges of using semi-structured interviews are that they can be time consuming and the generalizability of the data can be limited; the depth of the information might be difficult to analyse; and obtaining valuable data is dependent on the skill of the researcher and the ability of the respondent to articulate meaning to the responses.

The data collection instrument was subdivided into two sections. Section one contained a biographical information sheet which included demographic items. Section two consisted of the interview schedule and focused on questions relating to ADHD knowledge possessed by the educator, classroom interventions and management strategies. Challenges encountered within the classroom were also explored, as well as the support structures that are currently in place, and support required, when working with these learners. Further probing questions focused on the type of skills and competencies needed when working with these learners, and effective teaching methods used in the classroom. The biographical section took approximately five minutes to complete and the individual interviews each took approximately 45 minutes to complete.

Each interview unfolded uniquely. Several of the educators seemed slightly nervous to be interviewed for fear that their opinions and views would be exposed to others, and that confidentiality would be broken. Others were relaxed and willing to share their experiences with ease. Some educators were also afraid that they would say the wrong thing or struggled with verbalising their opinions.

The establishment of rapport was imperative to allow the participants to feel comfortable and at ease in order to answer the questions to the best of their ability. Once the interviews were underway and rapport was built, the nervous tension seemed to dissipate and the answers to the questions seemed more genuine.

The tone set at the beginning of the interview was light-hearted in order to put the participants at ease and feel comfortable during the interview process. As the interview progressed it became more serious as personal challenges and encounters were discussed. Questions related to the participants' personal experiences were favoured, as participants could speak honestly and openly about their perspectives. Participants were more sensitive to questions relating to the support available and support required by them, as they were fearful that senior members of the school would think that they were complaining and view them in a negative light. Some of the questions had to be rephrased when uncertainty surfaced and clarity was needed. Most of the participants shared their stories with much emotion which was heartfelt and enlightening.

3.6 Procedure

The research was conducted in the Northern and Southern Suburbs following ethics clearance from the Higher Degrees Committee of the University of the Western Cape as well as the Research Office of the Western Cape Education Department.

After permission had been granted from the principals of the selected schools, a suitable time and venue was decided upon to conduct an information session with the selected participants to explain the study in more detail and to gain informed consent. The participants had been informed that all of the information collected would remain confidential. The participants were required to sign an informed consent form prior to the interview. Scheduled meeting times were decided upon at which the individual semi-structured interviews were held.

As a means of evaluating the content validity of the interview guide, two pilot interviews were conducted before the actual data collection phase commenced. The pilot interviews served as a guide as it allowed the researcher to assess if the questions posed were phrased appropriately, if the meanings of the words used were appropriate, and if the questions asked provided relevant information in answering the research questions.

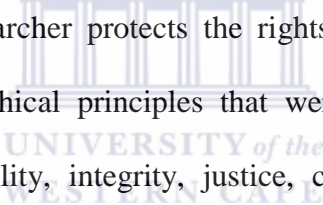


3.7 Data Analysis

The information gathered from the individual interviews was analysed by thematic analysis to examine and focus on themes that occur within the data. Thematic analysis is a process for encoding qualitative information and draws attention to organisation within the data, creating a rich and detailed description of the data collected. The encoding requires a specific 'code' which could be a list of themes, a complex model with themes, indicators, and qualifications that are causally related; or something in between these two forms (Boyatzis, 1998). The first entry into analysis was to critically assess the data as it was collected, ascertain gaps in the information, and to commence with various concepts and establish a framework to assess if the data collected would provide more information on issues relating to the research topic. Each interview transcription was read, summarized and analysed by means of developing themes.

The themes that were established with the preliminary analysis were scrutinized once data had become saturated and an extensive view of the topic acquired. Each theme was placed in a specific file once it had been contextualised. There were essentially five major steps that made up the levels of analysis. The steps were data organisation and reduction, thematic analysis, coding, interpretation and conclusion drawing. The advantages of using thematic analysis is that it can provide flexibility, it is able to summarise key features of a large body of data, offers a detailed description of the data set, it can highlight similarities and differences across the data set and can generate unanticipated insights (Braun & Clarke, 2006). The themes derived from the data will be discussed in the next chapter.

3.8 Ethics



It is imperative that the researcher protects the rights and well-being of the participants included in the study. The core ethical principles that were adhered to throughout the study included trustworthiness, responsibility, integrity, justice, confidentiality, anonymity, informed consent and the respect for human rights and dignity (Babbie & Mouton, 2001). Permission was granted from the University of the Western Cape's Higher Degree Committee and ethics clearance was given for the proposed study. Permission was also obtained from the Western Cape Education Department to conduct research in primary schools in the Cape Town area in order to access the educators involved in the study. The rights and responsibilities were explained to the participants. Participation was voluntary and permission was obtained from all the participants.

The study was explained to all the participants, an information sheet was handed out explaining the study, and a consent form was signed. The individuals had the right to withdraw at any point. The benefits, rights and responsibilities were explained to the participants in the information sheet (Appendix A).

Permission was obtained to record the participants during the individual interviews. All biographical information sheets and interviews were treated with anonymity and confidentiality. Only the researcher involved with the study and supervisor had access to the data obtained from the interviews. Pseudonyms were used for all the participants in order to protect confidentiality. Access to any particular publications that the individuals were involved in would be shared with the participants. Relevant referral numbers were provided to vulnerable participants.

3.9 Trustworthiness

In order to establish trustworthiness in a qualitative study, the use of credibility, confirmability and dependability need to be considered (Lincoln & Guba, 1985). Credibility is one of the most important factors in qualitative research and presents an accurate description or interpretation of human experience so that people who have shared that experience would immediately recognise the descriptions. Credibility was obtained through the continued engagement with the participants as the interviews that were conducted were in-depth. It is a judgement of the trustworthiness of a piece of research (Angen, 2000).

Dependability is associated with the consistency of the findings and is closely linked to credibility as the demonstration of the former ensures the latter (Lincoln & Guba, 1985). With confirmability one must ensure that the study's findings are objective and the result is that of the experiences and ideas of the participants, rather than the preferences of the researcher (Lincoln & Guba, 1985). Dependability and confirmability were achieved through the use of an audit trail (Morrow, 2005). The audit trail kept track of all the records and activities used for this project that would affect the advancement of it, which would then be examined by the project supervisor.

3.10 Reflexivity

As a researcher involved in a qualitative study, it is important to be aware of the role one plays in the research process and the way knowledge is constructed. Having facilitated ADHD learners at a mainstream school, as well as providing play-based therapy to learners displaying ADHD symptoms, it was important to be mindful and sensitive to educators' own experiences and accounts of working with these children. One must maintain critical self-reflection and be cognisant of one's own views and opinions and ensure that it is the participants' views that are represented at all times throughout the process of research in order to enhance trustworthiness, transparency and accountability.

It is also important to be aware of any bias throughout the research process as one has the responsibility of actively constructing, collecting, selecting and interpreting the data (Finaly, 2002). Even though only female participants were available to be interviewed, as they made up majority of the staff members at all the schools that were included in the study, the researcher was aware of gender bias and how it could influence the study.

Also, some of the participants interviewed were second language speakers of English which could have influenced the quality of the interviews. The language barrier was constantly negotiated as not all participants could express themselves and articulate their thoughts equally well in English. The risk of coming across as if inferring inadequacy on the parts of the educators were taken into account and the participants were made aware of the power and prestige wielded by being interviewed in the English language.

CHAPTER 4

PRESENTATION OF FINDINGS

4.1 Introduction

In this chapter the themes that emerged from the data collection are discussed. The themes extracted from the data reflect the experiences of the selected educators who were confronted with the implementation of inclusive education in their classrooms, specifically, how to manage children presenting with ADHD symptoms. The researcher interviewed 12 classroom educators individually from four different schools using semi-structured interviews. Interviews took place during and after school hours, depending on the educator's availability. The participants were all Grade 1 educators, chosen by the principals of the respective schools.

4.2 Description of the participating schools



All four schools were situated within the Cape Town Metropole and were English medium schools. The schools were located within a range between low to middle-high income communities. Two of the schools attracted learners from low income communities with nearby informal settlements. One attracted learners from a middle income community and the other from a middle-higher income community. The educators were from different ethnicities, all ranging between mid-20 to mid-60 in age. Classroom sizes varied from a minimum of 26 learners, to a maximum of 42 learners.

