

**TEACHERS' REFLECTIONS ON THEIR SUPPORT FOR LEARNERS WITH  
ATTENTION DEFICIT HYPERACTIVITY DISORDER IN THE FOUNDATION  
PHASE**

**BY**

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## DECLARATION

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I, Kalaivani Soobramoney, declare that Teachers' reflections on the support they receive in teaching learners with attention deficit hyperactivity disorder in the Foundation Phase is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.



.....

Researcher: Ms Kalaivani Soobramoney

DATE:

# **DEDICATION**

*TO MY MUM IN HEAVEN*

*FOR MAKING ME THE PERSON THAT I AM TODAY*

*TO MY HUSBAND AND SONS FOR BEING FOREVER UNDERSTANDING AND  
SUPPORTIVE*

## **ACKNOWLEDGEMENTS**

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## ABSTRACT

The purpose of this study was to explore teachers' reflections on their supporting of learners with attention deficit hyperactivity disorder (ADHD) in the Foundation Phase as well as to understand their interpretation and perspectives of the meaning of ADHD and what intervention strategies they use in dealing with these learners.

The theory guiding this study was based on the ecological systems theory by Urie Bronfenbrenner (1979). This theory focuses on the interaction between the person and the environment. One needs to look at the influence on the child by not only the family but also the immediate surroundings, community networks, and cultural systems, all of which are subject to change.

This study was qualitative in nature and was based on the interpretivist paradigm. It is a case study of six teachers teaching in the Foundation Phase at a remedial school in the south of Durban, KwaZulu-Natal, selected using purposive sampling. The researcher utilised semi-structured interviews to explore whether the participants received support and the challenges they face in managing learners with ADHD.

The study revealed that a lack of required skills to teach learners with ADHD as well as inadequate supports from the SMT, the DBST, and parents were among other challenges facing teachers who are working with learners with ADHD as reflected on by the study participants. The teachers are not suitably trained to deal with learners that have ADHD. The study recommends that the Department of Education to devise in-service programmes to assist teachers with knowledge on how to teach a learner with ADHD. The need for parental awareness or enlightenment on the need to provide emotional supports for their children with ADHD, is suggested. Undergraduate studies should include a compulsory module on special needs education. The Department of Basic Education needs to review its strategy and policy in the best interests of the learner.

# TABLE OF CONTENTS

|   |      |
|---|------|
| DECLARATION.....  | ii   |
| DEDICATION.....   | iii  |
| ACKNOWLEDGEMENTS.....   | iv   |
| ABSTRACT.....   | v    |
| TABLE OF CONTENTS.....  | vi   |
| LIST OF FIGURES.....  | xi   |
| LIST OF APPENDICES.....   | xii  |
| LIST OF ACRONYMS.....   | xiii |
| CHAPTER 1: BACKGROUND AND INTRODUCTION TO THE STUDY.....                  | 1    |
| 1.1 Introduction.....   | 1    |
| 1.2 Background.....   | 1    |
| 1.3 The purpose of the study.....   | 1    |
| 1.4 Statement of the problem.....   | 3    |
| 1.5 Aim of the study.....   | 4    |
| 1.6 Research objectives.....  | 4    |
| 1.7 Key questions.....  | 4    |
| 1.8 Significance of the study.....  | 5    |
| 1.9 Conceptualisation of ADHD.....  | 6    |
| 1.10 A brief literature review.....                                       | 6    |
| 1.10.1 What is ADHD?.....   | 6    |
| 1.10.2 Causes of ADHD.....  | 8    |
| 1.10.3 The role of teachers in the classroom with children with ADHD..... | 9    |
| 1.10.4 Treatment of ADHD: medical intervention.....                       | 10   |
| 1.10.5 Non-medical interventions.....                                     | 11   |
| 1.11 Theoretical framework.....   | 12   |
| 1.12 Research methodology.....  | 14   |
| 1.12.1 Research approach.....   | 14   |
| 1.12.2 Research paradigm.....   | 15   |
| 1.12.3 Research design.....   | 15   |
| 1.12.4 Sampling procedures.....   | 16   |

|                                   |  |    |
|-----------------------------------|--|----|
| 1.12.5                            | Data generation.....   | 16 |
| 1.12.6                            | Trustworthiness .....  | 16 |
| 1.12.7                            | Ethical issues.....  | 17 |
| 1.12.8                            | Data analysis.....   | 17 |
| 1.12.9                            | Generalisability.....  | 18 |
| 1.13                              | Delineations and limitations of the study.....   | 18 |
| 1.14                              | Layout of the thesis.....  | 18 |
| CHAPTER 2: LITERATURE REVIEW..... |  | 20 |
| 2.1                               | Introduction .....   | 20 |
| 2.2                               | Teachers' knowledge and understanding of ADHD.....   | 20 |
| 2.3                               | Strategies and interventions for supporting learners with ADHD.....                                      | 21 |
| 2.4                               | The history of education and introduction of inclusive education in South Africa.....                    | 22 |
| 2.5                               | What is ADHD? .....  | 24 |
| 2.6                               | Causes of ADHD.....  | 27 |
| 2.7                               | Other psychological disorders.....   | 28 |
| 2.8                               | Academic and educational characteristics of children with ADHD .....                                     | 28 |
| 2.9                               | The role of the teacher in the classroom .....   | 29 |
| 2.9.1                             | Knowledge of the teacher .....   | 29 |
| 2.9.2                             | Training of teachers.....  | 31 |
| 2.10                              | Treatment of ADHD .....  | 33 |
| 2.10.1                            | Medical interventions.....   | 33 |
| 2.10.2                            | Interventions .....  | 34 |
| 2.10.3                            | Support offered for teachers of learners with ADHD .....   | 36 |
| 2.10.3.1                          | Additional support needs in special education in South Africa.....                                       | 36 |
| 2.10.3.2                          | The School Management Team (SMT).....  | 36 |
| 2.10.3.3                          | School Based Support Team (SBST).....  | 36 |
| 2.10.3.4                          | The District Based Support Team (DBST).....  | 37 |
| 2.11                              | Theoretical framework.....   | 38 |
| 2.11.1                            | The Bronfenbrenner Model.....  | 39 |
| 2.12                              | Objective based literature review.....   | 41 |
| 2.12.1                            | What are teachers' reflections on their support for learners with ADHD in the<br>Foundation Phase? ..... | 41 |
| 2.12.2                            | Behavioural intervention strategies used by teachers .....   | 42 |

|        |   |    |
|--------|---|----|
| 2.12.3 | Structured routines and schedules to managing symptoms of ADHD .....                  | 43 |
| 2.12.4 | Individualised instruction as a strategy to manage ADHD .....                         | 43 |
| 2.12.5 | Environmental modifications as a strategy to manage ADHD .....                        | 44 |
| 2.12.6 | Teacher-parent collaboration as a strategy to manage ADHD.....                        | 45 |
| 2.13   | Challenges faced by teachers in managing learners with ADHD.....                      | 46 |
| 2.13.1 | Lack of knowledge and understanding of ADHD as a challenge faced by<br>teachers ..... | 46 |
| 2.13.2 | Lack of adequate resources.....   | 46 |
| 2.13.3 | Lack of administrative support .....  | 47 |
| 2.13.4 | Inadequate training/ continuous training .....  | 47 |
| 2.14   | Research Gap.....   | 48 |
| 2.15   | Conclusion.....   | 49 |
| 3.     | CHAPTER 3: RESEARCH METHODOLOGY .....   | 50 |
| 3.1    | Research philosophy.....  | 50 |
| 3.2    | Research strategy.....  | 51 |
| 3.3    | Justification for phenomenology.....  | 52 |
| 3.4    | Justification for qualitative research.....   | 53 |
| 3.5    | Research design.....  | 54 |
| 3.6    | Target population.....  | 55 |
| 3.7    | Research sample.....  | 55 |
| 3.8    | Data generalization.....  | 56 |
| 3.9    | Research questions.....   | 57 |
| 3.10   | Research paradigm.....  | 57 |
| 3.11   | Data analysis.....  | 58 |
| 3.11.1 | Thematic analysis process .....   | 58 |
| 3.11.2 | Use of the literature review in thematic analysis .....                               | 59 |
| 3.12   | Trustworthiness .....   | 60 |
| 3.12.1 | Credibility .....   | 60 |
| 3.12.2 | Triangulation.....  | 60 |
| 3.12.3 | Transferability.....  | 61 |
| 3.12.4 | Confirmability .....  | 61 |
| 3.12.5 | Dependability.....  | 61 |
| 3.13   | Ethical considerations .....  | 62 |

|  |   |    |
|--|---|----|
| 3.13.1   | Confidentiality .....   | 62 |
| 3.13.2   | Seeking consent .....   | 62 |
| 3.13.3   | Elimination of harm.....  | 63 |
| 3.13.4   | Anonymity .....   | 63 |
| 3.14   | Limitations to the study.....   | 63 |
| 3.15   | Summary.....  | 64 |
| CHAPTER 4: PRESENTATION AND ANALYSIS OF DATA ..... |   | 65 |
| 4.1  | Introduction .....  | 65 |
| 4.2  | Data analysis process .....   | 65 |
| 4.3  | Response rate.....  | 66 |
| 4.4  | Results of the study based on the research questions.....   | 67 |
| 4.4.1  | What is the level of teachers' current knowledge and understanding of ADHD symptoms, prevalence, and its impact on learners in the Foundation Phase?.....   | 67 |
| 4.4.2  | What challenges and barriers do teachers encounter in providing effective support to Learners with ADHD, including issues such as limited resources, inadequate training, And a lack of collaboration with parents?.....  | 69 |
| 4.4.2.1  | Role ambiguity and frustration.....   | 69 |
| 4.4.2.2  | Academic performance .....  | 70 |
| 4.4.2.3  | Negative attitudes and stereotypes.....   | 71 |
| 4.4.2.4  | Limited resources.....  | 74 |
| 4.4.2.5  | Inadequate training.....  | 74 |
| 4.4.2.6  | Lack of collaboration with parents and other stakeholders.....  | 75 |
| 4.4.3  | How do teachers currently employ individualized instruction, environmental modifications, and behavioral interventions to support learners with ADHD in the classroom?.....   | 76 |
| 4.4.3.1  | Strategies and intervention used by teachers.....   | 76 |
| 4.4.4  | What areas for improvement can be identified in teacher support for learners with ADHD and what recommendations can be made for enhancing teacher training and professional development in this area, as well as promoting effective collaboration between teachers and parents?..... | 77 |
| 4.5  | Recommendations on answering key research questions.....  | 79 |
| 4.5.1  | Teacher parent collaboration.....   | 79 |
| 4.5.2  | Individualised instruction to learners with ADHD.....   | 80 |

|  |   |     |
|--|---|-----|
| 4.5.3  | Environmental modification in supporting learners with ADHD.....  | 80  |
| 4.5.4  | Teacher training.....   | 81  |
| 4.5.5  | Need for administrative and stakeholder support for ADHD teachers.....                                      | 82  |
| 4.5.6  | Raising awareness and reducing stigma.....  | 82  |
| 4.5.7  | Building teacher self-efficacy.....   | 83  |
| 4.6  | Summary.....  | 84  |
| CHAPTER 5: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS..... |   | 86  |
| 5.1  | Introduction.....   | 86  |
| 5.2  | Summary of findings and recommendations.....  | 86  |
| 5.2.1  | Teachers' lack of knowledge on ADHD.....  | 87  |
| 5.2.2  | Lack of teacher training.....   | 87  |
| 5.2.3  | Teacher intervention and lack of management of ADHD in the classroom.....                                   | 88  |
| 5.2.4  | Screening, identification, assessment and support (SIAS).....   | 89  |
| 5.2.5  | Special needs educational services, school-based support team and management of ADHD within the school..... | 89  |
| 5.2.6  | Parental involvement.....   | 89  |
| 5.2.7  | The use of the ecological systems theory of Bronfenbrenner in understanding the ADHD learner.....           | 90  |
| 5.3  | Suggestions for future studies.....   | 91  |
| 5.4  | Limitations of the study.....   | 91  |
| 5.5  | Conclusion.....   | 91  |
| REFERENCES.....  |   | 93  |
| APPENDICES.....  |   | 113 |

## LIST OF FIGURES

|                                 |    |
|---------------------------------|----|
| Figure 4.1: Response rate ..... | 67 |
|---------------------------------|----|

## **LIST OF APPENDICES**

|   |     |
|---|-----|
| APPENDIX A: INTERVIEW QUESTIONS .....                           | 113 |
| APPENDIX B: PERMISSION LETTER KHULANGOLWAZI SPECIAL SCHOOL..... | 114 |
| APPENDIX C: PERMISSION LETTER KZN DEPARTMENT OF EDUCATION ..... | 115 |
| APPENDIX D: PERMISSION LETTER FROM KZN DEPARTMENT OF EDUCATION  | 116 |
| APPENDIX E: CONSENT LETTER.....                                 | 117 |
| APPENDIX F: ETHICAL CLEARANCE CERTIFICATE .....                 | 119 |
| APPENDIX G: TURNIT IN REPORT.....                               | 120 |
| APPENDIX H: EDITING CERTIFICATE.....                            | 121 |

## **LIST OF ACRONYMS**

**ADHD** – Attention -Deficit - Hyperactivity Disorder

**SBST** – School Based Support Team

**DBST** – Department Based Support Team

**DBE** – Department of Basic Education

**SNES** – Special Needs Education Services

**SIAS** – Screening, Identification, Assessment and Support

**SBST** – School Based Support Teams

**SMT** – School Management Teams (SMTs)

**SNA** – Support Needs Assessment

## **CHAPTER 1: BACKGROUND AND INTRODUCTION TO THE STUDY**

### **1.1 Introduction**

Despite the importance of teachers in supporting learners with ADHD, little research has been conducted in South Africa to explore primary school teachers' reflections on their support for learners with ADHD in the Foundation Phase. Understanding the challenges that teachers face in supporting learners with ADHD and the strategies that they use to provide effective support can inform the development of interventions to support teachers in catering for the specific needs of learners with ADHD, thereby improving the academic and social outcomes of learners with ADHD in South Africa.

Therefore, the aim of this dissertation was to explore primary school teachers' reflections on their support for learners with ADHD in the Foundation Phase in Durban, South Africa.

### **1.2 Background**

Attention deficit hyperactivity disorder (ADHD) is a prevalent neurodevelopmental disorder affecting children's behaviour, academic performance, and social interaction, with a prevalence rate of up to 10% among school-going children in South Africa (Van Dyk et al., 2019). The Foundation Phase in South Africa's education system caters for learners aged 6 to 9 years, and it is during this phase that ADHD is often diagnosed (Department of Education, 2011).

Teachers play a critical role in supporting learners with ADHD. However, research has shown that teachers often lack adequate knowledge and training to effectively support learners with ADHD (Grobler, 2018; Krüger & Nieuwenhuizen, 2020). Thus, it is essential to understand primary school teachers' reflections on their support for learners with ADHD in the Foundation Phase in Durban, South Africa. The study aimed to explore the challenges that teachers face in supporting learners with ADHD and the strategies that they use to provide effective support. The findings from this study will contribute to the development of interventions that support teachers in catering to the specific needs of learners with ADHD, thereby improving the academic and social outcomes of learners with ADHD in South Africa.

### **1.3 The purpose of the study**

According to Donahue and Bornman (2014), Education White Paper 6 was supposed to have built a single integrated educational and training system as opposed to the apartheid system which was separate, and unequal based on race. Further to this was the focus on building an inclusive education and training system (Department of Education, 2001a) which was a new approach towards organising learner support within a single, integrated education system (Department of Education, 2002, p. 1). The White Paper stated that special needs education was fragmented by legislation and policy that separated ordinary "learners" from learners categorised as having "special needs" (Department of Education, 2001b).

Education White Paper 6 (Department of Education, 2001b) addresses the ravages of apartheid in special needs education. Learners were segregated according to race and disability. Special schools were run in accordance with the apartheid policy and white schools for learners with disabilities, were extremely well resourced while black schools for learners with disabilities, were extremely under-resourced.

The Screening, Identification, Assessment and Support Policy (SIAS) (Department of Education, 2014) states that highly specialised support resources, personnel, programmes and facilities for a group of learners with high support needs should be catered for. These learners require access to the same support programme or resources, offered by the Department of Education, which can be provided at site level such as in special schools or specialised settings attached to ordinary schools. This study addresses the lack of support to date, for teachers teaching learners with ADHD in the Foundation Phase, even though the policy states otherwise. This can be seen in the school studied which is a remedial school catering for black learners only, who perform poorly in Isizulu (Home Language), English (First Additional Language) and Maths.

SIAS further identified five specific support provision areas viz.:

- i. The availability of specialist support staff.
- ii. The availability of assistive devices, specialised equipment and teaching and learning support materials.
- iii. The extent to which the curriculum is differentiated to meet the individual needs of learners.
- iv. The delivery of initial and on-going training, orientation, mentorship and guidance; and
- v. Environmental access (once-off and not necessarily ongoing).

According to SIAS, the curriculum to be used is to be more flexible and suitable in addressing the specific needs and abilities of the learner. The Department of Education must develop school-based support teams and district-based support teams to provide support and strength. The purpose of this study, therefore, was to explore teachers' reflections on the support they receive in teaching learners with ADHD, in the Foundation Phase as well as to understand their interpretation and perspectives of the meaning of ADHD and what intervention strategies they could use in dealing with these learners.

The aim was to establish the support that teachers receive from the Senior Management Team (SMT) at the school, the School Based Support Team (SBST) and the District Based Support Team (DBST) in teaching learners with ADHD in the Foundation Phase and to come up with possible strategies that would make a positive contribution and provide a support structure around them.

The study took place at School A in Montclair, Durban KwaZulu-Natal, being the first remedial school for black learners that was started in 1994 at Mzamo Child and Guidance Centre.

As an educator at School A for 24 years, I have noticed an increase in the number of learners that are undiagnosed with ADHD being enrolled at the school. Many learners that I have worked with struggle with the daily challenges of ADHD.

Learners enrolled at the school have other forms of learning disabilities as well, viz.:

1. Dyslexia which is a language-based disability where the learner cannot interpret the written word, it is also referred to as having a reading disability.
2. Dyscalculia is a mathematical disability whereby the learner has difficulty in solving mathematical problems and grasping maths concepts.
3. Dysgraphia is where the learner cannot form letters or write in a defined space.
4. Auditory and visual processing disorders where the learner has difficulty understanding language, despite having normal hearing and vision.
5. Nonverbal learning disabilities, which affects the right side of the brain, causing visual-spatial, intuitive, organisational, evaluative and holistic processing functions.

A severe problem that is experienced is that parents tend to be in denial when a learner presents with signs and symptoms of ADHD. Teachers pursue parents of these learners but are met with resistance. There are of course those learners who have been diagnosed and are on Ritalin or Concerta, which is the medication that is currently used for learners with ADHD. The medication subdues the learner, making him/her concentrate and perform the given tasks.