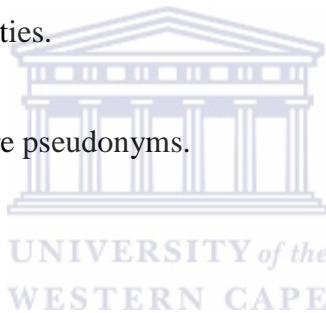
Table 1**Demographic profile of participants**

Participants	Gender	Age Group	Number of years teaching	Post Level	Socio-economic area of school	Number of learners in class	Number of learners presenting with ADHD symptoms
Participant 1 Anne*	Female	46-50	21-25	Educator	Urban, Middle-high income	29	9 (5 diagnosed)
Participant 2 Brenda*	Female	46-50	21-25	Educator	Urban, Low income	40	5
Participant 3 Candice*	Female	41-45	16-20	Educator	Urban, Low income	38	1
Participant 4 Delia*	Female	26-30	0-5	Educator	Urban, Middle income	32	3
Participant 5 Elliana*	Female	61-65	26-30	Educator	Urban, Middle income	31	11
Participant 6 Fran*	Female	26-30	0-5	Educator	Urban, Middle income	31	3
Participant 7 Gillian*	Female	41-45	16-20	Educator	Urban, Low income	39	2
Participant 8 Hannah*	Female	46-50	26-30	Educator	Urban, Middle-high income	26	3 (1 diagnosed)

Participant 9 Ivy*	Female	26-30	6-10	Educator	Urban, Middle-high income	28	7 (3 diagnosed)
Participant 10 Jill*	Female	31-35	0-5	Educator	Urban, Low income	33	4
Participant 11 Kate*	Female	46-50	21-25	Educator	Urban, Low income	37	2
Participant 12 Lara*	Female	46-50	21-25	Educator	Urban, Low income	42	5

A total number of 12 participants from four different schools were included in the semi-structured interviews. All participants were female, ranging between 26 and 65 years of age. Classroom sizes varied from a minimum of 26 learners, to a maximum of 42 learners. The schools were situated in low to middle/high income communities.

* The names of all the participants are pseudonyms.



4.3 Interviews with the educators

Educators were asked questions relating to the following objectives:

- To explore management strategies used by Grade 1 educators in the classroom working with learners presenting with ADHD symptoms.
- To identify the challenges these educators encounter in the classroom environment when working with learners presenting with ADHD symptoms.
- To explore the support currently available to these educators as well as the support required when working within the context of an Inclusive Education Framework.

4.4 Management strategies used by Grade 1 educators:

The first aim of the study was to explore the management strategies used by Grade 1 educators in the classroom who work with learners presenting with ADHD symptoms. The number of learners varied from 26 to 42 learners per class. Managing a diverse range of learners of this class size is a challenge in itself, and the management strategies used, differed with each educator. Almost all of the educators felt that the classes were too big, thus the idea of creating an inclusive environment, proved to be a challenge. Some of the management strategies used in the classroom, according to the participants, were as follows:

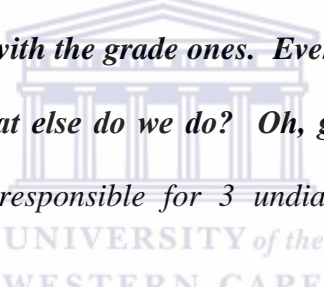
“Well, recently I’ve bought some yellow tape, and I’ve taped, like, areas in my classroom and I’ve got one ADHD child that got his whole area available just to him, so he can have his stuff lying all over the floor if he wants to, as long as he doesn’t pass that area and disturb other children. Um, otherwise, I just have a chart that they can see how they behaving you know, that if they excellent they get a prize at the end of the week and if they in consequence then they go to break detention...Other than the tape, nothing really.”

(Ivy, 26-30 age group, responsible for 3 diagnosed and 4 undiagnosed ADHD learners, 0-5 years teaching experience)*

“I feel very strongly that the, all learners, they must like me and I try to earn their respect because then I feel we can get along, so I’m always working on that...First of all, I have to be very sure that I am very prepared when I come to work so that I’m not distracted while I’m teaching. I do have to separate them from each other, so that they’re not interfering with each other.

The buddy system works where a child who is very restless and highly disorganised, which is one of the characteristics, has a buddy who will be able to help with organisation of their stationery and their books and their clothing, so I find that helps. This year I've created little fidget corners.” (Jill, 31-35 age group, responsible for 4 undiagnosed ADHD learners, 0-5 years teaching experience)*

“Oh, gosh, there so many things. They like competition, find they love to have competition, but the competition must happen there and then. It mustn't be dragged out for weeks and weeks and weeks. It's got to be today and the next day maybe and they like something new all the time, so I have to use my initiative all the time to find something that will appeal to them and the incentive is usually five minutes early for break. Fortunately, that does work with the grade ones. Even if they leave the classroom first, to them it's quite exciting. What else do we do? Oh, gosh there's so many things I try.”
(Delia*, 26-30 age group, responsible for 3 undiagnosed ADHD learners, 0-5 years teaching experience)



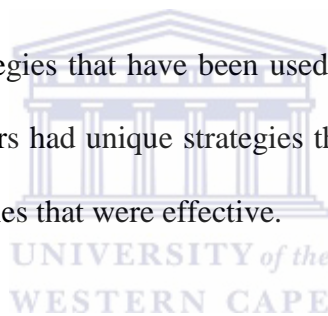
“I try to keep them busy all of the time. I try to find out what they are interested in.”
(Candice*, 41-45 age group, responsible for 1 undiagnosed ADHD learner, 16-20 years teaching experience)

“ It's very frustrating at times when I need to get things done, especially when I do assessments but other days, I really try my best. I will sometimes put a ball under his foot and so he can have movement but even that doesn't work sometimes because after he's done that, then it's enough of that, then they will stand up and he will go walk around, so I should always keep an eye on him.

What I normally do is, I time him with this activity and I normally give him a short activity that he can manage and then I give him another one, probably have a half an activity of the class, so I give him half, half, then it doesn't look like a lot. So, we will manage half the activity, when he is done, he will come to me, and I will give him the other half without him knowing.” (Hannah, 46-50 age group, responsible for 3 undiagnosed and 1 diagnosed ADHD learners, 26-30 years teaching experience)*

“I have got a reward system there and that reward system helps a lot but I do a lot of praise.” (Lara, 46-50 age group, responsible for 5 undiagnosed ADHD learners, 21-15 years teaching experience)*

These highlight several strategies that have been used by educators that have proven to be useful and successful. Most educators had unique strategies that helped them in the classroom and some struggled to implement strategies that were effective.



It seemed that through trial and error, effective interventions were discovered by some and others received training or researched the best methods of working with learners presenting with ADHD symptoms. Some educators felt that more training or workshops/courses were necessary to increase their skill and understanding of how to work with learners presenting with ADHD more effectively. Others felt that they were better equipped as they became more experienced educators and were given classes with more children presenting with various conditions such as ADHD. Most educators felt that training at tertiary level needed to include more content on ADHD as it is a common condition and one that can be helped and managed through specialised skills, knowledge and understanding.

4.5 Challenges educators encounter in the classroom environment

Several challenges manifest in the classroom on a day to day basis. Some of the challenges were that educators felt that they had not received much training on ADHD, therefore lacking knowledge on how to apply management strategies aimed at the children presenting with ADHD symptoms in their classrooms.

“With the classes being so big it’s very difficult. So um, definitely, we definitely need to change the sizes of our classrooms and maybe, I would say, incorporate other strategies.

So, I don’t know? We going to have to try and gain knowledge somewhere, to help us with actual strategies that are going to work but we’ve tried quite a few things and it’s, you know, it doesn’t really help.” (Jill, 31-35 age group, responsible for 4 undiagnosed ADHD learners, 0-5 years teaching experience)*

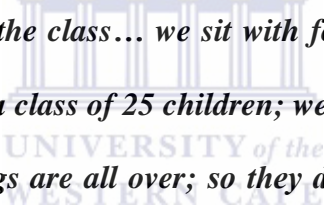
“I haven’t received any extra training, only the ones during my training in College.” (Fran, 26-30 age group, responsible for 3 undiagnosed ADHD learners, 0-5 years teaching experience)*

On the other hand, several educators felt that they had a good understanding of ADHD and the complexities that exist within this disorder, but did not always possess the necessary skills to be able to deal with it effectively on their own. They often needed to consult with other professionals who they had access to.

“It certainly wasn’t training from forty years ago but along the way, we have had courses and we’ve had to research.

We've also just had to learn on our own but at present we have a very focused social worker who has given us presentations dealing with ADHD which has lead us to a better understanding.” (Elliana, 61-65 age group, responsible for 11 undiagnosed ADHD learners, 26-30 years teaching experience)*

Almost all the educators felt that the number of pupils in their classes were too many. This reduced the space in the classroom, creating an environment amendable to distraction and disorganisation. With an increased number of learners, it was a challenge to attend to all the learners' needs and diversities. There was less individualised attention and group work was challenging to manage. With smaller, more manageable classes, educators could spend less time on classroom management, and more time on instruction.

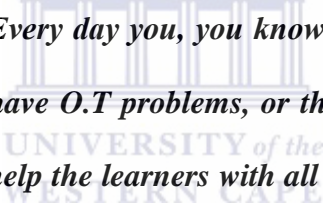


“Definitely less children in the class... we sit with forty Grade ones; we are sitting in a classroom that was built for a class of 25 children; we are sitting with forty. The desks are on top of each other, the bags are all over; so they don't have the space as well. I don't know if that is maybe one of the things that they need, but sitting with a class of forty, that doesn't help much.” (Brenda, 46-50 age group, responsible for 5 undiagnosed ADHD learners, 21-25 years teaching experience)*

“Oh, I think you must have less children because just the other day, I have had quite a few children absent and one who was diagnosed with ADHD, he told me, “Teacher, today I had a nice day”, because I could give you more attention. So, whatever he wants to ask me, I can answer him and we can work closely with him because there wasn't a lot of children in class. So, preferably up to 25 children, I think that's impossible.” (Ivy, 26-30 age group, responsible for 3 diagnosed and 4 undiagnosed ADHD learners, 0-5 years teaching experience)*

Amongst the educators, there was a general consensus that managing a diverse range of learners in a classroom was a challenge. Learners came from different cultural and racial backgrounds and some do not speak English as their first language, thereby creating barriers to learning in the classroom.

“At the moment, I have 38 and I have learners that also have a language barrier... learners that are exposed to formal schooling for the very first time. So they all come from different backgrounds, so some were at preschool, some come straight from home. Some who are at nursery school and then also now the language barrier makes it quite hard.” (Candice*, 41-45 age group, responsible for 1 undiagnosed ADHD learner, 16-20 years teaching experience)



“Um, it’s very challenging. Every day you, you know you got the learners that need help with other things, like they have O.T problems, or they have other problems and you, to try accommodate and to try help the learners with all these different diverse needs and on top of it having about 3 to 4 learners with ADHD in your class, it’s not a joke, it’s very difficult. Um, you find that you actually can’t give each learner what they need. You can’t help each learner.” (Jill*, 31-35 age group, responsible for 4 undiagnosed ADHD learners, 0-5 years teaching experience)

Lack of resources posed as a problem for some schools, as they did not have the financial capacity to provide educators with help from other professionals and the appropriate resources needed for a more effective learning outcome. Providing learners who need additional help in order to reduce the barriers to learning through targeted support structures was a huge challenge for educators, often leaving educators feeling overwhelmed and over-worked.

“But I am sure if I have more training with insight into the kids and into how they actually think and how to motivate them and how to get them motivated and how they tick, it might be easier to get them to work (interrupted)...how to get them the resources and what will make them work.” (Jill, 31-35 age group, responsible for 4 undiagnosed ADHD learners, 0-5 years teaching experience)*

Learners who do not speak English often struggle in the English medium schools and are therefore not able to meet their scholastic requirements, or reach their full potential. Limited English proficiency affected some learners’ self-esteem and confidence negatively, causing them to participate less actively during lessons to avoid embarrassment and being teased.

“It would be nice to have learners that are six turning seven. At the moment, we have five and a half year olds and not all of them do struggle keeping up with what is happening in the classroom, so it would be nice if they are age appropriate, if the classes are smaller. Also if the ones with learning barriers could first attend the grade R in English and then come to grade one... because of them, they come straight from home where they were just exposed to isiXhosa at home, so very first time in grade one. It’s a new person in front of them trying to teach them the curriculum and all they hear is blah, blah, blah...” (Lara, 46-50 age group, responsible for 5 undiagnosed ADHD learners, 21-15 years teaching experience)*

The CAPS curriculum contains a lot of content which some educators find difficult to get through. It does not always allow space for learners who learn differently in the classroom. Adapting the curriculum slightly to suit the needs of the learner presenting with ADHD symptoms could benefit the child.

“Um, the CAPS curriculum at the moment is very overwhelming. There’s quite a lot to get through... And not a lot of time. So it definitely needs to, I would say, if it was adapted for ADHD learners it would be fantastic. Um, just maybe the pace of our work and you know, maybe bringing in a little more exciting things. Our curriculum has got very boring.”

(Ivy*, 26-30 age group, responsible for 3 diagnosed and 4 undiagnosed ADHD learners, 0-5 years teaching experience)

“Yes, it’s too much work for them. The teachers cannot cope with all the work. What about that poor learner? Do you understand what I’m saying and all the assessments they have to do. I think it’s just too much for them and now with the grade ones even having to do Afrikaans, I feel, it’s the work load, it’s too much for them, for grade ones really. I mean, when we were at school, we didn’t have to write assessments. It’s like a formal assessment they do and we’re busy with assessments now, so I feel sorry for those learners.” (Fran*, 26-30 age group, responsible for 3 undiagnosed ADHD learners, 0-5 years teaching experience)

“They don’t cope...the other learners, you expect them to colour in, you expect them to decorate their work, you expect a lot from them, whereas the ADHD child, will literally do the bare minimum. They won’t even stick in their worksheets, so half the time it’s just you know, slipped into their book. It’s not cut, it’s not stuck, um, it’s not coloured, it’s, it’s terrible. They will literally take the same time to fill in 10 sums. They will just write the answers and that’s their work. They don’t cope.” (Lara*, 46-50 age group, responsible for 5 undiagnosed ADHD learners, 21-15 years teaching experience)

Lack of parental involvement is often a huge challenge, especially in schools from lower socio-economic environments.

Educators have to cope with learners whose parents struggle with poverty, illiteracy, unemployment and challenging socio-economic circumstances. In many poor households, parental education is sub-standard, and parents tend to be overworked and overstressed. Low-income parents are often overwhelmed by diminished self-esteem, depression, and a sense of powerlessness and inability to cope. In many instances, parents in poverty find it difficult to understand and converse with their children's teachers and because of their lower occupational status and poor literacy levels do not consider themselves equal to teachers (Evans, 2004).

“We do approach the parents and then, mostly they say that they don't have the resources, they don't have money to pay for it then we do say that well we've got the department we can go through the department, you have to apply, but that takes such a long time, so but we do apply, we do try our best to get through and try what we can. They do say that they are going to try (parents)... They are and they promise everything and they promise when they sit in front of you but as soon as they walk out this door, nothing happens.” (Kate*, 46-50 age group, responsible for 2 undiagnosed ADHD learners, 21-25 years teaching experience)

“Oh, my word, you know, especially the learners that has ADHD or my slower, my weaker learners. You never get the parents, even when we have meetings, our parent meetings; you don't see the parents that you really need to speak to. They don't come to meetings. Even if you call them in to discuss the child's academic progress, you know, half of them come, the other half doesn't come, so that makes it very hard for the teacher, and you're trying your utmost. You're trying everything just to help this child to get to a certain, you understand and then you don't get that from the parents, the assistance from them.” (Gillian*, 41 -45 age group, responsible for 2 undiagnosed ADHD learners, 16-20 years teaching experience)

“They, they kind of say “Well my child’s at school and it’s your problem”. Um, you know I deal with my child when he’s at home; you must deal with the child when he’s at school. I have recommended um, about at least 3 to 4 assessments this term that’s just past and a lot of them, they brush it off and there’s nothing wrong and um, you try explain that you know, you need to, the child needs to work, he’s not going to cope in grade 2 with the workload and all of that increases and um, they don’t. They don’t involve themselves, they try and work with you...I mean you get the one or two that are great, but a lot of them there’s no support, they don’t work with you.” (Candice, 41-45 age group, responsible for 1 undiagnosed ADHD learner, 16-20 years teaching experience)*

There are high expectations of educators having to meet the diverse needs of all their learners. Preparing lessons that are pitched appropriately to the variety of needs of the learners in the classroom is a challenge. Educators do not always have the capacity to accommodate the different needs of the learners, causing other children to become restless when spending too much time helping those falling behind. The time it takes to help learners experiencing barriers to learning significantly takes away from the time spent with other learners in the class, resulting in less inclusive classrooms.