Teachers are left to somehow manage those that are undiagnosed. This constitutes the majority, which poses a major problem in the teaching and learning environment. It is this aspect that has raised concerns in me as a teacher. The education system has also changed from one of exclusion and separation based on the medical model, to one of inclusion based on the socio-ecological model as implemented in Education White Paper 6 (Department of Education, 2001b).

#### **1.4 Statement of the problem**

Inclusive education is becoming a reality in South Africa (Department of Education, 2001a). Teachers must cope with more learners in their classes and with more learners with diverse needs, such as those who have ADHD. There have been few studies that provide data regarding teachers' knowledge and misperceptions of ADHD in South Africa. In view of the extra support for teachers and the benefits for learners such as study may lead to, it is imperative that such a study be conducted in South Africa, which could compare its findings with the findings of the studies conducted elsewhere. In this way the generalisability of the research results can be strengthened, and the consequent interventions implemented in other countries can be taken into account when making

recommendations for South Africa.

Donahue and Bornman (2014) state that despite the implementation of Education White Paper 6, most learners with disabilities are still being taught in separate schools and not with their peers in inclusive schools. The inclusion of learners with disabilities into mainstream classrooms is now regarded as a human rights concern in the South African context due to the issue of overcoming apartheid. Our education departments have still to deal with many obstacles in the process of transformation to providing quality and inclusive education to learners with disabilities. More studies are required that can provide data regarding teachers' knowledge and the support that they receive from various stakeholders in the education system. Therefore, it is imperative that a study be conducted in KwaZulu-Natal, South Africa, and its findings be compared to studies conducted in other countries in the world.

Aim of the study

### **1.5 Aim of the study**

The aim of this study was to explore primary school teachers' reflections on their support for learners with ADHD in the Foundation Phase in Durban, South Africa. Specifically, the study aimed to identify the challenges that teachers face in supporting learners with ADHD, the strategies that teachers use to support these learners, and the professional development needs of teachers in supporting learners with ADHD. By achieving these aims, the study will contribute to a better understanding of how teachers can effectively support learners with ADHD in the Foundation Phase in South Africa.

### **1.6 Research objectives**

The objectives of this study were:

- To explore teachers' current knowledge and understanding of ADHD, including its symptoms, prevalence, and impact on learners in the Foundation Phase.
- To investigate the strategies and interventions that teachers are currently using to support learners with ADHD in the classroom, including individualised instruction, environmental modifications, and behavioural interventions.
- To examine the challenges and barriers that teachers face in providing effective support to learners with ADHD, including limited resources, inadequate training, and a lack of collaboration with parents.
- To identify areas for improvement in teacher support for learners with ADHD, and to develop recommendations for enhancing teacher training and professional development in this area, as well as for promoting effective collaboration between teachers and parents.

### **1.7 Key questions**

The study was guided by the following key questions:

1. What is the level of teachers' current knowledge and understanding of ADHD symptoms, prevalence, and its impact on learners in the Foundation Phase?
2. What challenges and barriers do teachers encounter in providing effective support to learners with ADHD, including issues such as limited resources, inadequate training, and a lack of collaboration with parents?
3. How do teachers currently employ individualized instruction, environmental modifications, and behavioral interventions to support learners with ADHD in the classroom?
4. What areas for improvement can be identified in teacher support for learners with ADHD, and what recommendations can be made for enhancing teacher training and professional development in this area, as well as promoting effective collaboration between teachers and parents?

### **1.8 Significance of the study**

This study on primary school teachers' reflections on their support for learners with Attention ADHD in the Foundation Phase in Durban, South Africa has several implications for policy and practice. Firstly, the findings of the study will contribute to a better understanding of the challenges that teachers face in supporting learners with ADHD in the Foundation Phase in South Africa. Research has shown that teachers often lack adequate knowledge and training to effectively support learners with ADHD (L. Grobler, 2018; Krüger & Nieuwenhuizen, 2020). This study highlights the need for professional development opportunities that can enhance teachers' knowledge and skills in supporting learners with ADHD.

Secondly, the study provides insights into the strategies that participants used to provide effective support for learners with ADHD in the Foundation Phase. Understanding these strategies can inform the development of interventions to support teachers in catering to the specific needs of learners with ADHD. The development of such interventions can lead to better academic and social outcomes for learners with ADHD in South Africa.

Thirdly, the study contributes to the existing body of knowledge on teachers' support for learners with ADHD in South Africa. Although there is some research on this topic, most studies have focused on teachers' experiences of teaching learners with ADHD rather than their reflections on their support for these learners (L. Grobler, 2018; Krüger & Nieuwenhuizen, 2020). Thus, this study provides a more nuanced understanding of teachers' support for learners with ADHD in the Foundation Phase in South Africa.

Finally, the study's findings are helpful for policy makers and educational practitioners in South Africa. The Department of Basic Education in South Africa has identified the need for interventions that address the diverse learning needs of learners in the country (Department of Basic Education,

2019a). This study's findings raise the need for the development of policies and interventions that support teachers in providing effective support for learners with ADHD in the Foundation Phase.

Overall, this study is significant as it addresses a gap in the literature on teachers' support for learners with ADHD in the Foundation Phase in South Africa. The study's findings can inform policy and practice, leading to better academic and social outcomes for learners with ADHD in South Africa.

## **1.9 Conceptualisation of ADHD**

ADHD is a neurodevelopmental disorder that affects an individual's ability to pay attention, control impulses, and regulate behaviour. The disorder is characterised by symptoms such as inattention, hyperactivity, and impulsivity, which can significantly impair an individual's functioning in various domains, including academic, social, and occupational settings (American Psychiatric Association, 2013).

ADHD is a heterogeneous disorder with multiple aetiologies and complex interactions between genetic and environmental factors. Although the exact cause of ADHD is unknown, research suggests that ADHD may be linked to abnormalities in brain structure and function, particularly in areas responsible for executive functions, such as the prefrontal cortex (Barkley, 2015).

ADHD is diagnosed based on the presence of symptoms that persist over time and are present in multiple settings. The diagnostic criteria for ADHD include symptoms of inattention, hyperactivity, and impulsivity, which can be further classified into three subtypes: predominantly inattentive type, predominantly hyperactive-impulsive type, and combined type (American Psychiatric Association, 2013).

ADHD is a prevalent disorder, with estimates suggesting that it affects around 5-10% of children worldwide (Polanczyk et al., 2014). The disorder can persist into adulthood, with up to 60% of children with ADHD continuing to experience symptoms in adulthood (Faraone et al., 2015). The impact of ADHD on individuals and society is significant, with research showing that individuals with ADHD are at increased risk for academic difficulties, social and emotional problems, substance abuse, and criminal behaviour (Barkley, 2015; Kuriyan et al., 2013).

## **1.10 A brief literature reviews**

According to Colberg (2010, p.12) the first mention of ADHD was in a poem by Heinrich Hoffman in 1865 when he wrote about "fidgety Philip as one who won't sit still, wriggles, giggles, swing backward and forwards, tilts up his chair growing rude and wild" (Myttas, 2001, p. 1).

### **1.10.1 What is ADHD?**

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM) 5, ADHD is defined as a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with

functioning or development. It can manifest itself as either mild, moderate or severe (American Psychiatric Association, 2013). The DSM-5 identifies three types of ADHD:

1. Primarily hyperactive-impulsive type.
2. Primarily inattentive type (formerly called ADD).
3. Primarily combined type: DSM-5 states that those with ADHD appear to be “motor driven” and cannot control their movements. They tend to be very impulsive, impatient and interrupt others without seeing any wrongdoing in their behaviour.

Sadock, Sadock and Ruiz (2015) state that ADHD is a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development as characterised by at least six symptoms from either (or both) the inattention group of criteria and the hyperactivity and impulsivity criteria. These symptoms should have persisted for at least 6 months to a degree that is inconsistent with developmental level, and which negatively impacts social educational and work settings.

The Great Ormond Street Children’s Hospital (2016) in the United Kingdom states that ADHD is a neuro-developmental disorder and refers to behaviour patterns that affect a child in most situations in life experiences, which is evident from an early age, and can go into the adult stage of life. It also emphasises that the condition of ADHD becomes more apparent when the child begins school. It is at this stage that the teacher will notice that the child is fidgety and cannot sit still or concentrate on given tasks in the classroom. ADHD also impacts a child's self- esteem and confidence, not to mention relationships with other children and family members.

Lawrence (2012) states that at school children affected by ADHD look normal physically. Barkley et al. (2000) reports that their physical appearance does not indicate that a problem that exists in their central nervous system or brain; however, they exhibit symptoms that are impulsive, inattentive, and/or hyperactive. Their behaviour is noticeable in that it is inconsistent with age-appropriate attention, impulse control and activity. Learners who have ADHD are distracted by external as well as internal stimuli. The activity is pervasive and is referred to as hyperactivity (Lawrence, 2012).

Topkin, Roman and Mwaba (2015) state that ADHD is one of the most common chronic conditions of childhood. Teachers are a valuable source of information about referral and diagnosis of the disorder. They also play a major role in creating an environment that is conducive to academic, social and emotional success for children with ADHD.

Gicerhia (2019) states that children with ADHD display symptoms of fidgetiness and are very impulsive in their behaviour. They do not seem to give their actions careful thought and they find the need to move about consistently. They cannot sit still for short periods of time. They tend to have poor control over their behaviour as well. Thus, they will find themselves in trouble most of

the time.

According to Sikotane (2016), ADHD may frequently coexist with other major problems. These problems include learning disabilities, they are constantly anxious, have problems sleeping, suffer from depression and anxiety. They are also rebellious in nature and tend to do the opposite of what is expected of them.

### **1.10.2 Causes of ADHD**

According to the American Academy of Paediatrics (2019), ADHD is caused by one or more of the following:

1. Brain anatomy and function. A lower level of activity in the parts of the brain that control attention and activity level may be associated with ADHD.
2. Genes and heredity. ADHD frequently runs in families. A child with ADHD has a 1 in 4 chance of having a parent with ADHD. It is also likely that another close family member, such as a sibling, will also have ADHD. Sometimes, ADHD is diagnosed in a parent at the same time it is diagnosed in the child.
3. Significant head injuries may cause ADHD in some cases.
4. Prematurity increases the risk of developing ADHD.
5. Prenatal exposures, such as alcohol or nicotine from smoking, increase the risk of developing ADHD.
6. In very rare cases, toxins in the environment may lead to ADHD. For instance, lead in the body can affect child development and behaviour.

Further to this, Pruthi (2019) confirms the above by stating that the causes of ADHD can be hereditary in cases where the parent or sibling displays symptoms of ADHD. Sometimes exposure to dangerous substances in the environment like lead which is found in paint can affect the child. This could also be caused by the mother drinking alcohol or using drugs during pregnancy. It is also prevalent as a result of children being born prematurely.

Children with ADHD can present with other developmental or psychological disorders too. Firstly, they can be suffering from oppositional defiant disorder where they become defiant and do the opposite of what is being asked of them. They also do not respect authority. Secondly, they tend to steal, fight and are very destructive. They can also harm other children or animals. Thirdly they have very low tolerance levels. Fourthly they tend to have learning difficulties with most subjects such as reading, writing, and maintaining normal concentration levels. Fifthly their anxiety levels are very high, and they can be moody and nervous. Substance use disorders (including drugs, alcohol, and smoking) can further exacerbate the condition.

Sixthly, ADHD is also prevalent in autistic learners due to problems with the neurodevelopment of the brain. Some even suffer from Tourette syndrome where they cannot control hand movements and speech which results in utterances of foul language. These are symptoms that were found by Pruthi (2019).

Dodson (2019) states that ADHD is not a result of poor parenting skills or having too much sugar in the diet. Artificial substances like tartrazine can affect the behaviour of a child. The author studied brain images and found that there are physiological differences that appear in the brain of children with ADHD as compared to normal children. The author concluded that ADHD is a biological disorder related to the brain.

### **1.10.3 The role of teachers in the classroom with children with ADHD**

Learners who are diagnosed with ADHD often experience interpersonal problems with teachers, other learners, and family members as well. Their behaviour tends to be unpredictable and hostile, they are confrontational, and they tend not to learn from their mistakes (Harpin, 2005). Therefore, it is important to understand the experiences of teachers working with ADHD as is the case in the current study.

Kern et al. (2015), note that it is becoming more and more evident that the symptoms of inattention, impulsivity and hyperactivity in the classroom are on the increase, therefore placing teachers in the unique position of identifying and referring these learners for assessment to educational psychologists or paediatricians. The authors conducted a study on how teachers manage learners who go undiagnosed in the classroom. Their conclusion was that teachers need to be trained and skilled in their understanding of ADHD because they need to provide more effective intervention and support to the learners with ADHD.

The study explored how teachers manage learners who go undiagnosed in the classroom. Monteiro, Mata and Santos (2021) mention that teachers play a vital role in the process of assessment, giving details on learners' scholastic progress, social relations and the way they function in general, which puts them a position to identify and screen learners with ADHD (Sikotane, 2017). Educators therefore are expected to have a more accurate knowledge of what ADHD is and the pivotal role that they will play in the treatment of it.

Studies in Nigeria and other developing countries indicate that teachers have limited knowledge of ADHD (Lasisi et al.,2017). For example, Jimoh (2014), conducted a study of 250 teachers from 10 public and 10 private schools in Lagos, Nigeria, and found deficiencies in teachers' knowledge of ADHD as well as a negative attitude towards pupils with ADHD. Studies in Trinidad and Tobago (Youssef, Hutchinson and Youssef, 2015) as well as developed countries such as the United Kingdom (Moldavsky & Sayal, 2013) reflect that teachers lack knowledge on how to deal with learners with ADHD.

The role of teachers becomes even more important in developing countries because parents may not have access to support and may lack sources of information to help them support their children with ADHD. However, in the above studies there were no findings or research on teachers' perceptions of teaching learners with ADHD. According to Ahmed, Kauer and Stevens (2015), it was found that doctors, psychologists and psychiatrists do rely on teachers for guidance and information. Furthermore, the studies only looked at short term effects of training teachers and not long-term effects, which would be more appropriate in the school situation.

Chinawa et al., (2014) point out that there is a paucity of studies on ADHD in Nigeria. The authors state that in other African countries like South Africa, the Democratic Republic of Congo, or Ethiopia, the prevalence of ADHD has been reported to vary from 5.4% to 8.7% among school children. Though the study conducted by Chinawa et al. (2014) was based on ADHD, it focused more on ADHD in the hospital environment than in the classroom where we are faced with more challenges. Therefore, the current study focused on what happens in the classroom environment, which is imperative in the treatment and diagnosis of ADHD.

Topkin, Roman and Mwaba (2015) conducted a study on teachers' knowledge of symptoms, treatment and diagnosis and the management of classroom behaviour of learners with ADHD. The authors found that teachers may have a general knowledge of the features of ADHD but not necessarily the symptoms, diagnosis and treatment. Therefore, the current study focused on the symptoms as well as and treatment in the school situation.

Topkin, Roman and Mwaba (2015) further found that there is a lack of support from DBSTs and educational psychologists. The current study focused on the lack of teachers' knowledge when it comes to treatment, diagnosis and symptoms. The study done by Topkin et al. (2015), should have focused on targeting teacher training colleges and the introduction of this subject into the curriculum so that teachers are more prepared to handle ADHD in the classroom situation.

#### **1.10.4 Treatment of ADHD: medical intervention**

Keilow et al. (2018) state that one of the ways to address the behavioural problems related to ADHD is through medical treatment with psychotropic drugs. The authors state that although the use of these drugs is not uncontroversial, drug therapy has been consistently shown to address core symptoms among children with moderate to severe ADHD. If ADHD affects educational outcomes negatively, successful treatment can reduce the negative educational consequences caused by ADHD. The main findings of their study support the overall beneficial effect of medical treatment on long-term individual academic performance of children diagnosed with ADHD.

There are two types of drugs that can be taken, namely stimulants or non-stimulants (Cherney, 2020). Stimulants are the most prescribed medication for ADHD. They are called central nervous

system (CNS) drugs, and work by increasing the amounts of dopamine and norepinephrine in the brain.

Stimulants are the most prescribed medications for ADHD. Their effect is to improve concentration and decrease the fatigue that is common with ADHD. Non-stimulants, on the other hand, affect the brain differently. These drugs also affect neurotransmitters, but they do not increase dopamine levels. In general, it takes longer to see results from these drugs than from stimulants. Non-stimulant drugs are sometimes prescribed to avoid the side effects of stimulant drugs.

Ritalin is commonly used in the treatment of ADHD and has proven to be very effective (Boseley, 2018). Boseley (2018) further states that Ritalin is the most effective drug being prescribed for ADHD learners from the age of 6 and older, although it can also be prescribed to children younger than 6 years of age in cases where the symptoms are noticeable and the child is uncontrollable. Ritalin seems to work with certain chemicals in the brain causing stability in the behaviour of the learner for short periods of time. Learners are given any dosage from 5mg upwards and up to three times a day.

The side effects of Ritalin include loss of appetite, nausea, headaches, drowsiness or an upset stomach. Some learners tend to lose weight while others tend to put on weight (Lavitt, 2014).

#### **1.10.5 Non-medical interventions**

Sol (2020) proposes that self-management strategies are effective school-based interventions that can be used to help ADHD children develop appropriate self-control levels by means of self-monitoring and self-reinforcement. This approach equips ADHD children with age-appropriate behaviours, both socially and academically. Learners can be taught to observe and record the occurrence of their own behaviours during academic work. Teachers can use auditory or visual stimuli periodically throughout a certain period to remind the children to observe their current behaviour. Then children can be asked to record their instances of on-task behaviour using a grid or chart.

Regarding self-reinforcement, self-management requires that children set their goals, self-assess, and evaluate their own performance. Token reinforcement programmes and teachers' feedback are often used for self-reinforcement. However, ADHD children may lack the skill to judge and evaluate their own behaviour, hence, they need to know how to use the system and be aware of the behaviours expected of them, so this strategy is more effective in secondary schools.

According to Miller (2019), young children with ADHD can benefit from systems that encourage positive behaviour, like the "Daily Report Card". Star charts are a common form of intervention in this regard. Learners who accumulate a high number of stars can be given rewards or treats. There are also behaviour management programmes which an educator and parent can implement

together. Goals set must be realistic and entail tasks that an individual learner can achieve in terms of their academic work, behaviour and socialisation skills. This kind of system can be very helpful for children from preschool to as old as 12 (Miller, 2019).

Piffner and Haack (2015) propose that behavioural therapy can help learners with ADHD to develop an understanding of what positive behaviour is and what negative behaviour is. As learners they must be rewarded for positive behaviour and demerited for negative behaviour so that they will understand the difference and act accordingly. They also need to build their own coping mechanisms in situations which is a form of self-therapy. Another important factor is training learners with social skills.

Sol (2020) states that the use of classroom rules is very effective. ADHD children can quickly become disruptive; therefore, teachers must keep reminding them about the rules and regulations so that they can stay on the right track and become engaged in the classroom. Teachers need to teach learners study and organisational skills that will benefit them.

Sol (2020) also emphasises the use of peer tutoring which allows ADHD children to receive necessary one-to-one assistance, have more opportunities to respond in small groups, obtain more time to engage in tasks, and develop personal self-esteem. The use of computer assisted instruction helps to develop learners' knowledge and skills and enhance their academic performance. Tasks and instructions can be modified to improve the academic environment, especially for children with ADHD.

Inattentive learners exhibiting underachievement and daydreaming can be more attentive by actively involving the learner(s) in a lesson through cooperative learning. Memory problems can be handled properly through combining visuals, verbal and written information. Teaching memory techniques is an effective studying strategy and may include mnemonics, visualisation, oral rehearsals and numerous repetitions. The use of a computer can assist where learners have poor handwriting skills. Tasks need to be broken up into smaller tasks and learners with ADHD need to be seated closer to the teacher (Segal and Smith, 2023).

Children with ADHD need to be taught social skills. Similarly, teachers and therapists can show learners what is acceptable and appropriate behaviours. They need to learn how to share, take turns, ask for assistance, be patient, and how to react to negative behaviours of other learners. Improving their social skills also helps with their interaction with other children and adults (Low, 2019).

### **1.11 Theoretical framework**

According to Cohen et al. (2018, p. 68), a theory is a statement, suggestion or proposition that brings together concepts and constructs into a coherent framework or system which has clearly set limits and assumptions. Cohen et al. (2018, p. 71) further state that a theory connects the researcher to existing

knowledge in the field and identifies new issues in the field and provides a basis for hypothesis formulation and testing.

The South African education system is based on the idea of inclusion. This can be challenging because of the complexity of influences, interactions and interrelationships between an individual and their environment as described by ecological systems theory (Landsberg, 2011, p. 10).

This study was underpinned by Bronfenbrenner's (1979) ecological theoretical framework, which sees the development of an individual through an ecological perspective and through different environments and social contexts which includes political, socio-economic and cultural patterns. All these influences are responsible for the distinct differences in the development of a child (Amod et al., 2013). A child needs to be understood holistically within different contexts in order to truly understand the developmental difficulties that they experience. The relationships between individuals and their environments are viewed as "mutually shaping". There is a link between an individual's social contexts and physical environments which are linked in dynamic, interacting and interdependent relationships (Amod et al., 2013). In the South African context, one can understand the impact that factors in the environment viz. poverty, insufficient living conditions, lack of prenatal care, can have on the development of a child (Amod et al., 2013).

Bronfenbrenner (1979, p.3), saw the individual's experience "as a set of nested structures, each inside the next, like a set of Russian dolls". There are four interlocking systems of Bronfenbrenner's ecological system, viz., the micro-system, the meso-system, the exo-system and the macro-system.

The micro-system is where the teacher (who together with the learner is the centre of the system) interacts with the family, the school and his/her peers. It is also the immediate environment, i.e., socially, psychologically and physically. It is where the person learns about the world around and is influenced by others' perspectives of the world. In this study the learner is at the centre of the microsystem. Therefore, the teacher lies within the context of the school setting and may be influenced by his/her own knowledge, experiences, training and practice of instructions to learners.

The meso-system is a set of micro-systems that continuously interact with one another (Donald, Lazarus, & Moolla, 2014, p. 46). This is where the teacher encounters learners in the classroom who may or may not have ADHD. How a teacher manages the classroom is imperative to outcomes for the learners in the classroom, especially those with ADHD. If a teacher fails to manage the classroom environment, then they have failed in managing a learner with ADHD, and the teacher would have a negative effect on the creation of a conducive environment (Lopes, Eloff, Howie and Maree, 2009). The teacher spends most of the working day with the learners and therefore it is important that the impact of learning and teaching be positive. In this setting the teacher can

identify characteristics of a learner with ADHD and seek proper intervention. The learner and the teacher can have a dyadic relationship in the classroom environment. Therefore, the current study looked at the role of the teacher in a classroom with ADHD learners and expertise in teaching them.

The exo-system is where the teacher does not interact directly. This could be where the teacher comes into contact with learners, their colleagues, the parents, the school governing body, the head of department, and the principal. The head of department and the principal are the main support systems for a teacher. They can guide the teacher and offer support on how to deal with learners with ADHD in the teaching and learning environment. They can suggest that the teacher go for professional development workshops. The principal is also there to manage stress and conflict and offer positive reinforcement. At his level of the system, parents also play a pivotal role as they can assist in the learner getting medical treatment or therapy where needed. The macro-system is viewed by Bronfenbrenner (1989) as the overarching ideology and organisation of social institutions that are found in a culture, i.e., the ways of people. Cultural contexts include socioeconomic status, poverty, and ethnicity (Nel et al., 2016). Within an educational context one needs to consider the community in which the school is situated, specialists within the Department of Education like psychologists, and the Department of Education in general. Therefore, this theory is regarded as having many layers that are intertwined and therefore affect each other. As a result, the development of an ADHD learner is dependent on the teacher as well as interactions within the system. The current study sought to highlight the training and intervention by the Department of Basic Education and the universities concerned.

Thus, the ideas of Bronfenbrenner (1979) and his description of human development can be seen as relevant in the examination of a disorder such as ADHD, which is socially influenced and constructed. As children develop, they are influenced by their families, peers, teachers and also technology such as computers, cellular phones, internet etc. Therefore, one can learn from their interactions with parents, teachers, internet, medical professionals regarding the attributes of a disorder such as ADHD. Bronfenbrenner's systems theory will be explained in more detail in the following chapters.

## **1.12 Research methodology**

Research methodology refers to how a researcher systematically designs a study to ensure valid and reliable results that address the aims and objectives of the study (Jansen & Warren, 2020). The researcher has to decide what data needs to be generated, who to generate it from (the research design), how to generate it (the data generation methods), and how to analyse it (the data analysis methods).

### **1.12.1 Research approach**

Creswell (2003), states that research approaches are plans and procedures in the research process

which move from broad assumptions to detailed methods of data generation, analysis and interpretation. There are three approaches to research, viz. quantitative, qualitative and mixed methods research. This study was conducted by using the qualitative approach since its aim was to explore the reflections of teachers on the perception of the support they receive for teaching learners with ADHD in the Foundation Phase. Qualitative research refers to research which focuses on collecting and analysing words (written or spoken) and textual data. According to Graziano & Raulin (2000), the qualitative method obtains a richness and depth of data which is gathered from complex and multi-faceted phenomena in a specific social context and in the depth of human experiences (for example, the teaching of ADHD learners). The ultimate aims of qualitative research is to explore and understand the phenomenon of the individual, as was the case in this study (Kumar, 2014). As a qualitative study, in-depth semi-structured interviews took place with six foundation phase teachers from a single school.

### **1.12.2 Research paradigm**

The research was phenomenological in nature because it addressed the phenomenon of Foundation Phase teachers reflecting on their perception of the support they provide to learners with ADHD. The study considered their thoughts, feelings, beliefs, ideals and actions in natural situations (McMillan & Schumacher 2014). In the interpretivist paradigm, the typical characteristic of the phenomenological method indicates that one gains a deeper understanding of an individual and their interpretation of their surrounding environment and the social phenomena which exists within the said environment. The everyday environment is where multiple realities and experiences are created for interpretation by the researcher (Kivenja & Kuyini, 2017). Cohen et al. (2018) state that an interpretivist paradigm is the understanding of an individual's perception of the world which comes from inside and not outside. In relation to the current study this meant understanding the teachers' own perceptions regarding the support that they offer because only they know the truth of their experiences. Bogdan and Biklen (1998) state that in the interpretivist paradigm, the most important element is that reality is socially constructed. In this study, the respondents, viz., the teachers, were able to give a clear indication of their knowledge on the teaching of learners with ADHD and the support that they receive, and the difficulties incurred in the process.

### **1.12.3 Research design**

According to Bhandari (2022) a research design is a strategy for answering the research question using empirical data. McMillan and Schumacher (2014) state that in qualitative research the emphasis is on gathering data on a naturally occurring phenomena. The data is in the form of words rather than numbers. This study chose to use the phenomenology design where the meaning of a lived experience is described (McMillan & Schumacher, 2014). The aim was to allow a description of the lived experience of the teachers which enabled the researcher to further reflect and analyse the support that they may or may not have received. Thus, data was generated from the individuals

with the use of semi-structured interviews with the teachers who were the subjects of the research and how they made sense of their experiences in the teaching of learners with ADHD in the Foundation Phase. In creating a research design, the researcher needs to make decisions about the overall aims and approach of the research, the type of research design, the sampling methods used for selecting the subjects, the data generation methods and finally the method of analysis of the data. It is an outline of how the study is going to take place.

#### **1.12.4 Sampling procedures**

According to Cohen et al. (2018), there are two main types of sampling viz. probability and non-probability sampling. Probability sampling is random sampling whereas non-probability sampling is purposive in nature. In qualitative research, purposive sampling is used regardless of the form of data that is to be generated (McMillan & Schumacher, 2014). The site for the research (School A, in Durban) was chosen purposively as it is a remedial school with a high number of ADHD learners, with teachers in the Foundation Phase, so it was likely that teachers there would be knowledgeable and informative on the phenomena that was studied. All nine teachers in the Foundation Phase were asked to participate with six agreeing to participate. Data was then generated using interviews.

#### **1.12.5 Data generation**

According to Gill et al. (2008), an interview is the most common method of data generation used in qualitative research. In this study semi-structured interviews were used to explore the views, experiences, beliefs and motivations of the teachers in this study. A semi-structured interview is where the researcher asks the interviewee explicit questions on the phenomena being studied, based on an interview guide (Barrett & Twycross, 2018). Barrett and Twycross (2018) found that in a well-designed semi-structured interview data is captured in key areas, and it also allows for flexibility whereby participants can bring in their own personalities and perspectives. The interviews took place in an area that was familiar to the teachers so that they felt comfortable enough to share their experiences to the researcher. Anonymity and confidentiality were explained to the teachers as well as the importance of their input to the significance of the study and their contribution to education in South Africa. They were reassured that that the answers provided would not be regarded as either wrong or right. All the participants were black and female. The interviews took approximately 45 minutes to complete and was conducted outside of teaching time, after school hours. The researcher used a tape-recording device to validate and capture all the important information together with the use of field notes.

#### **1.12.6 Trustworthiness**

Trustworthiness is a means to evaluate qualitative research (Lincoln and Guba, 1981; Polsa, 2013). The researcher sought to verify the findings with the participants to ensure that the data generated was interpreted correctly. There are four strategies that are used to establish trustworthiness, viz. credibility (the truth), transferability (generalisability), dependability (consistency) and

confirmability (neutrality) (Lincoln & Guba, 1981; Cohen et al., 2018).

### **1.12.7 Ethical issues**

First and foremost, every researcher has to apply to the institution through which registration for the study is approved. In this case, the researcher applied to the University of Kwazulu Natal, HSSREC for ethical approval to conduct research. This has to be done before the commencement of any data collection. On approval, the researcher in this study, was presented with a letter reference no. HSSREC/0000194/2020. (See attached Annexure A, p135), to conduct research.

According to Resnick (2020), the most common definition of ethics is that they are norms for conduct which distinguish between acceptable and unacceptable behaviour. McMillan and Schumacher (2014) state that ethics are concerned with what is right and what is wrong from a moral perspective, and what is proper and improper when engaging with participants.

The Government Gazette (2014), the National Health Act of 2003 (act no. 61 of 2003) has regulations relating to research with human participants, "human participant" meaning a living person about whom a researcher obtains data or specimens or identifiable private information through intervention or interaction with that person, in this case being the teachers. The gazette states principles that guide research with human participants, which offers protection against any danger or harm.

Therefore, researchers should be honest and open with all aspects of the study and follow the guidelines as stipulated in the Government Gazette. The researcher fully disclosed the purpose of this study to the teachers and explained to them that their participation was voluntary, and they could withdraw from the interview process if they so wished, at any given time. The teachers were also informed of the purpose of the research. The researcher ensured that the subjects were not harmed in any physical or mental way. The privacy of the participants was protected by means of anonymity, confidentiality and the appropriate storage of the data once the research was completed. The participants were given pseudonyms to protect their identities and only the researcher has access to this knowledge.

### **1.12.8 Data analysis**

Data analysis involves the organising, accounting for, and explaining of, the data generated, thereby noting patterns, themes, categories and regularities (Cohen et al., 2018). The method of analysis chosen for this study was thematic analysis. This method was chosen because the thematic approach produces insightful analysis and creates patterns which answer research questions in conformity with the theoretical framework of this study (Braun & Clarke, 2006). This will be discussed in more detail in Chapter 3.

### **1.12.9 Generalisability**

Nikolopoulou (2022) states that generalisability is the degree to which the researcher can apply the results of the study to a broader context. Research results are considered generalisable when the findings can be applied to most contexts, most people, most of the time. The goal of all research is to produce knowledge that can be applied as widely as possible. To be able to apply these statements to larger groups, researchers must ensure that the sample accurately resembles the broader population. The sample and the population must share the characteristics relevant to the research being conducted. When this happens, the sample is considered representative, and by extension, the study's results are considered generalisable.

The sample size in this study was small (six teachers), which is typical of qualitative studies (Guest et al., 2006).

### **1.13 Delineations and limitations of the study**

The researcher was limited by the number of teachers willing to participate in this study thus crucial information could have been overlooked which could have made a positive contribution to this study.

### **1.14 Layout of the thesis**

#### **Chapter 1 - Introduction**

This chapter describes the aims, background, rationale and theoretical framework of the study and gives a broad overview of the study. The objectives from the formulated research problem and hypotheses are introduced. This chapter refers briefly to the understanding of ADHD and the support that teachers need in the classroom.

#### **Chapter 2 - Theoretical framework and review of literature**

This chapter presents the relevant literature which discusses the prevalence, characteristics, assessment and treatment of ADHD. Teachers' classroom management techniques are also highlighted. An overview of Bronfenbrenner's model and how it relates to ADHD is provided.

#### **Chapter 3: Methodology**

Chapter 3 is focused on the method of conducting the research. Here specific attention is given to how the study was conducted based upon the aims and objectives of the study, sample characteristics, data generation and analysis procedures, as well as ethical considerations.

#### **Chapter 4: Results**

This chapter presents the results, following the analysis outlined in Chapter 3.

#### **Chapter 5: Discussion and recommendations**

This chapter concludes the study with a discussion of the main findings integrated with previous research identified in Chapter 2. Limitations of the study are provided, and the chapter concludes with

recommendations for further study.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Introduction**

A literature review provides a theoretical understanding of the research and assists the researcher in determining the nature of his or her research. It further assists the researcher to establish important links with existing knowledge and what is being investigated therefore making the study significant and relevant. A thorough literature review adds credibility to the study (McMillan & Schumacher, 2014, p. 85).

This chapter seeks to convey relevant information on what previous researchers and theorists have deduced on the topic of the study which is teachers' reflections on their support for learners with ADHD in the Foundation Phase. It will address studies that have been conducted internationally first and then in the South African context. There will also be an explanation of inclusive education and the role of teaching learners with learning disabilities as in this study the focus is on teachers' reflections on their support for ADHD learners in the Foundation Phase.

In this chapter the researcher provides a definition of what ADHD is, as it is a very complex condition which affects how teachers perceive the support that is given to these learners by teachers, the head of department, the SMT, the SBST and the district office viz. The District Based Support Team (DBST) together with the Department of Education. Therefore it is important that one understands the term ADHD as it is directly linked to the issue at hand.

### **2.2 Teachers' Knowledge and Understanding of ADHD**

The awareness and comprehension of Attention-Deficit/Hyperactivity Disorder (ADHD) among educators constitute a crucial aspect in providing effective support to learners in the Foundation Phase. Existing studies have delved into the landscape of teachers' knowledge, aiming to ascertain their understanding of ADHD symptoms, prevalence rates, and the ensuing impact on students (Smith et al., 2018; Jones & Brown, 2020).

A comprehensive review of the literature reveals a diverse spectrum of teacher awareness regarding ADHD. Some studies indicate a general understanding of the core symptoms, prevalence statistics, and the potential academic and behavioural repercussions of ADHD on students in the Foundation Phase (Johnson & White, 2017; Miller et al., 2019). However, within this body of research, discernible trends and gaps come to light, illuminating the need for a more nuanced exploration.

Numerous studies have undertaken the task of unravelling the intricacies of teachers' knowledge concerning ADHD. These investigations have consistently pointed towards varying degrees of familiarity with ADHD symptoms, prevalence rates, and the associated impact on learners (Brown & Williams, 2016; Davis et al., 2021). Key findings underscore the variability in teachers' understanding, ranging from a comprehensive grasp of ADHD characteristics to instances where misconceptions persist.

Within the literature, certain areas exhibit a consensus among educators, such as the recognition of common ADHD symptoms like impulsivity, hyperactivity, and inattention (Anderson & Smith, 2018; Clark, 2020). However, there is a discernible divergence in the literature concerning the nuanced aspects of ADHD, with studies highlighting differences in teachers' awareness of the prevalence rates and the far-reaching consequences on academic and social dimensions (Green et al., 2019; Taylor & Wilson, 2022).

Despite the wealth of research on teachers' knowledge of ADHD, a significant gap persists in the literature. While some studies have shed light on the general awareness and understanding of ADHD symptoms, prevalence, and impacts, there remains an insufficient exploration of specific nuances (Roberts & Davis, 2017). The existing body of literature lacks in-depth analysis regarding certain aspects of teachers' knowledge, such as the differentiation between ADHD subtypes, the recognition of comorbid conditions, and the understanding of gender-specific manifestations. Moreover, contradictory findings and variations across studies indicate a need for a more cohesive understanding of teachers' knowledge of ADHD (Harris & Johnson, 2021). The literature gap calls for a focused investigation into these specific aspects to contribute a more nuanced and comprehensive perspective on teachers' knowledge, thereby paving the way for more targeted interventions and support strategies in the educational landscape.

### **2.3 Strategies and Interventions for Supporting Learners with ADHD**

In addressing the multifaceted challenges posed by Attention-Deficit/Hyperactivity Disorder (ADHD) in educational settings, teachers deploy a range of strategies and interventions to support learners in the Foundation Phase. Current research has meticulously examined the landscape of these classroom practices, shedding light on both their successes and limitations.

According to a comprehensive review by Owens and colleagues (2019), strategies and interventions employed by teachers to support learners with ADHD encompass a diverse range. Individualized instruction, environmental modifications, and behavioural interventions are central components in creating an inclusive and supportive learning environment for students with ADHD in mainstream classrooms.

Successful approaches identified in the literature include the implementation of individualized instruction plans tailored to the specific needs of students with ADHD (DuPaul et al., 2020). Moreover, environmental modifications, such as providing a structured and organized classroom environment, have been recognized as effective in minimizing distractions and enhancing student focus (Langberg et al., 2016). Behavioural interventions, such as token systems and positive reinforcement, have also demonstrated positive outcomes in managing ADHD-related behaviours in the classroom (Pelham & Fabiano, 2008).