“It’s a bit difficult carrying over the things that I’ve learnt in class because the classes are so big, so I can’t spend all the time because I would like to sit with the children that are struggling but other kids tend to get very restless.” (Delia, 26-30 age group, responsible for 3 undiagnosed ADHD learners, 0-5 years teaching experience)*

Extra time is needed to complete tasks. This will help educators to assess the learner’s knowledge more accurately as it enables learners to complete tasks more thoroughly.

“It’s impossible. They don’t complete tasks. They always need extra time. They always need a ‘Come on you can do it’; ‘Just colour two more pictures for me’. Often I find if they get given a break (speaks to class), if they’re given a break, then I say to them ‘Ok, if you just finish up to here for me, then they like, if you say, ‘ Here’s your work, finish it’, then they like, then it’s too much. As soon as you say, ‘Here, here’s a timer’. I’ve got a timer; it’s got a red thing that goes away. If I say, ‘When the red is gone, you’ve got to finish up to here’. That’s one of my main tactics I use.” (Hannah, 46-50 age group, responsible for 3 undiagnosed and 1 diagnosed ADHD learners, 26-30 years teaching experience)*

“They find it very difficult because of their lack of concentration. They’re always looking around and they take very long, where they actually begin with the task. They might find their pencil needs sharpening, off to the bin to the pencil. Then they will discover they don’t have a colour they need, so they will be off to another table to go and get the colour.” (Candice, 41-45 age group, responsible for 1 undiagnosed ADHD learner, 16-20 years teaching experience)*

Lack of teaching assistance in very big classes makes teaching those learners experiencing barriers to learning more challenging, as educators are spread thinly throughout the day and need to get through the curriculum. Teaching assistants can be a key resource in a school. They relieve an educator’s workload and can help improve classroom behaviour. Most teaching assistants are employed with specific responsibilities to focus on and work with individual children that experience barriers to learning, providing much needed support. The assistance they give educators and learners can lead to reduced teacher workloads and greater job satisfaction.

“I think, a lot of it is their problems are misunderstood and some people see them as naughty. I think a big problem to me is that they, they just need a different type of attention. They need more personalised one on one attention (speaks to class). And I’m not able to give that to them. I feel like it’s to their disadvantage. You know, it’s like in the day when a child like needs me and his struggling to concentrate, then to go sit next to him is like, you can’t do that. That’s always frustrating for me. I don’t have time to spend the one on one time with a kid in need.” (Hannah, 46-50 age group, responsible for 3 undiagnosed and 1 diagnosed ADHD learners, 26-30 years teaching experience)*

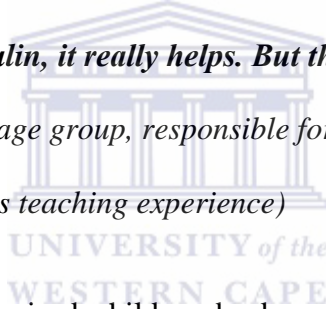
Helping parents understand that their child needs extra help posed as a challenge for many educators. Many parents seem to have limited knowledge about ADHD. Admitting that one’s child may experience barriers to learning that requires intervention and treatment may be frightening to some. Other parents felt reluctant to attach a ‘label’ to their child, particularly to a disorder such as ADHD that is often misunderstood and stigmatised.

“It’s to try and explain to the parents that their child is not concentrating and their child is disturbing. I can see the parents find it very hard to be able to understand this, so one finds that in grade one, the parents are maybe in denial and when the pace is faster in grade two, workload is heavier in grade two then maybe they will consider taking a few steps...” (Candice, 41-45 age group, responsible for 1 undiagnosed ADHD learner, 16-20 years teaching experience)*

Some educators found it difficult to get distracted children back on track. Learners presenting with ADHD symptoms often talk out of turn, move around the room, have trouble following instructions, forget to write down homework assignments, have trouble with operations that require ordered steps and distract others.

Classrooms that include several learners presenting with ADHD symptoms could cause multiple distractions, creating a demanding and challenging environment for educators to work in.

“Mmm, what are the most difficult challenges? I would say, getting them to complete their tasks, and especially when you’re doing assessments because in grade 1 they mostly are individual, so while you’re doing assessments with the other learners they are all over the place. They’re not sitting down completing their work, so it would definitely be to getting them to finish their work and getting them to concentrate when you are teaching on the mat. Those, all those little things are vital. And while you’re teaching, their minds are all over the place, or they’re picking up a little speck on the mat. So those are challenges every day that you, there’s not much you can do other than, if they assess them, they’re on Ritalin, it really helps. But then again you can’t put them all on Ritalin.” (Hannah*, 46-50 age group, responsible for 3 undiagnosed and 1 diagnosed ADHD learners, 26-30 years teaching experience)



Others found getting disorganised children back on track a challenge. Disorganisation, forgetfulness and losing items can become a major problem for learners diagnosed with ADHD. Keeping track of projects, homework, and important information needed to manage their learning is a challenge. Inattentive learners often miss attention to detail, which can result in missing out on important information that is needed to help organise and manage their learning outcomes.

“Well, just getting them to complete tasks is huge for me, and finding things. We’re just about to start an activity, ‘I can’t find my pencil’, ‘I can’t find my glue’, you know, just complete disorganisation.” (Anne*, 46-50 age group, responsible for 5 diagnosed and 9 undiagnosed ADHD learners, 21-25 years teaching experience)

“... you can see they are not with you, they’re somewhere else, and just getting the child on board for me it is so difficult. You know your stress level actually as an educator just goes up, because you are trying to get that child here, and it is just not happening.

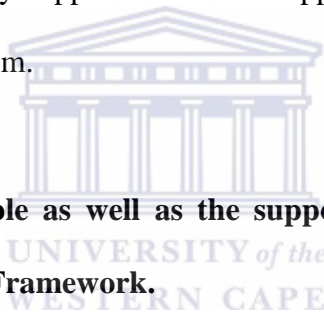
And I just find for me that is so difficult, just to get the child on board with what I’m doing, and you know going back to having a class of forty, doesn’t help much. You know and they drain you. So I just find that I would like to have a balance where I can have them on board all times, and I just find that very difficult, getting them there.” (Lara*, 46-50 age group, responsible for 5 undiagnosed ADHD learners, 21-15 years teaching experience)

“Teaching when I’m trying to be positive when making sure that they learn without parents supporting you in the diagnosis and finding out what is really happening (interrupted). Because then it becomes hard for the child to progress positively and for you as a teacher to be fair and kind all the time because it is difficult, because they don’t finish work and they are the monkeys of the class, the clowns, the ones that never follow the rules. And they also bother the others.” (Brenda*, 46-50 age group, responsible for 5 undiagnosed ADHD learners, 21-25 years teaching experience)

“The challenge for me is that a child in grade one definitely loses info if he’s ADHD and to me that’s the scary part, is that, he sits here, what does he take in? Does he take anything in and you only realise that when you start assessing him by the end of the term, then you think, ah, he really didn’t, he wasn’t actually here that day. He was here but not here, ja. The fact that he is busy losing info that’s extremely important to him. To me, that’s the biggest challenge.” (Fran*, 26-30 age group, responsible for 3 undiagnosed ADHD learners, 0-5 years teaching experience)

Working in a diverse environment often creates a variety of challenges that manifest in the classroom.

It is evident that educators in South Africa are therefore challenged in several ways when working with learners from different ethnicities and socio-economic environments, as well as learners with different emotional and intellectual needs. Managing these diverse classrooms comes with lots of skill, determination and experience, and educators need to be supported within their respective schools and different levels of the education system. Exploring the support available and support required when working within the context of an inclusive education framework is therefore imperative if educators are to be helped in practical and meaningful ways. The discussion below indicates how educators are currently supported and the support deemed necessary in creating an inclusive environment in the classroom.



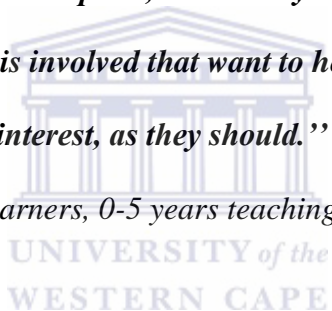
4.6 Exploring the support available as well as the support required when working in the context of an Inclusive Education Framework.

Exploring the support available as well as the support required varied vastly amongst the different schools. Those situated in the lower socio-economic environments generally had less resources and support available to them, whereas those attracting learners from a higher socio-economic environment were supported more when working in the context of an Inclusive Education Framework. As mentioned previously, lower socio-economic schools struggle to get parental support, but higher socio-economic schools do better in this aspect.

Participants from the lower socio-economic school said:

“ Most of them are in denial about it and they are very anti even getting their child assessed because they’re so nervous of Ritalin and how it’s going to affect the child’s brain and any other chemical imbalance it’s going to bring about. Ya, they mostly open to herbal stuff, but they, they even don’t really want to go there. They’re not interested. They’re in denial.” (Lara*, 46-50 age group, responsible for 5 undiagnosed ADHD learners, 21-15 years teaching experience)

“When I call parent meetings or when the school has parent meetings, it is often the parents that you don’t need to see, the kids are doing well that attend these meetings. Kids that have academic difficulties in class, when you call upon their parents to come and see you very often they don’t pitch, so it is very difficult. From time to time we do actually get the parent that is involved that want to help their child. The majority of parents I don’t think show interest, as they should.” (Jill*, 31-35 age group, responsible for 4 undiagnosed ADHD learners, 0-5 years teaching experience)



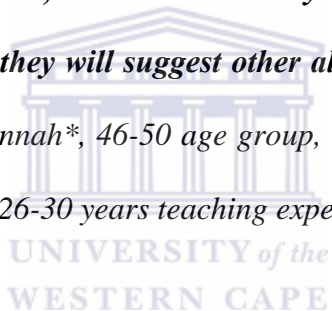
One of the participants from the higher socio-economic environment commented:

“Um, some are completely involved, and some are completely uninvolved. Um, they, a lot of them support where they can. They change diets, you know, often parents and I liaise everyday with them. Um, some are like, they want to go straight to medication; some will delay the process...” (Ivy*, 26-30 age group, responsible for 3 diagnosed and 4 undiagnosed ADHD learners, 0-5 years teaching experience)

Educators from the lower, middle and higher socio-economic schools mostly supported each other when needed. They relied on relationships with staff members to bounce their ideas, uncertainties and stress off each other.

“There isn’t any. No, um no, there’s definitely no, no support. I would say my, my support would definitely be my colleagues. I think between the school, um, there is no psychological services but my psychological service is my colleagues (giggles).”
(Candice*, 41-45 age group, responsible for 1 undiagnosed ADHD learner, 16-20 years teaching experience)

“We do have a learning support team, where we discuss learners with behavioural problems. It can be anything like children that are hyper, children that struggle academically, children, it’s actually for learners at risk of repeating the grade, so we do meet up. We have a team of teachers. Everything that is mentioned gets minuted. I, what have I tried to, you know, these kids I will lay down the methods and they will say, “Have you tried this?”, or they will suggest other alternative methods that I can maybe use in class to assist.” (Hannah*, 46-50 age group, responsible for 3 undiagnosed and 1 diagnosed ADHD learners, 26-30 years teaching experience)



“We do have a school psychologist but that’s one school psychologist for over twenty years for the district. We don’t see him often. He was here to come test certain learners that was referred to be tested and he just came to do that and nothing further, so if we do request maybe, he will come but we don’t know. So, maybe he will come late in the year, then it will be too late, so I think maybe a psychologist will also maybe have programmes for the district to assist the teachers.” (Delia*, 26-30 age group, responsible for 3 undiagnosed ADHD learners, 0-5 years teaching experience)

“...I attend courses and I talk to colleagues outside the school and I make sure I am up to date. I even go onto the net and overseas I see how they work it out.”(Fran*, 26-30 age group, responsible for 3 undiagnosed ADHD learners, 0-5 years teaching experience)

“We have a school psychologist but she works, she like private. She only works two days a week. Um, we don’t really have anyone professional. We just have each other and we often speak about it at grade meetings, giving each other advice. Often, sometimes if a child has had a psychometric assessment and you get feedback from a psychologist themselves. And if it’s a really nice psychologist they’ll come in and give you advice, and you know, give you list of what they experience, and give you tips on how to deal with it. So we do have that, but there’s no like, official support system for us.” (Anne, 46-50 age group, responsible for 5 diagnosed and 9 undiagnosed ADHD learners, 21-25 years teaching experience)*

The educators did not all receive support from other professional health practitioners such as Psychologists, Occupational Therapists, Speech Therapists, etc. at their respective schools and some felt they needed that kind of extra support. The findings revealed that the lack of support sometimes made them feel that they were thrown in the deep end and simply had to find their own way in terms of management strategies and interventions. The findings also suggest that most of the educators were not getting sufficient support from the Department of Education in order to provide the effective support to the neediest learners as expected. This could result in educators not providing optimal or sufficient support to learners experiencing barriers to learning and development. Lack of relevant support services could therefore be a major stumbling block towards effective implementation of inclusion and ultimately to enhance learning for the children.

More structured support is required from the Western Cape Education Department, as well as the principals of the respective schools. Also, when receiving formal training at a tertiary institute there needs to be more information and teaching on topics addressing special needs education in order to help educators better understand learners with barriers to learning.

In order to successfully plan and implement inclusivity, there is a need for support at various levels of the education system in the Western Cape.

4.7 Conclusion

The purpose of the research was to determine what management strategies were utilised by grade 1 educators when working with learners presenting with ADHD symptoms, the challenges faced by educators in the classroom and the support available and required when working with these learners in an Inclusive Education System. In this chapter, the researcher presented a synopsis of the empirical research done through semi-structured individual interviews with educators. In the following chapter the findings of the research project are summarised, conclusions are drawn, and limitations and recommendations for the improvement of practice and further research are discussed.



CHAPTER 5

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter concludes the study with a discussion of the main findings integrated with previous research identified in chapter 2, as well as the theoretical framework. Limitations of the study are discussed and recommendations for further studies are established.

5.2 Attention Deficit Hyperactivity Disorder

ADHD is associated with poor grades, poor reading and increased grade retention. Children presenting with ADHD symptoms show symptoms of inattention, hyperactivity, and impulsivity. With or without formal diagnoses of ADHD, learners usually show poor academic performance and educational outcomes (Loe & Feldman, 2007). It is often negative behaviour in school, being one of the main features of ADHD, which emphasises the need to bring the child presenting with ADHD to clinical attention. Children presenting with ADHD show an increase in repeated grades, the use of remedial academic services, and are more likely to be expelled or suspended, compared with controls. Additionally, children presenting with ADHD use more services, including tutoring, remedial pull-out classes, after-school programmes, and special accommodations (Loe & Feldman, 2007).

Academic difficulties for children with ADHD begin early in life. Symptoms are commonly reported in children aged 3 to 6 years, and preschool children with ADHD or symptoms of ADHD are more likely to be behind in basic academic readiness skills (DuPaul et al., 2001).

Grade 1 educators often have the challenging task of identifying these children once the academic outcome becomes more important, and may try to help to facilitate management strategies and early interventions.

The symptoms of ADHD can be dramatically reduced through psychopharmacological treatments which can improve children's abilities to handle general tasks and demands (Barkley, 2015). Medication has been shown to improve academic productivity as indicated by improvements of scores on quizzes and worksheets, the amount of written-language output, and homework completion. However, stimulant medication does not normalise skills in the area of learning and applying knowledge (Evans et al., 2001).

Behavioural interventions for ADHD, including behavioural parent training, behavioural classroom interventions and positive reinforcement are effective in reducing symptoms of ADHD, but less effective than psychostimulant medications in reducing core symptoms. Behaviour management is equivalent or better than medication in improving aspects of functioning, such as parent-child interactions and reducing oppositional-defiant behaviour (Barkley, 2006). Given the chronic nature of ADHD and its impact on multiple domains of function, it is likely that multiple treatment approaches are needed.