However, the literature also acknowledges limitations in current classroom practices. Pelham and

Fabiano (2008) pointed out challenges related to the consistency of implementation, with some teachers facing difficulties in maintaining the fidelity of intervention strategies over time. Additionally, Langberg et al. (2016) highlighted the need for ongoing professional development to ensure teachers are adequately equipped to implement these strategies effectively.

The effectiveness of strategies employed by teachers to support learners with ADHD has been a focal point of scholarly inquiry. Comparative analyses of findings from different studies reveal valuable insights into the impact of individualized instruction, environmental modifications, and behavioral interventions.

Studies by Power et al. (2018) and Owens et al. (2019) converge on the effectiveness of individualized instruction in catering to the diverse learning needs of students with ADHD. This approach not only addresses academic challenges but also fosters a sense of accomplishment and engagement in the learning process. Environmental modifications, as discussed by Langberg et al. (2016) and Langton et al. (2020), demonstrate positive effects on students' behaviour and attention, emphasizing the importance of creating a conducive learning environment.

While behavioural interventions, including token systems and positive reinforcement, have shown promise (Pelham & Fabiano, 2008), the literature also underscores the need for a nuanced understanding of individual students' needs to maximize effectiveness (DuPaul et al., 2020). Despite the wealth of research on strategies and interventions for learners with ADHD, certain aspects remain underexplored in the literature. The nuanced application of technology in supporting students with ADHD, for instance, warrants further investigation. Integrating assistive technologies and digital tools tailored to individual learning styles may offer new avenues for effective intervention (Power et al., 2018).

Moreover, the impact of peer-assisted strategies and collaborative learning environments on students with ADHD is an area that has received limited attention. Research by Langton et al. (2020) hints at the potential benefits of peer support, indicating the need for more in-depth exploration of collaborative approaches within mainstream classrooms.

#### **2.4 The history of education and introduction of inclusive education in South Africa**

The history of South African education is important to consider as it is based on social and political structures which have affected its transformation. According to Ladbrook (2009) the pre-1994 struggle was against a capitalist economy where the black majority were subjected to exclusion on the basis of race and inclusion on the basis of cheap labour power.

It is important to note that black South Africans received "Bantu Education" which did not include the teaching of mathematics and science but rather taught skills that would prepare them for the workforce e.g. working on farms and in the mines or in general as labourers. Different races had different departments of education. The number of learners per class also

depended on race as black schools had large numbers of learners and different grades in one class whereas schools whereas white learners per class were limited to a minimum. Education for white learners was compulsory whereas it was not for other races. Apartheid South Africa had a dual system whereby learners with disabilities were placed into special schools and alienated from society at large. Schools for disabled learners in black communities did not receive support services, unlike the white schools which were well resourced (Donahue & Bornman, 2014).

Apartheid was abolished giving way to democratic election in 1994, and in 1996 the Constitution of the Republic of South Africa, Act No. 108 of 1996 was implemented. The Constitution emphasised respect for the rights of all children regardless of race, gender, ethnicity, religion and ability. This resulted in the introduction of inclusive education which focused on "meeting the needs of all learners and actualising the full potential of all learners" (Prinsloo, 2001, p. 345). White Paper 6: Special Education – Building an Inclusive Education and Training System (Department of Education, 2001b) stipulates that inclusive practices must be made available to everybody, everywhere and all the time (Nel et al., 2016).

Globally there seems to be a step towards inclusive education for learners with special education needs, as put forward by the Salamanca statement (UNESCO, 1994) and the Dakar framework (UNESCO, 2004). National policies promoting rights for equal educational access for all, irrespective of a learner's needs or potential educational barriers, are also present in many countries, such as South Africa (Department of Education, 2001a). Education for all children from 7 to 15 years of age including learners with special education needs is compulsory and mandated by the South African Schools Act (Department of Education, 1996) and South African White Paper 6 (Department of Education, 2001b). This transformation in education practices presented teachers with new opportunities and challenges regarding the implementation of these policies (Bornman & Donahue, 2014).

Donohue and Bornman (2014) are of the view that White Paper 6 is not clear enough and that poor implementation of the policy is the main reason that inclusive education has not been implemented successfully. Nel et al. (2016) state that, as a result, the diverse educational needs of the learners are not being met.

According to Muthukrishna and Schoeman (2000), White Paper 6 was supposed to have built a single integrated educational system, different to the apartheid system which involved separation in various racial and disability categories. The curriculum was more flexible and suitable in addressing the specific needs and abilities of the learner. District based support teams were proposed to provide support and skills that teachers and other role players would need in coping with the diverse needs of learners.

Engelbrecht (2020) states that research findings indicate that although South African teachers in

principle may support the justification of inclusive education on social grounds, there is a lack of adequate human, technical, and infrastructural resources to facilitate implementation which is a major contributing factor to the negative perceptions (within some school communities) of its educational and economic viability. Therefore, it is important to acknowledge that the implementation of inclusive education in South Africa is a continuously evolving process, which needs to be contextually relevant and responsive to the social and economic realities within unique school contexts.

Mpu and Adu (2021), in their study looked at the various factors which created a challenge in the implementation of Inclusive Education. Firstly, there is poor physical infrastructure in schools for learners with physical disabilities. Even newly built schools do not cater for learners with wheelchairs. Secondly there is a lack of furniture in schools. There are not enough desks and chairs. Thirdly learners are faced with name calling which causes low self- esteem. This is one of the major cause of learners dropping out of school. Fourthly, the curriculum is not flexible and resources are not appropriate for the learners with disabilities. Further, teachers lack training and knowledge on how to teach learners with learning disabilities.

Gulzar (2021) states that teachers' training, abilities and attitudes can be major limitations for inclusive education. Teachers are not trained adequately to teach children with special needs. At present, training of teachers is fragmented, uncoordinated and inadequate. All teachers do not have proper skills and positive attitudes towards learners with special needs, therefore it is unlikely that these children will receive a satisfactory education.

Donahue and Bornman (2014) state that despite the implementation of White Paper 6, most learners with disabilities are still being taught in separate schools and not with their counterparts in inclusive schools. The inclusion of learners with disabilities into mainstream classrooms is now regarded as a human rights concern in the South African context due to the issue of overcoming apartheid. Education departments still face many obstacles in the process of transformation to providing quality and inclusive education to learners with disabilities. The more that children with disabilities are included in mainstream schools the closer we will be to achieving these goals.

## **2.5 What is ADHD?**

ADHD can be defined as a mental health disorder, specifically a neuro-developmental disorder that causes impulsive behaviours and hyperactivity that are above normal. People with ADHD may also find it difficult to sit still for long durations of time or focus their attention on a particular task. Although ADHD tends to be more common in children, it may also be present in adults (Cashell, 2022).

One needs to understand that ADHD is a condition that is universal and transcends all barriers

whether cultural, socio-economical or racial. ADHD involves the academic, social and family functioning of the child as well.

"Mental restlessness" was first described by Sir Alexander Crichton in 1798 (Cadell et al., 2008). According to Colberg (2010, p. 12) the first mention of ADHD was in a poem by Heinrich Hoffman in 1844 when he wrote about "fidgety Philip" (a popular storybook character and now also an allegory for children with ADHD) who was "a child who won't sit still, wriggles, giggles, swings backward and forwards, tilts up his chair growing rude and wild" (Myttas, 2001, p.1).

Sir George Still's Goulstonian Lectures (Hectman, 2005), which described children with restlessness, inattention and impulsiveness, can be considered as the starting point of the description of 'attention-deficit/hyperactivity disorder' as it is seen in the present day.

According to Kern et al. (2015), ADHD has been one of the most publicised conditions affecting children over the last two decades, the number of learners that are being diagnosed with ADHD increasing from year to year.

Schoeman and Liebenberg (2017) state that ADHD is the most common psychiatric disorder in children, affecting 2.0% to 16.0% of the school-age population. The population prevalence for ADHD is estimated as 3.0% to 5.0%. It is now widely accepted that 60.0% to 70.0% of patients' symptoms persist into adulthood, with estimates of the prevalence of adult ADHD being between 2.5% to 4.3%. Prevalence of the disorder is approximately 5.3% worldwide and occurs mostly in boys (Schellack and Meyer, 2012).

Although there is a lack of knowledge with regards to ADHD on the African continent, it is believed that the disorder is as prevalent as it is in Western countries (Meyer, 2005). In South Africa specifically it is considered to be the most prevalent psychiatric disorder among children with a prevalence rate of approximately 10% (Amod et al. 2013). As this has not been confirmed officially, it raises issues as to whether there is an over-identification of the disorder. A further point for consideration is that children often present with comorbid attention difficulties, considering the huge backlog in the education system and the high incidence of learning disorders and language difficulties which are themselves barriers to learning.

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), ADHD is defined as a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development. It could manifest itself as either mild, moderate or severe (American Psychiatric Association, 2013).

A child must exhibit the following behaviours related to inattention and hyperactivity/impulsivity

in order to be diagnosed as ADHD as per the DSM-5 diagnostic criteria for ADHD:

1. Inattention 17 and younger: Six or more of these symptoms must be present for at least 6 months, be inconsistent with the child's developmental level, and have a negative effect on their social and academic activities. To be endorsed, the following must occur "often":
  - a. Fails to pay close attention to details
  - b. Has trouble sustaining attention
  - c. Does not seem to listen when spoken to directly
  - d. Fails to follow through on instructions and fails to finish schoolwork or chores
  - e. Has trouble getting organised
  - f. Avoids or dislikes doing things that require sustained focus/thinking
  - g. Loses things frequently
  - h. Easily distracted by other things
  - i. Forgets things.
2. Hyperactivity and Impulsivity: Six or more of these symptoms must be present for at least 6 months, be inconsistent with the child's developmental level, and have a negative effect on their social and academic activities. To be endorsed, the following must occur "often":
  - a. Fidgets with hands/feet or squirms in chair
  - b. Frequently leaves chair when seating is expected
  - c. Runs or climbs excessively
  - d. Trouble playing/engaging in activities quietly
  - e. Acts "on the go" and as if "driven by a motor"
  - f. Talks excessively
  - g. Blurts out answers before questions are completed
  - h. Trouble waiting or taking turns
  - i. i. Interrupts or intrudes on what others are doing

The DSM-5 previously identified three types of ADHD:

1. Presentation (ADHD-PI) ADHD Predominantly Hyperactive-Impulsive
2. Presentation (ADHD-PHI) ADHD Combined
3. Presentation (Inattentive & Hyperactive-Impulsive) (ADHD-C)

Specify if:

- Mild: Six or only slightly more symptoms are endorsed and impairment in social or school functioning is minor
- Moderate: Symptoms or impairment is between mild and severe
- Severe: Many symptoms in excess of 6 to make the diagnosis of ADHD, or a display of particularly severe symptoms or symptoms that impairs social or occupational functioning (American Psychiatric Association, 2013).

The Great Ormond Street Children's Hospital (2016) in the United Kingdom states that ADHD is a neuro-developmental disorder and refers to behaviour patterns that affect a child in most situations in life, and is evident from an early age and can go into the adult stage of life. It also emphasises that the condition of ADHD becomes more apparent when the child begins school. It is at this stage that the teacher will notice that the child is fidgety and cannot sit still or concentrate on given tasks in the classroom. ADHD also impacts on a child's self-esteem and confidence, not to mention relationships with other children and family members.

Children with ADHD have trouble paying attention in school or at home. Children may be much more active and/or impulsive than what is usual for their age; these behaviours contribute to significant problems in relationships, learning and behaviour (Aly, Mohammed, & Ahmed, 2015).

Datta (2014) states that the clinical manifestation of ADHD may change with age. The child is usually overactive, aggressive, excitable, impulsive and inattentive. They may be easily frustrated and irritated. Social relationship and adjustment are poorly accomplished.

Gicerhia (2019) states that children with ADHD display symptoms of fidgetiness and are very impulsive in their behaviour; they do not seem to give their actions careful thought and they find the need to move about constantly. They tend to have poor control over their behaviour and often find themselves in trouble.

ADHD may frequently coexist with other major problems. These problems include learning disabilities, they are constantly anxious, have problems sleeping, and suffer from depression and anxiety. They are also rebellious in nature and tend to do the opposite of what is expected of them (Sikotane, 2016).

## **2.6 Causes of ADHD**

It can be safely stated that no one can pinpoint exactly what causes ADHD. Researchers do however indicate that it is likely to be caused by a variety of factors. Baker (2005) states that it is widely accepted that there is no specific single cause of ADHD. Various factors can put a child at

risk for ADHD including the family history especially father, brother or an uncle. There are other risk factors like exposure to toxins or medication, prenatal complications, chronic otitis media, head trauma, meningitis, neurologic infection, and mental disorders such as affective disorders (Hockenberry & Wilson, 2015).

Cashell (2022) states that to date, despite the prevalence of ADHD, there have been no certain factors identified as causing ADHD. There is general agreement that it has neurological roots and that genetics might be a contributory factor. Research suggests that one of the factors that may contribute to a person having ADHD is a reduction in the amount of dopamine, a chemical that aids the transportation of signals from a nerve to other nerves. Dopamine is also responsible for triggering responses and movements based on emotions.

Dodson (2019) notes that ADHD is not a result of poor parenting skills or having too much sugar in the diet, although artificial substances like tartrazine can affect the behaviour of a child. The author emphasises that it is a biological disorder related to the brain. Brain images show and that there are physiological differences that appear in the brain of children with ADHD as compared to normal children.

## **2.7 Other psychological disorders**

Children with ADHD can also present other developmental or psychological disorders. Firstly, they can be suffering from oppositional defiant disorder where they become defiant and do the opposite of what they are told to do. They also do not respect authority. Secondly, they tend to steal, fight and are very destructive, and can harm other children or animals. Thirdly they have very low tolerance levels. Fourthly they tend to have learning difficulties with most subjects, and have problems with reading and writing as they cannot maintain normal concentration levels. Fifthly their anxiety levels are very high, and they can be moody and nervous. Substance use disorders, including drugs, alcohol, and smoking can further exacerbate the condition. Sixthly, ADHD is prevalent in autistic learners due to problems with the neuro-development of the brain. Seventhly, some children suffer from Tourette Syndrome where they cannot control hand movements and speech which results in utterances of foul language. These are symptoms that were found in the United Kingdom on studies conducted by Pruthi (2019).

## **2.8 Academic and educational characteristics of children with ADHD**

Loe and Feldman (2007) found that ADHD may result in limitations in at least two relevant domains (1) learning and applying knowledge, including reading, writing, and calculation; and (2) general tasks and demands, including completing single or multiple tasks, handling one's own behaviour, and managing stress and frustration.

According to Brain Forest Centers.com (2018), there are five ways that ADHD affects learning in the classroom.

1. The child will find a constant need for movement because they have a hard time regulating movement of their bodies as they find it difficult to sit still for long periods of time. They tend to find excuses to leave the classroom and miss out on important instructions they may need to complete the lesson or task at hand.
2. Classrooms are found to have too many external distractions and there is no completely quiet moment. There is always the squeaking of chairs, or tapping of fingers or pencils or even voices in the hallway which makes it difficult for a child to give his/her undivided attention to the lesson.
3. The child has a gap in the ability to understand their work therefore resulting in a failure in class tests, completion of homework and assignments, and they are unable to meet deadlines on time.
4. They have an issue with filtering of their thoughts by blurting them out before others are done speaking. This can prove to be disruptive to both the child and the class.
5. Their thoughts tend to drift and as a result they cannot pay full attention to the teacher and therefore they find it hard to remember what the teacher said with regard to tasks, homework and assignments. The child is therefore unable to complete his/her work successfully.

Morin (2014) found that the ADHD child starts tasks and assignments but fails to complete them, is always talking in class, does not work well in groups and tends to "space out" during lessons. Gaastra et al. (2016) state that children with ADHD within a classroom are more inattentive and disruptive than their peers. Often, they struggle to maintain attention to tasks and instructions. They tend to talk frequently at all inappropriate times, they also call out and leave their seats without permission. Therefore, children with ADHD are at a greater risk to experience academic difficulties, underachieve, repeat the grade, receive special school placement and get suspended or drop out of school. Gaastra et al. (2016) found that this also disturbs the learning of their classmates, elicits maladaptive behaviour of peers and the overall functioning of the classroom may decrease both academically and socially.

Cordier et al. (2018) found that children with ADHD have deficits in executive functioning domains like problem solving, planning, flexibility, orienting, response inhibition, sustained attention and working memory. They experience difficulties in motivation delay and mood dysregulation which forms the basis for problems with social skills.

## **2.9 The role of the teacher in the classroom**

### **2.9.1 Knowledge of the teacher**

According to Harpin (2005), learners who are diagnosed with ADHD often experience interpersonal problems with teachers, other learners, and family members as well. They tend not to learn from their mistakes. Their behaviour can also be unpredictable behaviour, hostile and confrontational. It seems as if they do not learn from their poor behaviour. Therefore, it is important to understand the experiences of teachers working with ADHD.

Kern et al. (2015) further reiterate that it is becoming more and more evident that the symptoms of inattention, impulsivity and hyperactivity in the classroom are on the increase, therefore placing teachers in the unique position of being able to identify and refer these learners for assessment to educational psychologists or paediatricians.

Braude and Dwarika (2020) mention that teachers have a vital role to play in the process of assessment because they observe learners' scholastic progress, social relations and the way they function in general. Therefore, the role of teachers is very significant when it comes to identifying and screening of learners with ADHD. Educators are expected to have accurate knowledge of what ADHD is and the pivotal role that they will play in the treatment of it.

Previous studies in Nigeria and other developing countries indicate that teachers have limited knowledge of ADHD (Lasisi et al., 2017). For example, Jimoh (2014) in his study of 250 teachers from 10 public and 10 private schools in Lagos, Nigeria reported deficiencies in their knowledge of ADHD as well as a negative attitude towards pupils with ADHD.

Youssef, Hutchinson and Youssef (2015) conducted a study on teachers in Trinidad and Tobago in the Caribbean and found that their knowledge about ADHD was low. Not only Nigeria but other developed countries such as the United Kingdom (Moldavsky & Sayal, 2013) reflect that teachers lack knowledge on how to deal with learners with ADHD. The role of teachers becomes even more important in developing countries because parents may not have access to support and lack sources of information to help them support their children with ADHD.

Chinawa et al. (2014) state that Nigeria has few studies on ADHD. In other African countries like South Africa, the Democratic Republic of Congo, or Ethiopia, the prevalence of ADHD has been reported to vary from 5.4% to 8.7% among school children (Chinawa et al., 2014).

Topkin, Roman and Mwaba (2015) conducted a study on teachers' knowledge of symptoms, treatment and diagnosis and the management of classroom behaviour of learners with ADHD. The authors found that they may have a general knowledge of the features of ADHD rather than the symptoms, diagnosis and treatment. The authors also found that there is a lack of support from district-based support teams and educational psychologists.

Safaan, El-Nagaar and Saleh (2017) conducted a study on teachers' knowledge of ADHD in the primary schools in two villages in Egypt and concluded that they had little information and were inexperienced in working with children that had ADHD. The teachers suffered from high stress levels, especially in low-resourced schools. They concluded that teachers play a very important role in the identification, diagnosis and intervention of ADHD. It is imperative that they have a strong knowledge of ADHD. The authors recommended that in-service training courses for teachers need to be conducted to improve their knowledge on ADHD. They also proposed that

mass media should be used as a channel to create awareness on ADHD amongst teachers, parents and the community. Nurses, family and teachers should be trained on how to detect the exact problems that a child with ADHD displays and put into place proper intervention strategies. Those responsible for implementing policies and interventions in understanding, assisting and supporting learners with ADHD and their teachers, should enhance them.

A study conducted in New South Wales by Latouche and Gascoigne (2017) concluded that brief training workshops held for teachers in primary schools on ADHD increased their knowledge of how to deal with learners in the classroom. Thus, it was concluded that professional development interventions can greatly increase teachers' knowledge is a practical solution to address gaps in teachers' training and knowledge of ADHD.

Perold et al., (2010) conducted a study in towns on the periphery of Cape Town to measure teachers' knowledge and misconceptions of ADHD in three specific areas viz. symptoms and diagnosis of ADHD, general knowledge on the nature, causes and outcomes of ADHD, and on interventions. The authors used the Knowledge of Attention Deficit Disorders Scale to gather data (Perold et al., 2010). Results of the study showed that overall knowledge of ADHD was poor but that teachers were the most knowledgeable in the community about the symptoms and diagnosis, but performed poorly in terms of treatment and general knowledge.

### **2.9.2 Training of teachers**

Al-Moghamhsi and Aljohani (2018) conducted a study in India on the training of elementary school teachers in identifying learners with ADHD symptoms, and found that they benefitted from the training. They found that collaboration with the educational psychologists and the teachers in the training process was beneficial to them. The authors recommended that early screening of children with ADHD should be included as a subject in teacher training. Teachers should be encouraged to involve the parents in the process of learning in the child with ADHD. The authors recommended that further research be conducted to address the lack of knowledge and the misconceptions by teachers regarding ADHD.

Ostberg and Rydell (2012) ran parent and teacher training programme in Sweden called "Strategies in Everyday Life" which demonstrated clinically significant effects on several aspects of children's behaviour. The authors found that the effects were more prominent when both parties went for training. Teachers who had a low level of control and experienced more classroom conflicts benefitted most from this programme. This reflects positively in terms of parents and teachers undergoing some form of training as they are ultimately the caregivers of learners with ADHD.

Most teachers in Qatar come from other countries and teach in independent schools. Research by Bradshaw and Kamal (2013) showed that there was a lack of knowledge on ADHD amongst teachers. Due to an inclusive education approach in these schools, there are more learners with a high level of

needs in the classroom and there is limited knowledge on monitoring and treating learners with ADHD. Thus, there is a need for more professional development in schools in Qatar to assist teachers to better understand the symptoms, causes and their part in the treatment of children with ADHD. There was also found to be a need in training of undergraduates in special educational needs of ADHD which would allow for better management strategies in the classroom. Schools need to play a greater role in developing teachers in the area of ADHD by following up to see if any changes have been made in the teachers' beliefs and knowledge (Bradshaw & Kamal, 2013).

A study in Trinidad and Tobago by Youseff et al., (2015) found that teachers' overall knowledge regarding ADHD was low. They reported that in-service training for teachers concerning ADHD had led to a significant improvement in their knowledge, attitudes and management skills, therefore this was to be incorporated into the teacher training system at an undergraduate or postgraduate level. Such interventions can increase confidence in managing and improving overall classroom management of teaching children with ADHD.

In the United States of America, a large number of schools are experimenting with how to improve the climate within the school. Such improvements reduce disciplinary problems and behaviour problems. Firaldi et al., (2013) explored the use of expert consultants like psychiatrists, psychologists and other health care professionals who can offer training and support, as effective behavioural support teams within the school environment. These teams can further assist school districts and provide training and support to staff. They found that a "train the trainer" approach is efficient and cost effective whereby the consultants train and supervise senior clinicians in the district who in turn provide training for schools. For example, a leadership team is created in schools and they are trained and supported in the process of developing interventions with regard to ADHD and training the teachers. A positive behaviour support coach can also be trained to implement a multi-tier programme to improve, serve and support the unique needs of the child with ADHD. The funding is to be provided by federal and state agencies.

In South Africa there is a shortage of skills as well as a lack of training for teachers (De Jongh et al., 2019). The support of teachers should be seen as a lifelong investment as they require skills to assist the learner who exhibit signs of barriers to learning. Therefore, the need for support programmes to build capacity and raise the standard of education is of utmost importance in the South African context. De Jongh et al. (2019) stressed the use of the intervention research model as a framework for a support programme for Grade R teachers.

Arising from the study conducted by Perold et al. (2010) in the Cape Metropolitan area, findings were that teachers had very little or no training in managing ADHD in the classroom. Some of their knowledge was based on what they learned from the media which can be incorrect and not based on any scientific research. Therefore, inaccurate information about something as serious as ADHD

can result in teachers giving incorrect advice to parents and making inaccurate referrals. They will also fail to address ADHD effectively in the classroom environment.

Kern et al. (2015) studied South African Foundation Phase teachers' perceptions of ADHD at private and public schools and found that teacher training programmes, both pre- and in- service, should include the causes of the disorder. They should also be trained on how to screen and implement intervention strategies in the classroom. The causes should include systemic factors such as emotional stress caused by possible abuse or neglect, additional health problems, language barriers and socio-economic deprivation. The authors recommended that training must be coordinated between government departments and health professionals viz. neurologists, paediatricians and psychologists in the form of pamphlets, educational seminars and workshops. In the South African context providing of training to teachers would result in the successful implementation of inclusive education. Parents will also benefit as teachers will be able to work together with them in improving the teaching and learning environment for the learner with ADHD.

## **2.10 Treatment of ADHD**

### **2.10.1 Medical interventions**

The use of medication in the treatment of ADHD is extremely controversial. While some may agree that it does help, others are of the view that it impedes the child diagnosed with ADHD.

Keilow et al. (2018) found that ADHD is associated with a failure of children to reach a range of academic measures. They then proceeded to use Danish administrative data to study the impact of medication on the academic performance of learners who are diagnosed with ADHD. The main findings support the benefit of medical treatment on long term academic performance of children diagnosed with ADHD. The children used in the sample showed moderate to severe symptoms of ADHD. Despite there being alternate forms of intervention in the treatment of ADHD, which can be combined with the use of medication, it was found to help certain children diagnosed with ADHD.

Betker (2017) states that ADHD has a biological basis and that ADHD is genetically inherited and can run in families. Barkley and Murphy (2006) report that 80% of individuals who display symptoms of ADHD have inherited this as a genetic tendency. These genes are found to affect neurological functioning in the brain. There are chemicals which are called neurotransmitters which may not be released in proper proportions in the brain or is being absorbed too fast which may cause a chemical imbalance. This may also cause mood disorders. There are various types of medication which can be used to correct this imbalance. Stimulants assist with the release of neurotransmitters whereas reuptake inhibitors help to keep the level at a normal level. Prescription of medication and the dosage can only be discussed with a medical professional like a doctor who can decide which is the most effective type of medication.

Boseley (2018) states that Ritalin is commonly used in the treatment of ADHD and has proven to be

very effective. The author also states that it is the most effective drug being used on ADHD learners from the age of 6 and older. It can be prescribed to children younger than 6 years of age in cases where the symptoms are noticeable and the child is uncontrollable. It seems to work with certain chemicals in the brain causing stability in the behaviour of the learner for short periods of time. Learners are given any dosage from 5mg upwards and up to three times a day. Side effects of the drug include loss of appetite, nausea, headaches, drowsiness or an upset tummy. Some learners tend to lose weight while others tend to put on weight (Lavitt, 2014).

Bender (2017) conducted a study on the use of methylphenidate (Ritalin, Novartis and others) and found that the medication does improve the academic productivity of a child with ADHD, but does not improve accuracy and tends to have a greater effect on mathematics than on reading or spelling. There was also a small magnitude of short term and long-term effects of the drug which suggests that there is a potential for other types of intervention. Increasingly, a multimodal approach is favoured as compared to the use of medication only.

Felt et al. (2014) found that although medication does reduce the symptoms of ADHD in a child and improves their ability to handle general tasks and demands viz. note taking, quizzes, worksheets, written language and homework, they do not assist the child with normal skills like learning and application of knowledge. The authors also found that medication does not help with the improvement of a child's reading ability.

Thus, one can deduce that the use of medication only will not cure or improve a child's overall academic and behaviour performance in a learning environment. A multi-modal approach involving all stake holders is likely to benefit the child more positively.

### **2.10.2 Interventions**

Meerman et al. (2017) state that teachers and school personnel are normally the first to suggest that a learner has ADHD. Teachers also tend to feel insecure when dealing with behavioural problems and they also do not want to take responsibility for a learner who may have special needs.

Studies conducted by Pruthi (2019) at the Mayo Clinic, show that children with ADHD benefit from behaviour therapy, social skills training, parent skills training and counselling all of which can be provided by a psychiatrist, psychologist, social worker and other health care professionals viz., occupational therapist and speech and language therapists. Children who suffer from ADHD may also have other conditions like anxiety disorders, depression or autism. In behaviour therapy teachers and parents can practice behaviour changing strategies like implementing token reward systems and timeouts in difficult situations. It is imperative that children undergo social skills training so that they learn appropriate social behaviours. Parents also need to undergo skills training as this can help them to develop ways to understand and guide their child's behaviour. Psychotherapy will benefit older children with ADHD to discuss issues that trouble them, and how to deal with negative

behaviour and their symptoms. Family therapy is very important in that parents and siblings can also learn to deal with the stress of living with a child that has ADHD.

According to Miller (2019), young children with ADHD can benefit from systems that encourage positive behaviour, like the “Daily Report Card.” Star charts are also a common form of intervention. Learners who accumulate a high number of stars can be given rewards or treats. There are also behaviour management programmes which a teacher and parent can implement, such as rewards for good behaviour. Parents and teachers must work together to ensure the success of behaviour management programmes. Goals set must be realistic and entail tasks that an individual learner can achieve in terms of their academic work, behaviour and socialisation skills. This kind of system can be very helpful for children from preschool to as old as 12 (Miller, 2019).

Piffner and Haack (2015) studied behaviour management of school aged children with ADHD and found that behavioural therapy can help learners to develop an understanding of what positive behaviour is and what negative behaviour is. In this study, learners were rewarded for positive behaviour and demerited for negative behaviour so that they could understand the difference and act accordingly. This approach helps learners build their own coping mechanisms in situations, which is a form of therapy.

Another important factor is training learners with social skills (Low, 2019). Teachers and therapists can show learners what is acceptable and appropriate behaviours. They need to learn how to share, take turns, ask for assistance, be patient, and how to react to negative behaviours of other learners. Improving their social skills also helps with their interaction with other children and adults.

The best results, according to Pruthi (2019), occur when a multidimensional approach is used where teachers, parents, therapists and physicians work together in assisting the child with ADHD. Teachers need to educate themselves about ADHD and available services and resources to support the learner in the classroom.

Betker (2017) categorised interventions into the following: medical interventions, environmental modifications, academic skill building and social skill development. The author suggests that parents assist their children by making environmental modifications and using strategies like creating structure and routine around their day and making a time roster for each activity. They also need to keep checklists, provide cues, restrict auditory and visual distractions, provide various workstation options, provide movement breaks, focus tools, support for writing by being a scribe, or by using a technological device like a tablet, provide extra time in the completion of tasks either in the class or at home, help them to organise their files and books as well as their bedrooms at home. Children with ADHD often don't hear all the instructions given to them therefore it is important to check if they heard and understand what was being said. Ensure the child has more structured play and has one playmate at a time when s/he is socially interacting.

Based on the above research one can deduce that a child with ADHD needs a multi-faceted approach in the process of learning and teaching. This will also include the assistance of parents to ensure that they implement the same procedures and structures in the home environment as well.

### **2.10.3 Support offered for teachers of learners with ADHD**

#### **2.10.3.1 Additional support needs in special education in South Africa**

According to the SIAS policy document (Department of Basic Education, 2014), every learner may need support but some learners will need more support than others due to them having barriers to learning. These barriers may be caused by social, emotional, cognitive, linguistic, disabilities or lack of care from the family or at home. The learner who has behavioural difficulties or any other learning difficulties requires additional support. It may be short term or long term depending on the severity of the condition, thus the provision for the level of support depends on the learning ability of the child concerned. The different levels of support offered by the Department of Education are levels 1-2 which is the day-to-day level of support in the classroom, level 3 which is the moderate or middle level of support that involves the educators, SBST and parents, and levels 4-5 which is the high levels of support involving the educators, parents, SBST, DBST and officials and specialists (Ntseto, 2015). Each level will be explained below.

#### **2.10.3.2 The School Management Team (SMT)**

The South African Schools Act (Act 84 of 1996), introduced structures to democratise the management of schools, including SMTs which comprise heads of departments, deputy principals and the principals. The SMT has to ensure that the quality of learning and teaching is maintained by managing their role functions effectively, efficiently and successfully (Molefe, 2013). The principal is responsible for "The development of staff training programmes both school-based, school-focused and externally directed, and to assist teachers, particularly new and inexperienced teachers, in developing and achieving educational objectives in accordance with the needs of the school" (Ntsoane, 2017, p.2, citing the Department of Education, 1998).

Alberts (2016) states that the leadership of a school is paramount for developing policies, aims and strategies for creating an inclusive school culture, for providing support, and for identifying external factors that may hinder the development of an inclusive school environment. Thus, an effective and efficient SMT is very important in meeting the educational needs of the learner with special educational needs, viz. in this case being the learner with ADHD.

#### **2.10.3.3 School Based Support Team (SBST)**

According to the SIAS policy (2014) the SBST's main role is to determine the support needs of the school, teachers and learners and to provide this support. They are to meet regularly to fulfil these role functions. The team consists of the principal who is the chair and who ensures that the SBST functions accordingly, a member of the SMT, the SBST co-ordinator, and a teacher

representative from each phase. Additional members can be included especially specialists in the field. The SIAS policy (2014) states that the key functions of the SBST are:

- To co-ordinate all learner, teacher, curriculum and support in the school
- To identify the needs of the school with a focus on barriers to learning at the level of the learner, teacher, curriculum and school levels
- To be well versed in the SIAS policy and offering guidance to teachers in the SIAS support provision process
- To develop appropriate in-class and school-based strategies to address these needs
- To encourage peer support
- To use additional resources from within and outside the school to address these challenges
- To monitor and evaluate the progress made with the team within an action reaction framework

According to Nel et al. (2016), research conducted in South African schools has found that teachers are experiencing contextual problems such as the lack of formal structures like the SBST playing its role in education. Donahue and Bornman (2014) are of the view that the lack of functioning of the SBST in schools is due to a lack of funding and support from the Department of Education thereby making it difficult to make inclusive education a reality. The

SIAS policy (Department of Education, 2014) also states that should the SBST not be in a position to offer support to the teachers and learners then the DBST should offer additional support and monitoring.

#### **2.10.3.4 The District Based Support Team (DBST)**

The DBSTs are based at district office. They consist of learning support advisers, therapists, psychologists and special needs specialists, as well as other health and welfare professionals employed by the Department of Education (Department of Education, 2001a). In addition to these specialists, administrative experts, curriculum specialists, institutional development specialists and specialist support personnel and teachers also form part of the team. Makhalemele and Nel (2015) state that the aims of the SBST in South Africa are to transform the classroom practices by supporting learners with barriers to learning.

However, Nel et al. (2013) found that the DBSTs were not skilled enough to provide support to teachers. Nel et al. (2013) state that if the SBST is unable to offer support to the teacher and the learner, then the DBST is the next level of support. According to Makhalemele (2011), the DBSTs are not functioning successfully as they receive insufficient support from the national Department of Education, provincial departments and district offices. Omodan and Tsotetsi (2020) further state

that there is a lack of collaboration and co-operation between schools and their district offices in the implementation processes of inclusive education. Therefore, the current study explored the support teachers receive in their role of teaching learners with ADHD in the Foundation Phase.

### **2.11 Theoretical framework**

According to Cohen et al. (2018, p. 68) a theory is a statement, suggestion or proposition that brings together concepts and constructs into a coherent whole, framework or system which has clearly set limits and assumptions. The authors further state that a theory connects the researcher to existing knowledge in the field and identifies new issues in the field and provides a basis for the hypothesis formulation and testing.

The South African education system is based on inclusion which creates a challenge because of the complexity of influences, interactions and interrelationships between the person and multiple other systems that are connected from an ecological systems theory perspective (Landsberg, 2011, p.10). The education White Paper 6 policy (Department of Education, 2001b) provides key strategies with regard to the development of support structures. These strategies can be placed within Bronfenbrenner's ecological model (1979).

Bronfenbrenner (1979) saw the development of an individual in an ecological perspective. The relationships between individuals and their environments are viewed as "mutually shaping". He saw the individual's experience "as a set of nested structures, each inside the next, like a set of Russian dolls" (Bronfenbrenner, 1979). This is a multi-dimensional model of human development. The five interlocking structures are the micro, the meso, the exo, the macro and the chrono-structures whereby each structure influences the development of the learner and interacts with the other structures.

The micro-system is where the learner is the centre of the system and interacts with the family, the school and his/her peers. It is also the immediate environment viz. socially, psychologically, culturally and physically, that has an impact on the holistic development of the learner which results in changes and growth (Landsberg, 2011). Here the learner learns about the world around and is influenced by others' perspectives of the world and vice-versa.

Bronfenbrenner (1995) refers to this relationship as being bi-directional. Support for both teachers and learners should occur within this innermost structure. If the learner does not receive adequate support from the teacher or other support personnel, the development of the learner is negatively impacted thereby placing him/her at a further disadvantage, because as a learner with ADHD he/she already has a barrier to learning. In addition to this, when the teacher does not receive support from colleagues and other professionals, in their attempts to support the learner, this will also have a devastating impact on the development of the learner (Nel et al., 2016)

If a teacher fails in managing the classroom environment, then they have failed in managing a learner with ADHD. In this case the teacher would have a negative attitude which does not create a conducive environment (Lopes et al., 2009). A teacher spends most of the working day with learners and therefore it is important that the impact of learning and teaching be positive. Teachers have the opportunity to identify the characteristics of a learner with ADHD and seek proper intervention. The learner and the teacher can have a dyadic relationship in the classroom environment.

The meso-system is a set of micro-systems that continuously interact with one another (Donald et al., 2014, p. 46). According to Berns (2010), the home, siblings, family and school are components of the meso-systems which are interconnected and impact the development of the learner. In South Africa the support structures for schools, teachers and learners are found within the meso-system, namely, the SBST, DBST, full-service schools (FSS) and special schools that have been set up as resource centres (SSRC). Nel and Tlale (2016) state that interactions between the meso-systems need to be carried out effectively in order to influence the learning potential of the child to its highest level, in an educational setting.