In terms of the theoretical framework that focused on the bio-ecological systems theory, the multi-dimensional and complex model emphasised that the child's development is shaped by the varied systems of the child's environment as well as the interrelationships among the different systems. The educator therefore has an important role to play in this environment, as learners spend much of their day in a school setting, thereby influenced tremendously by those they come into contact with there. A reciprocal relationship exists between learners and educators, where the environment influences the learner, and the learner influences the environment.

Learners and educators cannot develop in isolation, but within a system of relationships that also include family and society at large. South African learners often come from multicultural, multiethnic and diverse backgrounds which create interesting yet challenging classroom environments to work in. Educators need to take all these factors into account when working with these learners, accommodating them in their classrooms, meeting their individual needs and helping them to achieve their potential.

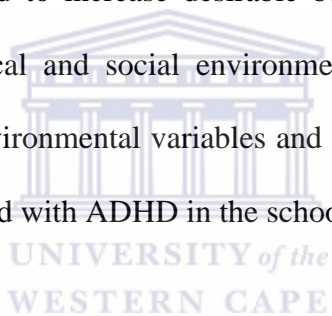
The bio-ecological model has very practical implications for educators who seek to help and support learners presenting with ADHD symptoms. Examples of practical implications would be for educators to communicate clearly and concisely with their learners, and foster learning by using multiple instructional strategies such as direct instruction and modelling. They should avoid seeing deficits in learners presenting with ADHD symptoms and strive to help them reach educational success. They should reconsider and adapt their pedagogical practice in light of how students respond to their teaching and establish reciprocal learning opportunities within their classroom. Also, making use of local contexts and resource materials in their teaching and using resources within the community could help support learners and their learning.

Successful interventions, programming, and supports need to go beyond learning and their immediate environment. Managing learners presenting with ADHD symptoms requires all systems to work together, rather than working in isolation, in order to improve the educational opportunities of these learners. Educators should avoid seeing children as isolated individuals, but rather focus on more culturally appropriate and contextually inclusive approaches that focus on children who are part of a much larger ecological system.

If successful management strategies are utilised and expanded on, challenges the educators encounter are addressed and dealt with appropriately and successfully, and adequate support is provided for educators to operate in an inclusive classroom environment, then these learners will have the opportunity to flourish and be helped to overcome the many obstacles and barriers they face on a daily basis.

5.3 Exploring management strategies used by Grade 1 educators in the classroom when working with learners presenting with ADHD symptoms.

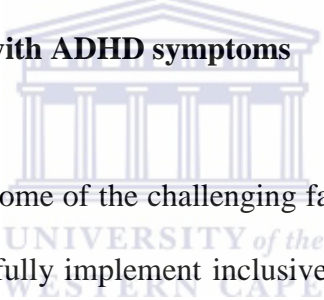
Management strategies in the classroom setting are important when targeting problem behaviour. These strategies are used to increase desirable behaviour and decrease inappropriate behaviour by modifying the physical and social environment in the classroom. The strategies discussed earlier attempt to alter environmental variables and have been proved to reduce many of the problematic behaviours associated with ADHD in the school classroom.



The educator should strive to consistently apply specific strategies outlined earlier within the classroom setting. By applying consequences linked to a token economy or reward system to positive and negative learner behaviour exhibited in the classroom, the educator will attempt to bring about a change in behaviour. Self-monitoring skills and the ability to problem-solve within the classroom setting must be taught in order to encourage learners to take responsibility for their own actions. Both self-monitoring and problem solving are taught and supervised by the educators in the classroom.

Self-management skills also need to be taught through cognitive-behavioural skills. Using antecedent interventions such as classroom rules and manipulation of environmental conditions, the educator focuses on changing the environment for the learners with ADHD, to make learners' desirable behaviours more likely and their inappropriate behaviours less likely to occur (Tannock, 2007). The position of seating and social interaction is important in the classroom management. Also, the rate of engagement in instructional tasks correlates in a positive way with academic performance. Many strategies can benefit all learners, not just those presenting with ADHD symptoms, therefore reducing the stigmatisation of learners experiencing barriers to learning in the classroom (Brock et al., 2009).

5.4 Identifying the challenges educators encounter in the classroom environment when working with learners presenting with ADHD symptoms



The objective is to determine some of the challenging factors which ought to be addressed in order to enable educators to successfully implement inclusive education in South African primary schools. The Learning Support Model of the Western Cape Education Department was designed to systematically address barriers to learning in primary schools in the province. Research indicates that the current learning support model does not provide effective learning support to all learners experiencing barriers to learning in mainstream primary schools in the Western Cape. Constraints that contribute to this situation can be identified on all levels of the education system including the macro and micro systems (Dreyer, 2008).

Herewith some of the challenges are discussed as described by the participants. It was found that there is not enough time in the day to complete all of the tasks and the administration that is part of the curriculum due to an unrealistic workload that needs to be covered.

With the variety and large amount of children in one class, it is often difficult to attend to all the children equally and provide all the necessary attention the child with ADHD symptoms might need. Often there is lack of resources, negative attitudes from mainstream educators who cannot cope with the demands and pressure placed on them in the classroom, and lack of support needed from the parents and Western Cape Education Department.

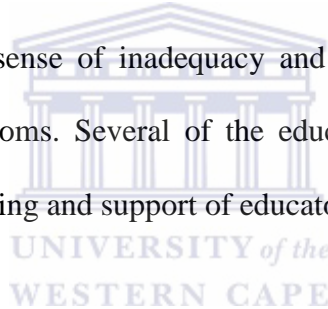
Educators are often expected to perform duties of other professionals which included educator support and parent support. Educator support would primarily be conducted by District Officials whilst parent support included support that should be provided by school psychologists or school social workers.

The participants stated that they often try to adapt and differentiate the curriculum for learners experiencing barriers to learning. Over and above their formal teaching training, informational support is provided to educators in the form of hand-outs containing information about ADHD and other barriers to learning, but many of the participants felt that they needed more practical tips on how to manage learners presenting with ADHD symptoms. Often educators felt overwhelmed emotionally and tired physically from having to address all of the issues surfacing in the classroom. Also, without special needs educators who could withdraw learners from mainstream classes for small group instruction, mainstream educators struggle to cope with the demands placed on them as there is not always additional time available during the day or resources available to help children in need of extra attention and help.

5.5 Exploring the support currently available to educators as well as the support required when working in the context of an Inclusive Education Framework.

One of the objectives of this research is to determine the type of support currently available to educators as well as the type of support that is required when working within the context of an Inclusive Framework. The establishment of an inclusive education system in South Africa requires the development of appropriate support services at both school and district level. The South African Education Department proposes the use of a systemic approach, utilising district support teams.

A number of attempts have been made on government and district level to support and train educators on inclusivity and special needs but some educators still feel threatened by new demands placed on them and experience a sense of inadequacy and not always being in control of the situation presenting in their classrooms. Several of the educators felt that serious consideration should be given to the adequate training and support of educators in the South African context.



The unique aspects that contribute to the South African context place certain demands on educators when they are employed to educate learners in a multi-cultural and diverse classroom setting. Some educators experienced the diversity in a positive light, seeing it as a means to encourage and educate youth in accepting one another's differences and promoting tolerance and mutual understanding. On the other hand, some educators felt that these diversities and special needs, such as ADHD, posed as a challenge and influenced their ability to teach. Support at school level is therefore necessary if educators are to embrace differences and the special needs they identify in their learners, as it fosters a sense of community, responsibility and commitment to each other.

In terms of the support currently available to educators, some of the participants interviewed responded that they often struggle to involve the parents of those learners presenting with ADHD symptoms. Without parental involvement, homework often does not get completed and reading material does not get practiced. This could be detrimental to the learner who struggles in the classroom who then has incomplete work and falls further behind with no external support. Support from parents, or caregivers, is imperative in order to facilitate confidence and work ethic in these learners who may be lacking in confidence and ability to complete tasks or follow instructions.

Educators who teach learners who come from low-income communities felt that they did not always receive adequate equipment and resources to accommodate learners with ADHD effectively and thus could not provide them with quality education. Poor physical conditions, such as overcrowding in the classrooms and inadequate facilities, affected educators' abilities to pay attention to the individual needs of those with barriers to learning, such as learners presenting with ADHD symptoms. They felt that some learners were "falling through the cracks" and "being left behind". Lack of necessary funding and support for schools in need could prevent the successful inclusion of these learners and their abilities to make a meaningful contribution in the classroom.