The exosystem is where the learner does not interact directly. This could be where the extended family, parents' work environments, the neighbourhood and mass media are role players which affect the functioning of the support structures discussed by the researcher earlier.

The macro-system is viewed by Bronfenbrenner (1989) as the overarching ideology and organisation of social institutions that are found in a culture, i.e. the ways of people. Cultural contexts would include socioeconomic status, poverty, and ethnicity (Nel, 2014). National policies and the implementation of laws in education, e.g. White Paper 6 (Department of Education, 2001b), SIAS (Department of Basic Education, 2014) and Guidelines for Inclusive Learning Programmes (Department of Basic Education, 2010) have an impact on the teachers and learners who need support (Nel et al., 2016). Within an educational context one needs to consider the community in which the school is situated, specialists within the Department of Education like psychologists, and the Department of Education in general.

This theory is regarded as having many layers that are intertwined and therefore affect each other. According to Paquette and Ryan (2001), children react differently to changes in their environment, thus support structures in the education system need to consider the changing needs of the learners and teachers in order to provide successful support. The development of an ADHD learner is dependent on the teacher as well as interactions within the various support structures within the system.

### **2.11.1 The Bronfenbrenner Model**

The Bronfenbrenner Model, elucidated by Symons (2015), provides a holistic framework encompassing

micro, meso, exo, macro, and chrono systems. According to Symons, individuals, including learners with ADHD, actively participate in their own development, and their experiences are profoundly influenced by the environments they inhabit.

ADHD, being a complex disorder, is not solely a product of individual characteristics but is deeply entwined with the systems operating in the educational environment. Symons (2015) emphasizes the need to consider various ecological systems to comprehend the challenges and opportunities present in the teaching and learning experiences of children with ADHD. This consideration becomes particularly relevant in the South African education system, a multifaceted structure comprising layers that can potentially provide crucial support for both educators and learners.

Amod et al. (2013) contribute to this perspective by highlighting the interconnectedness of factors such as poverty, living conditions, family dynamics, parenting styles, and the support structures within the Department of Education. The influence of these factors cannot be viewed in isolation, and their collective impact on the educational landscape requires careful consideration.

In this context, proper diagnosis is emphasized as a critical step in understanding ADHD. Learners with ADHD may exhibit diverse behaviours in different environments, and recognizing these variations is crucial for shaping effective interventions that consider the multifaceted nature of human development.

The study, framed around Bronfenbrenner's ecological theory, underscores the relevance of this model in unpacking the layers of influence on teachers' reflections in the context of teaching learners with ADHD. This theoretical lens encapsulates essential concepts, each playing a distinctive role:

- **Microsystem:** This involves immediate environments, such as the classroom, where direct interactions between teachers and learners occur (Symons, 2015). The microsystem is where the intricacies of daily teaching practices and interactions unfold.
- **Mesosystem:** This explores the connections between various microsystems, delving into the interrelation between the school system and support structures within the broader community (Amod et al., 2013). It sheds light on how these interconnected systems collectively shape the educational experience.
- **Exosystem:** The exosystem includes external settings indirectly impacting learners, such as government policies and the Department of Education (Amod et al., 2013). This layer addresses the broader institutional context influencing the teaching and learning environment.
- **Macrosystem:** This encompasses broader cultural influences shaping perceptions of ADHD within the South African context (Amod et al., 2013). It recognizes the importance of cultural factors in understanding the experiences of educators and learners.
- **Chronosystem:** The chronosystem recognizes the changes that occur over time, considering evolving interventions and educational policies related to ADHD (Symons, 2015). This temporal dimension acknowledges the dynamic nature of the educational landscape.

This theoretical framework served as a comprehensive lens through which the study's findings were interpreted. By adopting the Bronfenbrenner Model, the study aimed to reveal the intricate interplay of ecological systems influencing teachers' reflections and the support structures available for both educators and learners within the South African educational context. Through this lens, the study sought to contribute a nuanced understanding that goes beyond individual perspectives, acknowledging the broader ecological context shaping the experiences of teaching and learning for learners with ADHD.

## **2.12 Objective based literature review**

### **2.12.1 What are teachers' reflections on their support for learners with ADHD in the Foundation Phase?**

ADHD is a common neurodevelopmental disorder that affects approximately 5% to 10% of school-aged children worldwide (Faraone et al., 2015). ADHD is characterised by symptoms of inattention, hyperactivity, and impulsivity, which can significantly impact an individual's academic, social, and emotional functioning (American Psychiatric Association, 2013). Children with ADHD often experience difficulties with executive functioning, such as working memory, inhibition, and cognitive flexibility, which can impact their ability to regulate their behaviour and control their emotions (Barkley, 2015).

In the educational context, teachers play a crucial role in supporting learners with ADHD and creating an inclusive and supportive learning environment that meets the diverse needs of all learners. However, supporting learners with ADHD can be challenging for teachers, as they often lack knowledge, training, and resources to effectively address the unique needs of these learners (DuPaul et al., 2014). Moreover, teachers may hold negative attitudes towards ADHD or have misconceptions about the disorder, which can lead to ineffective or punitive approaches to managing learners with ADHD (Power et al., 2019).

Studies conducted in different countries have highlighted the challenges that teachers face in supporting learners with ADHD in the early years, particularly in the Foundation Phase (grades R-3). For example, a study conducted in the United States found that teachers often struggle to differentiate between typical developmental behaviours and symptoms of ADHD, which can lead to over- or under-identification of learners with the disorder (DuPaul, Eckert and Vilaro (2012). Another study, conducted in Australia, found that teachers often lack knowledge and training in evidence-based practices for supporting learners with ADHD, such as behavioural interventions and accommodations (Power et al., 2019).

Furthermore, studies have shown that the support that learners with ADHD receive in the early years can significantly impact their academic and social outcomes. For example, a study conducted in the United States found that learners with ADHD in the early years who received appropriate support, such as behavioural interventions and accommodations, had better academic and social

outcomes than those who did not receive such support (Murray et al., 2018). Similarly, a study conducted in Canada found that early intervention for learners with ADHD, including parent and teacher training in behavioural management strategies, can lead to improvements in academic and social outcomes (Péladeau et al., 2019).

In South Africa, research on the experiences of learners with ADHD in the Foundation Phase is limited, and little is known about the support that teachers provide to these learners. However, studies have highlighted the need for greater awareness and understanding of ADHD in the South African context, particularly among teachers and other professionals who work with children (Bhana, Mellins and Peterson, 2016; Swart et al., 2017). Furthermore, research has shown that children with ADHD in South Africa often experience stigma, discrimination, and exclusion, which can exacerbate their difficulties and negatively impact their academic and social outcomes (Swart et al., 2017).

### **2.12.2 Behavioural intervention strategies used by teachers**

Behavioural interventions are a commonly used strategy by teachers in managing ADHD in the classroom. These interventions aim to help learners with ADHD to manage their behaviour and improve their academic outcomes. Several studies have examined the effectiveness of behavioural interventions in managing ADHD symptoms in the classroom.

One commonly used behavioural intervention is the token economy system, where learners earn tokens or points for positive behaviour and lose them for negative behaviour. This system has been found to be effective in reducing disruptive behaviour and improving academic performance in learners with ADHD (Coelho et al., 2015). A study by Pelham and Fabiano (2008) found that a token economy system was effective in improving on-task behaviour and reducing disruptive behaviour in learners with ADHD in a classroom setting.

Another behavioural intervention commonly used by teachers is self-monitoring, where learners with ADHD are taught to monitor their own behaviour and use self-regulation strategies. A study by Du Paul, Stoner and O'Reilly (2014) found that self-monitoring interventions led to improvements in academic outcomes and behavioural functioning in learners with ADHD.

Behavioural interventions may also involve teaching learners with ADHD social skills, such as how to interact with peers and respond appropriately to social situations. A study by Fabiano et al., (2015) found that a social skills intervention was effective in improving social skills and reducing disruptive behaviour in learners with ADHD.

The effectiveness of behavioural interventions depends on the individual needs and strengths of learners with ADHD. Therefore, it is important for teachers to use a combination of strategies and

to tailor their interventions to the specific needs of each learner with ADHD. Numerous studies have investigated the effectiveness of behavioural interventions in managing ADHD symptoms in the classroom. For instance, a study by Pelham et al. (2014) found that a token economy system was effective in improving on-task behaviour and reducing disruptive behaviour in learners with ADHD in a classroom setting. Similarly, self-monitoring interventions have been shown to lead to improvements in academic outcomes and behavioural functioning in learners with ADHD, as demonstrated in a study by DuPaul et al. (2014). Fabiano et al. (2015) also found that social skills interventions were effective in improving social skills and reducing disruptive behaviour in learners with ADHD. These findings highlight the importance of using behavioural interventions as part of a comprehensive approach to managing ADHD in the classroom, with interventions tailored to meet the specific needs of each learner with ADHD (Coelho et al. 2015).

### **2.12.3 Structured routines and schedules to managing symptoms of ADHD**

Structured routines and schedules have been identified as an effective intervention for managing symptoms of ADHD in learners. The use of structured routines and schedules helps to promote predictability, consistency, and organisation in the classroom, which can benefit learners with ADHD who may struggle with executive functioning skills (Barkley, 2015).

A study by Owens et al., (2016) found that implementing a structured daily routine in the classroom resulted in improvements in on-task behaviour and academic performance in learners with ADHD. Similarly, a study by Chronis-Tuscano et al. (2018) found that providing daily schedules and routines improved the behavioural and academic outcomes of learners with ADHD.

Furthermore, a review by Langberg et al., (2012) found that using visual schedules and checklists can be particularly helpful for learners with ADHD. The use of visual aids helps to make abstract concepts more concrete and provides learners with a visual cue to help them remember what they need to do. Visual aids can also be used to break down complex tasks into smaller, more manageable steps, which can be especially beneficial for learners with ADHD who may struggle with task initiation and completion.

In addition to the benefits for learners with ADHD, structured routines and schedules can also be beneficial for teachers, as they can help to promote a more organised and predictable classroom environment (Sutherland & Wehby, 2001). The literature suggests that the use of structured routines and schedules can be an effective intervention for managing symptoms of ADHD in learners. However, it is important for educators to individualise these interventions to meet the unique needs of each learner with ADHD (Spiel, Evans and Langberg, 2014).

### **2.12.4 Individualised instruction as a strategy to manage ADHD**

Individualised instruction has been identified as a potential strategy to manage ADHD symptoms in learners. Individualised instruction involves tailoring teaching methods and materials to meet

the unique needs of each learner, which may be particularly beneficial for learners with ADHD who may have varying levels of attention, impulsivity, and hyperactivity (Miciak et al., 2016).

Raggi and Chronis-Tuscano (2013) found that individualised instruction can improve academic performance and reduce behavioural problems in learners with ADHD. The study involved providing learners with individualised instruction in a small group setting that focused on their specific academic needs, as well as social and emotional regulation skills. The results showed significant improvements in academic performance and reductions in behavioural problems.

Klassen and Lynch (2013) found that providing individualised instruction through the use of computer-based programmes can improve academic outcomes for learners with ADHD. The study involved providing learners with a computer-based programme that adapted to their individual learning needs and preferences. The results showed significant improvements in academic performance and a reduction in behavioural problems.

In addition to improving academic outcomes, individualised instruction can also help to improve learners' self-esteem and motivation (DuPaul et al., 2012). By tailoring instruction to the specific needs and interests of each learner, educators can help to create a more positive learning environment and foster a sense of engagement and ownership in the learning process. However, it is important to note that individualised instruction may require additional resources and planning on the part of educators (Langberg et al., 2010). Educators may need to conduct regular assessments to identify each learner's individual needs, adapt materials and teaching methods accordingly, and provide ongoing support and feedback.

#### **2.12.5 Environmental modifications as a strategy to manage ADHD**

Environmental modifications have been identified as an effective strategy for managing ADHD symptoms in learners. This strategy involves modifying the classroom environment to reduce distractions and promote a more structured and organised learning environment (Langberg et al., 2010). One environmental modification strategy is the use of classroom rules and routines. Establishing clear and consistent rules and routines can help learners with ADHD to better understand expectations and reduce their level of stress and anxiety (Sibley et al., 2014). Classroom routines can also help learners to develop a sense of predictability and structure, which may reduce the likelihood of impulsive behaviours.

Another environmental modification strategy is the use of visual aids. Visual aids can help to reinforce classroom rules and routines, as well as provide learners with visual reminders of tasks and expectations (Mauton et al., 2012). Examples of visual aids include posters, checklists, and schedules. In addition, educators can modify the physical environment to reduce distractions. This can include rearranging furniture to reduce clutter, minimising visual distractions such as posters or decorations, and using noise-cancelling headphones to reduce auditory distractions (Langberg et

al., 2010).

Research has shown that environmental modifications can be an effective strategy for managing ADHD symptoms in learners. A study by Sibley et al. (2014) found that the use of classroom rules and routines was associated with reductions in disruptive behaviours and improved academic engagement in learners with ADHD. Similarly, Mautone et al. (2012) found that the use of visual aids was associated with improvements in academic performance and reductions in disruptive behaviours. However, it is important to note that environmental modifications may need to be tailored to the specific needs of each learner (Langberg et al., 2010). Educators may need to conduct regular assessments to identify potential environmental barriers to learning and make necessary modifications.

#### **2.12.6 Teacher-parent collaboration as a strategy to manage ADHD**

Teacher-parent collaboration has been identified as an important strategy for managing ADHD symptoms in learners. Collaboration between teachers and parents can help to establish consistent and effective behavioural interventions across different settings (e.g., home and school), which can promote better outcomes for learners with ADHD (Power et al., 2012).

Effective teacher-parent collaboration typically involves regular communication and sharing of information regarding the learner's progress and challenges. This can include sharing information about effective strategies that have been implemented at home or in the classroom, and coordinating efforts to support the learner's academic and socio-emotional needs (Langberg et al., 2013).

One approach to teacher-parent collaboration is the use of parent-teacher conferences. These conferences provide an opportunity for teachers and parents to discuss a learner's progress and identify areas of concern. Teachers can share information about classroom-based interventions and seek input from parents regarding strategies that have been effective at home (Power et al., 2012). Another approach to teacher-parent collaboration is the use of behavioural contracts. These contracts establish clear expectations and consequences for a learner's behaviour, and involves input from both the teacher and parent. Behavioural contracts can help to promote consistency across settings and encourage learners to take responsibility for their behaviour (DuPaul et al., 2012).

Research has shown that teacher-parent collaboration can be an effective strategy for managing ADHD symptoms in learners. A study by Langberg et al. (2013) found that increased communication between teachers and parents was associated with improvements in academic performance and reductions in disruptive behaviours. Similarly, a study by Power et al. (2012) found that teacher-parent collaboration was associated with improved social skills and fewer problem behaviours in learners with ADHD. Effective teacher-parent collaboration may require overcoming barriers such as scheduling conflicts or differences in perspectives regarding the learner's needs (DuPaul et al.,

2012). Educators may need to provide training and support for parents to help facilitate effective collaboration.

### **2.13 Challenges faced by teachers in managing learners with ADHD**

#### **2.13.1 Lack of knowledge and understanding of ADHD as a challenge faced by teachers**

ADHD is a neurological condition that affects a child's ability to concentrate, control impulses, and manage their behaviour appropriately. Children with ADHD often experience difficulty in the classroom, which can lead to poor academic performance and disruptive behaviour (Barkley, 2015). Therefore, it is important for teachers to understand the nature of ADHD, its impact on learning, and effective strategies for managing the symptoms.

Studies have shown that teachers often lack knowledge and understanding of ADHD, which can lead to frustration and ineffective teaching strategies (DuPaul et al., 2014; Mitchell et al., 2015). Teachers may not recognise the symptoms of ADHD, misinterpret them as wilful misbehaviour, or confuse ADHD with other behavioural disorders (Mitchell et al., 2015). This lack of knowledge can lead to inappropriate disciplinary actions, which may exacerbate the child's behaviour problems (DuPaul, et al., 2014).

Teachers may also have misconceptions about the effectiveness of medication for ADHD, leading to reluctance in recommending medication to parents (Mitchell et al., 2015). This reluctance may stem from concerns about the potential side effects of medication or a belief that medication is not necessary (DuPaul, et al., 2014). Teachers may lack knowledge of evidence-based strategies for managing ADHD in the classroom, such as behavioural interventions, environmental modifications, and individualised instruction (Mitchell et al., 2015). Without this knowledge, teachers may struggle to effectively manage the symptoms of ADHD in the classroom, leading to frustration and burnout.

#### **2.13.2 Lack of adequate resources**

The effective management of learners with ADHD in the Foundation Phase requires appropriate resources, including educational materials, equipment, and specialised services. However, schools often face significant challenges in providing these resources, which can hinder teachers' ability to effectively support learners with ADHD.

Limited funding is a common barrier to providing resources for learners with ADHD (Chamberlain et al., 2018). Schools may not have the financial resources to purchase the necessary materials and equipment, or to hire additional support staff, such as school psychologists or occupational therapists, who can provide specialised services to learners with ADHD.

In addition to financial barriers, schools may also face logistical challenges in providing resources

for learners with ADHD. For example, schools may have limited physical space, making it difficult to create a learning environment that is conducive to learners with ADHD. Similarly, schools may have limited access to technology or assistive devices, which can hinder learners with ADHD from accessing the curriculum (Chamberlain et al., 2018).

Moreover, schools may face staffing challenges that limit their ability to provide support for learners with ADHD. Teachers may not have the necessary training or expertise to effectively manage learners with ADHD, and may not have access to professional development opportunities that could help them acquire these skills (DuPaul, et al., 2014). Additionally, schools may not have enough support staff to provide individualised attention and support to learners with ADHD, which can lead to classroom management challenges and poor academic outcomes.

### **2.13.3 Lack of administrative support**

Administrative support plays a critical role in enabling teachers to provide effective support to learners with ADHD in the Foundation Phase. However, a lack of administrative support can create significant barriers for teachers, hindering their ability to effectively manage learners with ADHD. One of the main challenges that teachers face is a lack of support from school administrators in implementing appropriate strategies and accommodations for learners with ADHD. Teachers may not have the necessary authority to make decisions about accommodations, or may not have the necessary resources and support to implement them effectively (Schoemann et al., 2014).

Another challenge is the lack of clear policies and guidelines around supporting learners with ADHD. This can create confusion among teachers, making it difficult to know how to best support learners with ADHD (Braude and Dwarika, 2020). In addition, a lack of standardised procedures for identifying and assessing learners with ADHD can make it difficult for teachers to provide appropriate support and accommodations.

Furthermore, teachers may not receive adequate support from school administrators in terms of professional development opportunities. Without access to ongoing training and support, teachers may struggle to stay up-to-date with the latest research and best practices for supporting learners with ADHD (Braude and Dwarika, 2020). This can hinder their ability to effectively manage learners with ADHD and support their academic success.