A limitation of existing support structures occurred in schools situated in low-income communities. Educators did not always know who to turn to in times of need and often relied on other colleagues for necessary support. Support structures were not always clearly defined, or did not always exist, and support structures that were in place did not always work effectively. Also, there seemed to be a lack of necessary funding needed to employ teaching assistants, which in turn resulted in educators having to deal with several learners presenting with ADHD symptoms and a struggle to manage these learners and attend to all their needs.

Responding to and supporting learner diversity should be a shared responsibility of educators, support providers, families, peers and communities within an inclusive environment. Educators in South Africa are faced with many pressures of proposed changes in the education system and need effective management strategies in order to overcome challenges presented to them. This can be done through effective supportive structures through policy, district support teams, supportive programmes in schools and support provided by parents. By addressing prospective areas that concern educators, it is hoped that inclusive education could help in implementing effective inclusive practices in their classes.

5.6 Limitations of the study

The researcher was exposed to a number of limitations at the onset of this study. These included limited literature and research available on ADHD in South Africa, specifically on how ADHD is managed by foundation phase educators in the classroom, the challenges they encounter as well as the support available and support required when working with these learners.

Permission to conduct the research at the chosen schools was a challenge as several principals felt that there was not sufficient time to allow for the data collection to take place or they felt that this research would not benefit the school in any positive way. Also, once access was granted to conduct research, all Grade 1 educators from the chosen schools were invited to participate in the study, however, only some responded positively. Many were apprehensive about being interviewed and others did not have time in their busy schedules to be interviewed one-on-one. The time for data collection was negotiated to accommodate the educators' rosters so that minimal disruption occurred at the school. The data collection process was longer than expected due to the lack of, or delayed, response from principals as well as apprehension of research being conducted at the school.

Also, at times, the language barrier was a challenge for several educators, but this was overcome through rephrasing some of the questions, in order to make it more easily understandable by the participants. The above-mentioned limitations justify further research in the pursuit to understand how ADHD can be better managed in the classroom, how educators can be better supported and how they can be helped to overcome challenges faced in the classroom.

5.7 Significance of the study

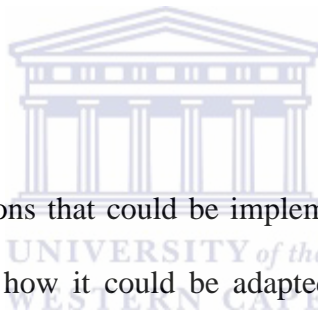
The research explored whether Grade 1 educators working in mainstream schools in the Western Cape were using management strategies in the classroom when working with learners presenting with ADHD symptoms. Understanding the challenges that primary school educators in mainstream schools encounter when working with ADHD learners within the context of an Inclusive Education Framework is imperative in order to create suitable interventions that can be implemented in schools. Exploring the type of support currently available and support required when working with ADHD learners, will help educators to work more effectively and create an environment that is more conducive to learning.

The information resulting from this study can be beneficial for educators generally and relevant specifically for those involved with curriculum development and training of teachers who work with ADHD learners. The results highlight appropriate practical management techniques and strategies as a guide that can be practically utilised and adapted to fit the South African classrooms in order to improve the academic and social outcomes for ADHD learners. This will benefit the ADHD learners by providing an environment where their well-being and full potential is held in high regard. However, those learners who are indirectly affected by ADHD learners in the class will also benefit. Although research on ADHD and how it is managed in the classroom is a fast growing field globally, research in South Africa still remains limited.

5.8 Conclusion

It is clear that the social, political and cultural influences have impacted on the transformation of education in South Africa. The study revealed that there is a strong need for educators to develop their management strategies in the classroom when working with learners presenting with ADHD symptoms. Also, there are many challenges that need to be overcome in order for the education system in South Africa to become truly inclusive. More support is also needed to better equip these educators to perform their duties successfully. The research indicates that when these challenges are addressed, educators will be both better supported and disposed, towards the implementation of inclusive education transformation in South Africa.

5.9 Recommendations



There are several recommendations that could be implemented in order to address the current inclusive education framework and how it could be adapted to support educators working with learners presenting with ADHD symptoms.

- This study recommends that the Western Cape Education Department review the inclusive education policies in order to enable total inclusion as envisaged by the authors and initiators of Education White Paper 6.
- Tertiary institutions offering formal teaching degrees or diplomas should include modules with a strong focus on theory that is integrated with pedagogy and practice related to different barriers to learning in South Africa's inclusive education system.

- Educators experienced many challenges in the classroom as the schools were often under resourced, leaving the educators to assume the roles of many other professionals or health practitioners, thereby exploiting the educators to some degree. More support from other professionals like Occupational Therapists, Speech and Language Therapists or Educational Psychologists is therefore necessary to enhance the learning environment and make it more inclusive for all learners. It is more effective to address the needs of learners with barriers to learning using a multi-disciplinary approach.
- Inadequate time for learning support was another major challenge. With this in mind, the stakeholders, such as the Department of Education that is responsible for the implementation of Inclusive Education, must try to facilitate learning for all learners and for the educators directly affected so that the philosophy of supporting learners experiencing barriers to learning may be enhanced. Educators did not always feel supported by the schools, the district and the Department of Education, which is necessary.
- Behaviour management strategies should form an integral part of teacher training at a tertiary educational level. Educators should be involved in regular workshops where they interface with other teachers on the behaviour management problems they encounter with ADHD learners in the classroom in a forum where possible solutions can be discussed.

These recommendations emerged from extensive research into the available literature on ADHD in South Africa and the inclusive education system. The Western Cape Education Department should consider these recommendations as doing so might enhance and strengthen support to educators and to learners experiencing barriers to learning, specifically those presenting with ADHD symptoms.

By addressing the challenges and finding practical management strategies that can be used in the classroom, total inclusion of learners can be possible in South Africa if educators are well equipped and skilled. It is therefore hoped that this study will foster innovation in facilitating the effective functioning of educators within the framework of Inclusive Education. Furthermore, valuable insights gained from this study could contribute to the schools in South Africa within the context of Inclusive Education and help educators to better manage and understand how to work with learners presenting with ADHD symptoms.



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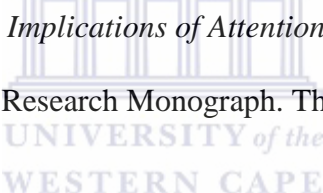
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The logo of the University of the Western Cape is centered in the background. It features a classical building facade with a pediment and columns. Below the building, the text 'UNIVERSITY of the WESTERN CAPE' is written in a serif font, with 'UNIVERSITY of the' in a smaller size and 'WESTERN CAPE' in a larger size.

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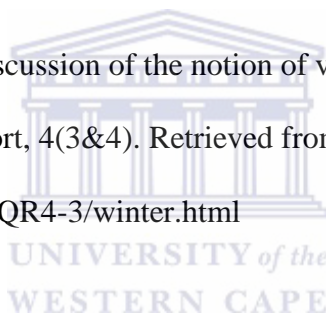
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Appendix A



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959, Fax: 27 21-959

E-mail: chs-deansoffice@uwc.ac.za

INFORMATION SHEET

Project Title: The exploration of the management strategies used by educators working with learners presenting with Attention Deficit Hyperactivity Disorder (ADHD) symptoms in mainstream schools in the Western Cape.

What is this study about?

This is a research project being conducted by Gina Stockigt at the University of the Western Cape. We are inviting you to voluntarily participate in this research project because you are grade 1 educators working with a diverse range of learner in your classroom. The purpose of this research project is to explore the current management strategies used by grade 1 educators working with learners presenting with ADHD symptoms in mainstream schools in the Western Cape. A further aim is to identify the challenges these educators encounter as well as the type of support currently available and further support required when working within the context of an Inclusive Education Framework.

What will I be asked to do if I agree to participate?

You will be asked to complete a biographical information sheet and take part in an individual interview at your school. The biographical information sheet will ask you biographical questions which include demographic items. The individual interview will collect information regarding ADHD knowledge possessed by the educator, classroom interventions and management strategies used by the educator, challenges encountered in the classroom and support structures that are in place and that are required when working with learners presenting with ADHD symptoms. The completion of the information biographical sheet and individual interview should take approximately 50 minutes in total. *The interview will be tape recorded to assist with data analysis.*

Would my participation in this study be kept confidential?

We will do our best to keep your personal information confidential. To help protect your confidentiality, the information you provide will be totally private; no names will be used so anonymity is ensured. The information will be treated with confidentiality and anonymity. Your name will not be reflected in the questionnaire or in the individual interview. If we write a report or article about this research project, your identity will be protected to the maximum extent possible.

What are the risks of this research?

There are no known risks associated with participating in this research project.

What are the benefits of this research?

Information on this topic is limited. This research is not designed to help you personally, but the results can be useful in terms of development for educators working with learners presenting with ADHD symptoms. Since information about this research in South Africa is relatively limited, the information resulting from the study can add to the current information available about ADHD and how it is managed in the classroom, strategies that are used by other educators and well as how these management strategies can be explored and implemented in the classroom. We hope that, in the future, other people might benefit from this study through improved understanding of the management strategies used by South African educators working in mainstream government schools with learners presenting with ADHD symptoms.

Do I have to be in this research and may I stop participating at any time?

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

Is any assistance available if I am negatively affected by participating in this study?

Every effort has been taken to protect you from any harm in this study. If however, you may feel affected you can be referred to your nearest community resource for assistance.

What if I have questions?

This research is being conducted by Gina Stockigt in the Psychology Department at the University of the Western Cape. If you have any questions about the research study itself, please contact Gina Stockigt at: 0825922760 or email ginajinx@yahoo.com. Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Professor Jose Frantz (Dean of Faculty of Community and Health Sciences)

Tel no: (021) 959 2631

Fax: (021) 959 2755

Email address: chs-deansoffice@uwc.ac.za

This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee.





UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959, Fax: 27 21-959

E-mail: ginajinx@yahoo.com

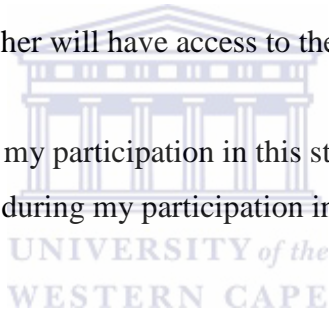
CONSENT FORM

Title of Research Project:

The study has been described to me in language that I understand and I freely and voluntarily agree to participate. My questions about the study have been answered. I understand that my identity will not be disclosed and that I may withdraw from the study without giving a reason at any time and this will not negatively affect me in any way. The interviews will be tape recorded as it assists with the data analysis. Only the researcher will have access to all the information and it will be stored in a secure place where only the researcher will have access to them.

I agree to be audiotaped during my participation in this study.

I do not agree to be audiotaped during my participation in this study.



Participant's name.....

Participant's signature.....

Witness.....

Date.....

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact me:

Study Co-coordinator: Gina Stockigt

University of the Western Cape

Private Bag X17, Belville 7535

Tel: (021) 959 2819 / Fax: (021) 959 3515



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959, Fax: 27 21-959

E-mail: ginajinx@yahoo.com

Letter to Western Cape Department of Education: Permission to do a study.

Title: *The exploration of the management strategies used by educators working with learners presenting with Attention Deficit Hyperactivity Disorder (ADHD) symptoms in mainstream schools in the Western Cape.*

My name is Gina Stockigt, and I am currently completing a Master's Degree in Psychology at the University of the Western Cape. I am involved in research that will explore grade 1 educator's management strategies used with learners presenting with ADHD symptoms in mainstream schools in the Western Cape. A further aim will be to identify the challenges these educators encounter as well as the type of support currently available and further support required when working within the context of an Inclusive Education Framework. Understanding the challenges that educators encounter when working with ADHD learners is imperative in order to create suitable interventions that can be implemented in schools. Exploring the type of support currently available and support required when working with ADHD learners will help educators to work more effectively and create an environment that is more conducive to learning.

ADHD is one of the most prevalent childhood conditions in the world, and I am interested to see how educators in South Africa manage these learners based on their experiences. Teachers are responsible for creating an environment conducive to academic, social and emotional success and are often overwhelmed by the ADHD child who presents with symptoms relating to inattentiveness and/or impulsivity-hyperactivity. These children have trouble holding attention, do not seem to listen when spoken to directly, fail to finish tasks, are forgetful, get distracted, restless, talk excessively, interrupt etc. The structured school environment means that children that display these symptoms are often misunderstood.

It is important for educators to organize their environments according to the diversity of needs of the learners in the classroom.

The current research seeks to add to the limited research in South Africa. The information resulting from this study can be useful for further development and training of teachers who work with ADHD learners. The results will strive to highlight appropriate practical management techniques and strategies as a guide that can be practically utilised and adapted to fit the South African classrooms in order to improve the academic and social outcomes for ADHD learners. This will not only benefit ADHD learners by providing an environment where their well-being and full potential is held in high regard, but also those learners who are indirectly affected by ADHD learners in the class.

Permission is therefore sought to conduct this study at identified schools in the Western Cape, namely in Bellville and Tableview.

The sample of the study will be drawn from a list of educators from three mainstream schools. Participation will be on a voluntary basis and educators can withdraw at any time. Informed consent will be ensured as well as confidentiality. The individual's rights to anonymity will be respected and thus no identification of participants will be reported on in the results of the study. Protection of data will be secured as only the researcher will have access to the information obtained from the information biographical sheet and individual interviews. A resource list with the numbers of support services will be compiled in the event that any of the participants are inadvertently affected during any part of the data collection process.

Your anticipated support is highly appreciated.

Thank you

Gina Stockigt

Appendix D

BIOGRAPHICAL INFORMATION SHEET

SECTION ONE: BIOGRAPHICAL INFORMATION

1.1. My gender is?

	<u>Code</u>
Male	1
Female	2

1.2. My age is?

<u>Age group</u>	<u>Code</u>
20 – 25 years	1
26 – 30 years	2
31 – 35 years	3
36 – 40 years	4
41 – 45 years	5
46 – 50 years	6
51 – 55 years	7
56 – 60 years	8
61 – 65 years	9
Older than 65 years	10



1.3. My qualifications are:

	<u>Code</u>
Academic qualification(s) only (e.g. BA, Med, etc)	1
Professional qualification(s) only (e.g. HDE, FDE, etc.)	2
Academic & Professional qualification(s) (eg.BA, HDE)	3

1.4. Total number of completed years in the teaching profession

<u>Number of years</u>	<u>Code</u>
0 – 5 years	1
6 – 10 years	2

11 – 15 years	3
16 – 20 years	4
21 – 25 years	5
26 – 30 years	6
More than 30 years	7

1.5. My post level is:

	<u>Code</u>
Principal	1
Deputy Principal	2
HOD	3
Educator (Post level 1)	4

1.6. Type of post held by me:

	<u>Code</u>
Permanent	1
Temporary	2
Governing Body	3

1.7. My school is situated in:

	<u>Code</u>
An urban area	1
A semi-urban area	2
A rural area	3



1.8. My school is classified as:

	<u>Code</u>
Junior primary school	1
Senior primary school	2
Combined school	3
Other (please specify)	4

1.9. My school is classified as:

	<u>Code</u>
Inclusive school	1
Special Needs school	2
Full Service school	3
Other (please specify)	4

1.10 How many learners do have in your class?_____

1.11 How many learners do you have in your class presenting with ADHD symptoms?_____



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SECTION TWO: Interview Schedule

1. What do you think the symptoms of ADHD are?
2. What type of training have you received in teaching learners with special needs?
3. What do you feel needs to change in the classroom to better accommodate learners with ADHD?
4. How do you manage the behavior of learners presenting with ADHD in the classroom?
5. What programs should the school offer for the integration of ADHD learners?
6. What are the most difficult challenges faced when teaching learners with ADHD?
7. How do ADHD learners cope with completing tasks in the same amount of time as learners without special needs?
8. How do you manage with the diversity of learners and their needs in your classroom?
9. How does your disciplining style differ when working with a diverse range of learners?
10. How do parents involve themselves in the management of this condition?
11. What type of school support is available to the educators?
12. What type of support school based support is necessary?
13. What type of in-service training opportunities for mainstream educators are available at your school?
14. What type of educational support is available for parents with learners who present with ADHD symptoms?
15. What type of psychological services are there that provide support and guidance to educators when working with learners presenting with ADHD symptoms?
16. What type of psychological services are there that provide support and guidance to learners presenting with ADHD symptoms?