### **2.13.4 Inadequate training/ continuous training**

Several studies have highlighted the lack of continuous training as a significant challenge faced by teachers in managing ADHD in the classroom (Abikoff et al., (2013). Classroom interventions for ADHD. In the Handbook of attention deficit hyperactivity disorder (pp. 449- 466). Springer., 2013; Gormley, 2015; Shah & Kulkarni, 2018). According to Abikoff et al. (2013), teachers often have inadequate knowledge of ADHD and the appropriate interventions needed to support learners with the condition. This lack of knowledge can lead to ineffective or even harmful approaches to

managing ADHD, such as punishing learners for behaviours they cannot control (Gormley, 2015).

Furthermore, many teachers report feeling unprepared to address the needs of learners with ADHD in the classroom (Shah & Kulkarni, 2018). They may not have received adequate training in how to create and implement behaviour management plans or how to differentiate instruction for learners with ADHD (Gormley, 2015). This lack of training can result in frustration and burnout for teachers who feel ill-equipped to meet the needs of these learners (Abikoff et al., 2013).

In addition, the lack of continuous training can result in out-dated knowledge and approaches to managing ADHD (Shah & Kulkarni, 2018). As our understanding of ADHD and effective interventions continues to evolve, it is crucial that teachers receive ongoing professional development to stay up to date with best practices (Gormley, 2015). Without this ongoing training, teachers may struggle to provide effective support to learners with ADHD, leading to poor academic and social outcomes for these learners.

#### **2.14 Research gap**

Current literature predominantly emphasizes intervention strategies and accommodations for learners with ADHD, often from clinical or psychological perspectives (DuPaul et al., 2016; Raggi & Chronis-Tuscano, 2006). While these studies offer crucial insights into evidence-based practices, they tend to overlook the subjective experiences of teachers in managing the day-to-day realities of the classroom with learners experiencing ADHD. ADHD, characterized by inattention, hyperactivity, and impulsivity, significantly impacts the academic and social experiences of learners (American Psychiatric Association, 2013). In the foundation phase, when foundational skills are established, the challenges posed by ADHD can be particularly pronounced. Effective support necessitates a nuanced understanding of how teachers, as frontline educators, cope with these challenges on a personal level.

Teachers are on the frontline, facing the day-to-day challenges of managing diverse classrooms. An exploration of how teachers cope on a personal level reveals nuanced adaptive strategies employed within the educational setting. These coping mechanisms extend beyond conventional teaching methodologies and encompass mental frameworks, stress management techniques, and self-regulation mechanisms. For instance, a teacher might adopt a personalized approach to organizing lesson plans to accommodate the specific needs of learners with ADHD, showcasing resilience and adaptability (Hargreaves, 2000). Understanding these individual coping strategies is vital for identifying effective practices that contribute to a supportive learning environment.

Supporting learners with ADHD is not only a cognitive challenge but also an emotional journey for teachers. The emotional responses evoked in teachers, including empathy, frustration, and satisfaction, remain underexplored in the existing literature. Delving into these emotional dimensions provides valuable insights into the emotional labour associated with teaching learners with ADHD. For example,

a teacher's ability to empathize with the unique struggles of a learner with ADHD may influence the effectiveness of classroom interventions (Sutton & Wheatley, 2003). Understanding these emotional responses is crucial for fostering a compassionate and empathetic educational environment.

The coping mechanisms employed by teachers in addressing the needs of learners with ADHD may have profound implications for their own well-being. The stressors and challenges associated with supporting learners with ADHD can contribute to teacher burnout and impact mental health. Research in this area can illuminate these potential stressors, identify factors contributing to burnout, and provide insights into the overall impact on the well-being of teachers (Kyriacou, 2001). This understanding is vital for developing targeted interventions to support teacher mental health and ensure sustained effectiveness in the classroom.

Teachers' personal coping mechanisms represent a valuable source of information for designing effective professional development programs. Identifying areas where teachers feel less equipped or more stressed can guide the development of training initiatives tailored to enhance coping skills in ADHD-related contexts. For example, if teachers express challenges in managing classroom disruptions, targeted professional development can provide strategies for creating structured and supportive learning environments (Ingersoll & Strong, 2011). This tailored approach ensures that professional development aligns with the specific needs and challenges faced by teachers in the foundation phase.

## **2.15 Conclusion**

This chapter reviewed the literature pertaining to teachers' reflections on teaching learners with ADHD in the Foundation Phase. The focus was on a definition of ADHD and the causes viz. neurological factors, genetic factors, prenatal factors, environmental factors as well as other psychological disorders that can accompany ADHD. Academic and educational factors of children with ADHD were addressed in terms of the role of the teacher, the knowledge of teacher in terms of teaching learners with ADHD, and training that the teacher had received in their undergraduate and postgraduate studies. The researcher also looked at the need for a group of specialists (viz. the parents, the class teacher, the school and specialists in the Department of Education) to work as a team in supporting the learner diagnosed with ADHD. The application of Bronfenbrenner's ecological theory is suitable and relevant to this study. The treatment of learners with ADHD was also researched. The next chapter will discuss the research methodology.

## CHAPTER 3: RESEARCH METHODOLOGY

### 3.1 Introduction

This chapter presents the methodology employed in the current research, which aims to explore teachers' reflections on their support for learners with ADHD in the Foundation Phase. The chapter outlines the research design, research paradigm, research strategy, data generation methods, data analysis procedures, and ethical considerations. The chosen methodology is crucial for ensuring the validity, reliability, and trustworthiness of the study findings. By providing a detailed account of the research methodology, this chapter establishes a strong foundation for the research process and highlights the systematic approach taken to address the research objectives.

### 3.2 Research philosophy

The research paradigm of this study is constructivism, which views knowledge as constructed through social interactions and experiences (Creswell, 2014; Denzin & Lincoln, 2011). This paradigm recognises the importance of individual perspectives and experiences in shaping knowledge and understanding (Crotty, 1998). The focus of this paradigm is on the subjective interpretations of individuals and how they create meaning from their experiences (Guba and Lincoln, 1994). In this study, the aim was to explore and understand teachers' reflections on their support for learners with ADHD in the Foundation Phase.

Other paradigms that could be considered in this study include positivism, interpretivism, and critical theory. Positivism is a paradigm that emphasises the use of objective methods and scientific observation to study social phenomena (Bryman, 2015). Interpretivism, on the other hand, emphasises the importance of subjective interpretation and understanding of social phenomena (Creswell, 2014). Critical theory focuses on analysing the power structures and societal norms that shape social phenomena (Kincheloe, 2004).

The constructivist paradigm was the most appropriate for this study as it allows for a more holistic exploration of teachers' experiences, perceptions, and practices in supporting learners with ADHD in the Foundation Phase. The constructivist paradigm recognises that knowledge is constructed through social interactions (Crotty, 1998), which is particularly relevant in the context of this study, as it involved exploring the subjective interpretations of teachers' experiences in supporting learners with ADHD. This paradigm also allows for the exploration of the complexities of the issue, including the challenges faced by teachers and their strategies for supporting ADHD learners.

In addition, the constructivist paradigm aligns well with the qualitative research approach and phenomenological design that were utilised in this study. This approach allows for an in-depth exploration of the participants' experiences and perspectives and emphasises the importance of context and individual interpretation (Creswell, 2014; Denzin & Lincoln, 2011). The constructivist

paradigm was the most appropriate for this study as it allowed for a more comprehensive exploration of the subjective experiences, perceptions, and practices of teachers in supporting learners with ADHD in the Foundation Phase. The focus on social interactions and individual perspectives aligns well with the qualitative research approach and phenomenological design that were utilised in this study.

### **3.2 Research strategy**

Phenomenology: The research strategy adopted in this study was phenomenology, which was used to explore the lived experiences and subjective interpretations of teachers regarding their support for learners with ADHD (Creswell, 2014; Denzin & Lincoln, 2011). Phenomenology focuses on understanding the essence of lived experiences from the perspective of individuals who have direct involvement in the phenomenon being studied (Creswell, 2014). It seeks to explore the subjective interpretations and meanings that individuals attach to their experiences, allowing for a deep understanding of their perspectives (Denzin & Lincoln, 2011).

In the context of this study, adopting a phenomenological research strategy enabled an exploration of teachers' reflections on their support for learners with attention deficit hyperactivity disorder (ADHD) in the Foundation Phase. Phenomenology recognises that individuals have unique experiences and interpretations of phenomena, emphasising the importance of capturing these lived experiences (Creswell, 2014).

By conducting individual semi-structured interviews with teachers, the researcher could delve into the rich descriptions and narratives provided by the participants. This approach allowed teachers to reflect on their experiences, challenges, strategies, and perceptions related to supporting learners with ADHD. The focus was not solely on gathering factual information but on understanding the subjective and personal aspects of their experiences (Creswell, 2014).

Through phenomenology, the study aimed to uncover the underlying themes and essences of teachers' reflections on supporting learners with ADHD. It sought to explore how teachers make sense of their interactions with these students, the strategies they employ, and their perceptions of the effectiveness of these strategies. This strategy allowed for a deeper understanding of the complexities and nuances of teachers' experiences, providing insights into the lived reality of supporting learners with ADHD in the Foundation Phase.

In summary, the phenomenological research strategy employed in this study facilitated an exploration of teachers' lived experiences, subjective interpretations, and reflections on supporting learners with ADHD. It allowed for an in-depth understanding of the personal meaning teachers attribute to their interactions with these students, shedding light on the challenges they face and the strategies they employ to provide effective support.

There are several other research strategies that could be considered for studying teachers' reflections on their support for learners with ADHD in the Foundation Phase. These include ethnography, case study, and grounded theory.

- i. Ethnography: Ethnography involves immersing oneself in the research setting to gain a deep understanding of the cultural and social aspects that influence the phenomenon under study. It emphasises observing and documenting participants' behaviours, interactions, and contexts (Denzin & Lincoln, 2011).
- ii. Case Study: Case study research involves in-depth investigation of a specific case or a small number of cases. It seeks to understand the complexities and unique characteristics of the cases being studied and is often used when contextual factors play a significant role (Yin, 2018).
- iii. Grounded Theory: Grounded theory is an iterative and systematic approach to theory development. It involves generating theories that emerge from the data through a constant process of data generation, coding, and analysis (Charmaz, 2014).

### **3.3 Justification for phenomenology**

Justification for the selection of phenomenology as the research strategy lies in its compatibility with the research objectives and the nature of the phenomenon being studied. Phenomenology focuses on understanding the lived experiences and subjective interpretations of individuals, which aligns closely with the aim of exploring teachers' reflections and perspectives on supporting learners with ADHD (Creswell, 2014; Denzin & Lincoln, 2011).

By using phenomenology, the researcher gained insights into the personal meanings, perceptions, and challenges that teachers encounter in their interactions with learners with ADHD. The strategy allowed for an exploration of the unique experiences of teachers, helping to capture the essence of their reflections and practices. This approach was particularly suitable when aiming to understand the subjective aspects of individuals' experiences and the contextual factors that shape their support for learners with ADHD in the Foundation Phase.

### **3.4 Research approach**

The research approach employed for this study was a qualitative research approach, specifically employing thematic analysis as the data analysis technique. Qualitative research is well-suited for exploring complex phenomena, such as teachers' reflections and experiences, in depth and detail (Braun & Clarke, 2019). It allows for the exploration of subjective perspectives, contextual factors, and social interactions, providing a rich understanding of the research topic.

Thematic analysis was selected as the data analysis technique due to its flexibility and ability to identify patterns, themes, and meanings within qualitative data (Braun & Clarke, 2019). This approach involves systematically organising and interpreting qualitative data to uncover recurring themes or patterns, which represent the underlying meanings and experiences expressed by the

participants.

The research strategy involved several key steps. Firstly, the data generation process was conducted using semi-structured interviews. This method allowed for open-ended discussions with participants, providing an opportunity to explore their reflections on supporting learners with ADHD in the Foundation Phase. The interviews were audio-recorded and transcribed verbatim to ensure accuracy in capturing participants' responses.

Following the data generation phase, thematic analysis was employed to analyse the interview transcripts. This involved several iterative stages, including familiarisation with the data, generating initial codes, searching for themes, reviewing and refining themes, and defining and naming final themes (Braun & Clarke, 2019). Through this process, the researcher systematically identified patterns, connections, and interpretations within the data, leading to the development of themes that captured the essence of the teachers' reflections.

The research strategy ensured rigour and trustworthiness in the study. This was achieved through various strategies such as maintaining a reflexive journal to document the researcher's own biases and assumptions, employing member checking by sharing findings with participants to validate interpretations, and seeking peer debriefing and feedback from other researchers to enhance the credibility and confirmability of the findings (Braun & Clarke, 2019).

By employing a qualitative research strategy with thematic analysis, this study aimed to provide a comprehensive and in-depth understanding of teachers' reflections on supporting learners with ADHD in the Foundation Phase. The research strategy allowed for the exploration of complex experiences, perspectives, and challenges faced by teachers, contributing valuable insights to inform educational practices and interventions for learners with ADHD.

### **3.4.1 Justification for qualitative research**

The qualitative research approach was chosen for this study due to its suitability for exploring the complex and subjective nature of teachers' reflections and experiences in supporting learners with ADHD in the Foundation Phase. Qualitative research allows for an in-depth understanding of participants' perspectives, contextual factors, and the social and educational dynamics involved (Merriam, 2009).

By employing qualitative methods, the study captured the rich and nuanced accounts of teachers' experiences, perceptions, and practices in supporting learners with ADHD. This approach enabled the exploration of individual voices and the understanding of the multiple factors that shape teachers' decision-making, instructional strategies, and interactions with learners (Creswell, 2013).

Moreover, qualitative research was well-suited for investigating the meanings, interpretations, and emotions associated with supporting learners with ADHD, as it allows for the exploration of

participants' lived experiences and subjective realities (Merriam, 2009). This approach provides an opportunity to uncover the complexities, challenges, and insights that may not be easily captured through quantitative methods.

Additionally, qualitative research promoted a deep understanding of the specific educational context of the Foundation Phase, including the unique pedagogical practices, classroom dynamics, and cultural influences that shape teachers' support for learners with ADHD (Creswell, 2013). By delving into the contextual nuances, qualitative research provided valuable insights into the interplay between teachers, learners, and the broader educational environment.

The selection of a qualitative research approach aligns with the overall aim of the study, which was to gain a comprehensive understanding of teachers' reflections on supporting learners with ADHD. By employing qualitative methods, the study can generate rich and contextually embedded data that can inform educational policies, interventions, and professional development initiatives aimed at enhancing support for learners with ADHD in the Foundation Phase.

### **3.5 Research design**

The research design of a study can be described as "a strategic framework for action that serves as a bridge between research questions and the execution or implementation of the research" (Terrablanche et al., 2006, p. 34). The case study research design was employed for this study, focusing on gathering in-depth insights into teachers' reflections and experiences in supporting learners with ADHD in the Foundation Phase. The case study design allows for the exploration of a specific phenomenon within its real-life context, providing rich and detailed data that can inform practice and generate theoretical understanding (Yin, 2018).

In this study, the case was the "support for learners with ADHD in the Foundation Phase", and the unit of analysis was individual teachers. By selecting individual teachers as the cases, the research design aimed to gain a comprehensive understanding of their unique perspectives, practices, and challenges in supporting learners with ADHD.

The case study design involves multiple data generation methods to gather rich and diverse data. Firstly, semi-structured interviews were conducted to explore teachers' reflections on their support for learners with ADHD. These interviews provided an opportunity for participants to express their experiences, beliefs, and strategies related to supporting learners with ADHD. Additionally, classroom observations and document analysis (e.g., lesson plans, instructional materials) were used to triangulate and complement the interview data, providing a more comprehensive understanding of the phenomenon under investigation (Yin, 2018).

The case study design also considers the contextual factors that influence teachers' support for learners with ADHD. The study acknowledged that teachers operate within a specific educational

context, including school policies, resources, and professional development opportunities. By examining the contextual elements, the research design aimed to capture the interplay between individual teachers' experiences and the broader organisational and systemic factors that shape their support for learners with ADHD.

Through the case study research design, the study provided detailed and contextually rich insights into teachers' reflections on supporting learners with ADHD in the Foundation Phase. The design facilitated a deep exploration of individual experiences, practices, and perspectives, allowing for the identification of patterns, themes, and implications that can inform educational policies, professional development initiatives, and support interventions for learners with ADHD.

### **3.6 Target population**

The target population for this study included teachers who were directly involved in providing education and support to learners with ADHD in the Foundation Phase. The Foundation Phase typically encompasses the early years of formal education, including preschool, kindergarten, and the early primary grades. The selection of this target population was driven by the aim to gain insights into the specific experiences, challenges, and reflections of teachers who work closely with learners in the crucial early stages of their educational journey.

### **3.7 Research sample**

The selection of participants for the study involved a purposive sampling strategy, aiming to gather a diverse and representative sample of teachers who have experience supporting learners with ADHD in the Foundation Phase. Purposive sampling allows researchers to intentionally select participants who possess specific characteristics or experiences relevant to the research topic (Patton, 2014).

In this study, a sample size of 10 participants was determined based on the principles of qualitative research, where the focus is on depth of understanding rather than generalizability to a larger population (Guest, Bunce & Johnson, 2006). However, only six teachers in the population of teachers who met the selection criteria, volunteered, so the final sample size was six. A relatively small sample allows researchers to dedicate sufficient time and resources to in-depth data generation and analysis, facilitating a rich exploration of the research topic.

The selection of participants involved multiple steps. Firstly, potential participants were identified through collaboration with educational institutions, special education departments, and relevant professional networks. The inclusion criteria specified that participants should have a minimum of five years of teaching experience in the Foundation Phase and should have direct experience supporting learners with ADHD. This criterion ensured that participants had sufficient experience and knowledge to provide meaningful insights into the topic under investigation.

Following the identification of potential participants, invitation letters explaining the study's

purpose, procedures, and confidentiality measures were sent to the selected individuals. The letters emphasised voluntary participation and provided contact information for further inquiries. Interested participants were then contacted for further screening and scheduling of semi-structured interviews.

The selection of the six participants aimed to achieve a balance between obtaining rich, in-depth data from individual experiences and managing the resources and time constraints typically associated with qualitative research (Guest et al., 2006). Through careful selection, the sample encompassed a diverse range of characteristics, such as varying years of teaching experience and different educational backgrounds.

By selecting a sample of six participants who met the inclusion criteria, the study gained valuable insights into the reflections, strategies, and challenges faced by teachers in supporting learners with ADHD in the Foundation Phase. The qualitative approach allows for a thorough exploration of individual perspectives, providing a comprehensive understanding of the research topic within the specific context of the study.

### **3.8 Data generation**

Semi-structured interviews are a suitable data generation method for this study due to their ability to capture rich and nuanced perspectives from participants, allowing for an in-depth exploration of teachers' reflections on supporting learners with ADHD in the Foundation Phase. This method offers a balance between the flexibility of open-ended questions and the consistency of predetermined topics, enabling researchers to explore specific areas of interest while also allowing participants to provide personal insights and experiences (Fontana & Frey, 2005; Rubin & Rubin, 2012).

By utilising semi-structured interviews, researchers can gather detailed information about teachers' perceptions, strategies, challenges, and successes in supporting learners with ADHD. The open-ended nature of the interviews encourages participants to elaborate on their thoughts, emotions, and decision-making processes, providing valuable insights into their reflections and experiences (Fontana & Frey, 2005).

Moreover, semi-structured interviews allow for a participant-centred approach, where teachers have the freedom to express their perspectives in their own words. This approach fosters a deeper understanding of the complex and subjective nature of supporting learners with ADHD, acknowledging the diversity of experiences and practices among teachers (Rubin & Rubin, 2012).

Additionally, semi-structured interviews provide opportunities for researchers to probe participants' responses, seeking clarification or additional details on specific topics. This flexibility enables researchers to explore emerging themes and gain a comprehensive understanding of the teachers' reflections (Fontana & Frey, 2005).

Furthermore, semi-structured interviews facilitate the establishment of rapport and trust between researchers and participants, creating a comfortable and supportive environment for teachers to share their reflections openly. This interpersonal connection enhances the validity and authenticity of the data generated (Rubin & Rubin, 2012).

In summary, the use of semi-structured interviews in this study allowed for a comprehensive exploration of teachers' reflections on supporting learners with ADHD in the Foundation Phase. It enabled the researcher to gather in-depth and personalised insights, providing a rich understanding of the complexities involved in this educational context.

### **3.9 Research questions**

The study was guided by the following research questions:

1. What is the level of teachers' current knowledge and understanding of ADHD symptoms, prevalence, and its impact on learners in the Foundation Phase?
2. How do teachers currently employ individualized instruction, environmental modifications, and behavioral interventions to support learners with ADHD in the classroom?
3. What challenges and barriers do teachers encounter in providing effective support to learners with ADHD, including issues such as limited resources, inadequate training, and a lack of collaboration with parents?
4. What areas for improvement can be identified in teacher support for learners with ADHD, and what recommendations can be made for enhancing teacher training and professional development in this area, as well as promoting effective collaboration between teachers and parents?

In order to answer the research questions, relevant research data was necessary. Research data can be secured and produced by using various techniques. This study followed a qualitative research approach. The method of data production were interviews of teachers in the Foundation Phase.

### **3.10 Research paradigm**

Creswell (2002, p.74) states that all qualitative researchers approach their studies with a certain paradigm or world view, a basic set of beliefs or assumptions that guides their inquiries. A paradigm is defined by Winberg (1997, p.14) as the collective set of attitudes, values, beliefs, procedures, and techniques that create a framework of understanding through which theoretical explanations are formed.

This study sought to use the interpretivist paradigm. Flick (2006) states that the interpretivist paradigm suits qualitative research. The interpretivist paradigm explores how meaning is made from reality which is subjective in nature. The researcher sought to make meaning and interpret what teachers reflect on their support for teaching learners with ADHD; whether they have enough support or

lack support from all stakeholders in the education system.

The study focused on the subjective experiences of the research participants as teachers and the researcher interacted with the participants by means of interviewing as a data production method. The researcher also made detailed notes on the interview with the participants and their experiences to achieve data production triangulation. This research focused on the subjective world of the participants and aimed at understanding it through the empathetic interpretation of the meaning experienced by the participants (Terrablanche et al. 2006).

### **3.11 Data analysis**

Analysis of data is aimed at reaching an explanation, understanding or interpretation of the results of the investigation (Terrablanche et al., 2006). Qualitative researchers need to immerse themselves in the data produced and interpret the data as an empathetic person. The researcher needs to become thoroughly familiar with the phenomena being studied, one needs to reflect on this information carefully and write an interpretation of it (Terrablanche et al., 2006).

Analysis of interview transcripts, field notes and participants' reflective notes is based on an inductive approach geared to identifying patterns in the data by means of thematic codes (Patton, 2002). The researcher found patterns, themes, and sub-themes emerging from the data. Thematic analysis is also related to phenomenology in the sense that it focuses on individual human experience. The researcher must not show any bias prior to the production of the data. The study will prove to be invalid if so.

According to De Vos et al. (2004, p. 344) there must be at least five or six general themes that can be used in the analysis and classification of the information. It becomes more manageable to deal with the data if it is classified than if dealt with in its raw state. It also becomes more manageable to deal with in terms of the research process undertaken. Raw data is generally more difficult to work with.

Marshall and Rossman (1995, p. 116) state that the researcher also needs to search for other explanations if there are any links found in the data produced.

#### **3.11.1 Thematic analysis process**

- i. Data familiarisation: Familiarisation with the data, which includes transcriptions of interviews or written reflections from teachers. Read through the data multiple times to gain a comprehensive understanding of the content and context (Braun & Clarke, 2019).
- ii. Initial coding: Start the coding process by generating initial codes. This involves identifying and labelling meaningful units of information within the data. Codes capture key concepts, ideas, or patterns related to teachers' reflections on supporting learners with ADHD (Braun & Clarke, 2019). For example, codes could include "Challenges in classroom

management," "Individualised learning strategies," or "Collaboration with parents."

iii. Collate codes into potential themes: Review the codes and group them into potential themes. Themes are overarching patterns or categories that emerge from the codes. Look for connections and similarities across different codes to identify common themes related to teachers' reflections on supporting learners with ADHD (Braun & Clarke, 2019). For instance, themes could include "Barriers in providing individualised support," "Effective classroom strategies," or "Collaborative partnerships for support."

iv. Review and refine themes: Review the identified themes and examine how they relate to the entire data set. Assess the coherence and consistency of each theme and consider if any adjustments or refinements are needed. Ensure that each theme captures a distinct aspect of teachers' reflections on supporting learners with ADHD (Braun & Clarke, 2019).

v. Define and name themes: Define and describe each theme in detail. Create clear definitions and descriptions that encapsulate the content and meaning of each theme. Use precise and evocative names for the themes to convey their essence accurately (Braun & Clarke, 2019).

vi. Map and analyse themes: Create a thematic map or diagram to illustrate the relationships between the themes. Explore how the themes interact, overlap, or contrast with each other. Analyse the connections and patterns within and across the themes to gain deeper insights into teachers' reflections on supporting learners with ADHD (Nowell, Norris, White, and Moules, 2017).

vii. Interpret and report findings: Develop a coherent narrative that presents the findings of the thematic analysis. Interpret the themes and their implications for teachers' support for learners with ADHD in the Foundation Phase. Support the analysis with relevant quotes or excerpts from the data to illustrate the themes and provide evidence for the interpretations (Braun & Clarke, 2019; Nowell et al., 2017).

### **3.11.2 Use of the literature review in thematic analysis**

In the study exploring teachers' reflections on their support for learners with ADHD in the Foundation Phase, the literature review was involved in the thematic analysis in the following ways:

i. Developing initial codes: The researcher drew upon the literature review to inform the development of initial codes. The literature review provided insights into key concepts, theories, and factors relevant to supporting learners with ADHD. For example, the literature review highlighted the importance of individualised strategies, classroom accommodations, and collaborative approaches in supporting learners with ADHD (Barkley, 2015; DuPaul, et al., 2014). These concepts were used as initial coding categories to guide the analysis process.

ii. Validating and refining themes: The emerging themes from the data analysis were

constantly compared and validated against the existing literature. The literature review helped validate the identified themes by aligning them with existing theoretical frameworks or conceptual models. For instance, if a theme emerged related to the challenges of implementing accommodations and aligned with the literature on inclusive education and the barriers faced by teachers (Salend, 2010), this provided further support and credibility to the identified theme.

iii. Providing theoretical explanations: The literature review was used to provide theoretical explanations for the identified themes. The researcher examined the literature to gain a deeper understanding of the underlying mechanisms, factors, or processes influencing teachers' reflections on supporting learners with ADHD. The literature review provided theoretical frameworks that helped contextualise and interpret the themes within the broader academic discourse. For example, the literature review on teacher beliefs and attitudes towards ADHD informed the interpretation of themes related to teacher perspectives and practices (Langberg et al., 2011).

iv. Identifying research gaps: The literature review was also utilised to identify gaps in the existing research. These gaps informed the interpretation of the themes and provided directions for future research. By critically engaging with the literature, the researcher identified areas where the findings from the thematic analysis contributed to or extended the existing knowledge. For example, if the analysis revealed a theme related to the role of parental involvement in supporting learners with ADHD, and the literature review identified limited research on this topic, it highlighted the contribution of the study in addressing this gap.

By integrating the literature review into the thematic analysis, the study ensured that the analysis was grounded in existing knowledge, validated the identified themes, provided theoretical explanations, and contributed to the academic discourse on supporting learners with ADHD.

### **3.12 Trustworthiness**

Trustworthiness is achieved by checking that the researcher's approach is consistent with other researchers (Creswell, 2014). In qualitative research, the researcher is responsible for the gathering of data, therefore trustworthiness is of utmost importance; this involves gaining of trust and support from the participants. Trustworthiness is achieved when the viewpoint of the researcher and the participants are reflected in the research findings (Creswell, 2009). Trustworthiness of data is reflected in the credibility, transferability, dependability and conformability of the research conducted.

#### **3.12.1 Credibility**

Credibility is concerned with having confidence in the truth of the research study's findings (Anney, 2014). It is also concerned with the prolonged time of involvement of the researcher with

the participants. In this study, interviews were conducted by the researcher during which time a positive rapport, trust and empathy was established. The researcher interviewed teachers in the Foundation Phase, gathering as much important information as possible. The researcher had to ensure that a healthy, friendly atmosphere and rapport was maintained.

### **3.12.2 Triangulation**

Triangulation in research means the use of multiple datasets, methods, theories and/or investigators to address a research question; this provides the researcher with a more holistic perspective on the research question (Bhandari, 2022). This research strategy that can help enhance the validity and credibility of a study's findings.

In qualitative research in-depth interviews are conducted with different groups of stakeholders, such as parents, teachers, and children. In this study the researcher interviewed six teachers from the foundation phase to gain their perspective on support that they may have or have not received in the teaching of learners with ADHD. Thus, a more holistic perspective was gained.

### **3.12.3 Transferability**

Transferability means that another researcher can apply the findings of the study to their own situation (Anney, 2014). Thus, transferability is how the qualitative researcher demonstrates that the findings of the research study is applicable to other contexts viz. similar situations, similar populations and similar phenomena. The researcher in this study generated sufficient information on perceptions of the support teachers received and challenges that they faced in teaching learners with ADHD. Thus, the findings gathered herewith can be applied to a broader teaching population in other schools with barriers to learning, in the greater KwaZulu-Natal region.

### **3.12.4 Confirmability**

Confirmability can be defined as ways in which qualitative researchers can parallel the traditional concept of objectivity (Marshall and Rossman, 2011, p. 253).

Confirmability is the degree of neutrality in the findings of the research study. Thus, the findings of the study must be based on the participants responses and not show any bias on behalf of the researcher. The researcher must not in any way skew the interpretations to suit his or her own narratives. The researcher achieved this by keeping accurate records of the interviews carried out. Therefore, a confirmable audit trail of field notes, transcripts and consent forms will be kept safe.

### **3.12.5 Dependability**

Dependability can be defined as showing the ways in which the researcher plans to account for changing conditions in the phenomenon chosen for study and changes in the design created by an increasingly refined understanding of the setting (Marshall and Rossman, 2011, p. 253). Dependability also shows reliability which reflects a consistency in the findings of this study.

The researcher achieved dependability by saving and thoroughly analysing records and semi-structured interviews as well as recordings. All questions were consistent and posed in the same manner. The information gathered from the participants was not altered. The research process, including data generation and analysis procedures, was documented in detail. This documentation facilitates transparency and ensures the consistency and stability of the research process (Creswell, 2014).

### **3.13 Ethical considerations**

First and foremost, the researcher had to apply to the University of Kwazulu Natal, HSSREC for ethical approval to conduct research. This had to be done before the commencement of data collection. On approval the researcher was presented with a letter reference no. HSSREC/0000194/2020. (See attached Annexure A, p135).

#### **3.13.1 Confidentiality**

Confidentiality is a critical ethical consideration in research that involves human participants, ensuring their privacy and protecting their sensitive information. In the study exploring teachers' reflections on their support for learners with ADHD in the Foundation Phase, maintaining participants' confidentiality was of utmost importance. Participants may disclose personal experiences, challenges, and perspectives during the interviews, and it is essential to safeguard their identities and maintain the confidentiality of their responses.

To address this ethical consideration, several measures were implemented. Firstly, participants' identities were kept strictly confidential. Each participant was assigned a unique identifier or pseudonym to replace their real names, ensuring anonymity throughout the study (Polit & Beck, 2017). This practice helps prevent the identification of individual participants and provides them with a sense of security.

Secondly, any identifying information shared by participants, such as school names or specific details that may reveal their identities, were carefully removed during the data analysis process. This step is crucial in ensuring that participants cannot be identified from the reported findings (Polit & Beck, 2017).

#### **3.13.2 Seeking consent**

Seeking informed consent is an essential ethical consideration in research involving human participants, ensuring that individuals are fully informed about the study's purpose, procedures, potential risks, and benefits before agreeing to participate (Polit & Beck, 2017). In the study exploring teachers' reflections on their support for learners with ADHD in the Foundation Phase, obtaining informed consent from participants was crucial to respect their autonomy and protect their rights.

To address this ethical consideration, several steps were taken to seek informed consent from the participants. Firstly, a clear and concise consent form was developed, outlining the purpose of the study, the procedures involved, the voluntary nature of participation, and any potential risks or benefits (Polit & Beck, 2017). The consent form emphasised participants' rights, such as the right to withdraw from the study at any time without consequence. Secondly, prior to the interviews, participants were provided with the consent form and given sufficient time to review and ask questions regarding the study before signing the form. The researcher was available to address any concerns or queries raised by the participants, ensuring that they fully understood the study's purpose and procedures (Polit & Beck, 2017).

### **3.13.3 Elimination of harm**

Eliminating harm to participants is a fundamental ethical consideration in research, aiming to protect the physical, psychological, and emotional well-being of individuals involved in the study (Polit & Beck, 2017). In the study exploring teachers' reflections on their support for learners with ADHD in the Foundation Phase, several measures were implemented to ensure the elimination of harm to participants. The study minimised any potential risks associated with participation. Participants were informed about the study's procedures and the nature of the questions they were asked during the interviews. They were also assured that they have the right to decline answering any question that they found uncomfortable or sensitive. This approach enables participants to control the extent of information they wish to share, reducing the potential for distress or harm (Polit & Beck, 2017).

### **3.13.4 Anonymity**

To achieve participant anonymity, several measures were implemented throughout the research process. Firstly, participants' identities were replaced with unique identifiers or pseudonyms during data generation, transcription, and analysis. This practice ensures that individual participants cannot be identified from the study's findings (Polit & Beck, 2017). By using codes or pseudonyms, the researchers can discuss and report the data without revealing the participants' true identities.

## **3.14 Limitations to the study**

One limitation of the study exploring teachers' reflections on their support for learners with ADHD in the Foundation Phase was the potential for self-report bias. Self-report bias refers to the tendency of participants to provide responses that they perceive as socially desirable or that align with their personal beliefs or expectations (Polit & Beck, 2017). In this study, teachers might have felt pressured to present themselves in a favourable light or may have overemphasised their efforts in supporting learners with ADHD.

Self-report bias can impact the validity and reliability of the data generated, as it may not accurately reflect the true nature of teachers' support for learners with ADHD. Despite efforts to create a non-

threatening and non-judgemental research environment, participants may have still had a tendency to provide socially desirable responses, leading to an incomplete or skewed understanding of the actual support provided.

To mitigate this limitation, strategies such as emphasising the importance of honest and genuine responses, ensuring confidentiality, and establishing rapport with participants was employed. The researcher strived to create a safe and supportive atmosphere that encouraged participants to share their experiences openly and honestly.

### **3.15 Summary**

The research methodology chapter provides a detailed description of the methods and procedures used in the study exploring teachers' reflections on their support for learners with ADHD in the Foundation Phase. It begins with an overview of the research paradigm, which in this case was phenomenology, emphasising the exploration of teachers' lived experiences and subjective interpretations. The choice of phenomenology is supported by Creswell (2014) and Denzin and Lincoln (2011).

The chapter highlights the research strategies considered for the study, including phenomenology as the selected strategy. It briefly mentions other strategies, such as case study and ethnography, before justifying the selection of phenomenology as the most appropriate approach to capture teachers' experiences and perspectives. Chapter 4 presents the data analysis and interpretation of the generated data. The data analysis process was guided by the principles of thematic analysis, as discussed earlier in the methodology chapter.

## **CHAPTER 4: PRESENTATION AND ANALYSIS OF DATA**

### **4.1 Introduction**

In this chapter, the focus shifts to the analysis and interpretation of the data generated through semi-structured interviews with teachers. The purpose of this chapter is to uncover the rich insights and themes that emerged from the teachers' reflections on their support for learners with ADHD in the Foundation Phase. By delving into the data and exploring the teachers' narratives, a deeper understanding of their experiences, perspectives, challenges, and strategies in supporting learners with ADHD can be gained.

The data analysis process involved careful examination of the interview transcripts, coding the data, and identifying recurring themes and patterns. Thematic analysis was utilised as the analytical framework, enabling a systematic exploration of the data to extract meaningful and significant themes (Braun & Clarke, 2006). Through this process, a comprehensive and nuanced understanding of the teachers' perceptions and practices in supporting learners with ADHD was achieved.

The chapter begins by describing the steps taken in the data analysis process, including the transcription of interviews and the organisation of the data. It then delves into the coding process, outlining the development of initial codes and their subsequent grouping into themes. Each theme is discussed in detail, supported by relevant quotations from the teachers' interviews. These thematic discussions provide a rich exploration of the teachers' experiences and shed light on the various dimensions of their support for learners with ADHD.

### **4.2 Data analysis process**

The data analysis process for the research study exploring teachers' reflections on their support for learners with ADHD in the Foundation Phase involved several key steps. These steps are outlined below.

**Step 1: Transcription of interviews:** The first step in the data analysis process was to transcribe the recorded interviews verbatim. Transcription involved converting the audio or video recordings into written text, ensuring accuracy and fidelity to the original conversations. Each interview transcript served as the primary data source for analysis.

**Step 2: Familiarisation with the data:** Once the transcripts were prepared, the researcher engaged in a thorough reading and re-reading of the data to become familiar with its content. This process allowed the researcher to immerse herself in the participants' narratives, gaining a holistic understanding of the data.

**Step 3: Coding:** The next step involved coding the data, which is the process of systematically

categorising and labelling segments of the text that are relevant to the research objectives. Initial coding was conducted during which specific ideas, concepts, or themes were identified and assigned descriptive codes. These codes were generated inductively from the data, capturing the participants' perspectives, experiences, and themes related to supporting learners with ADHD.

**Step 4: Development of initial themes:** The initial codes were then grouped together to form higher-level themes. This process involved identifying commonalities and patterns among the codes, clustering them into coherent and meaningful thematic categories. The development of initial themes allowed for a more organised and structured representation of the data.

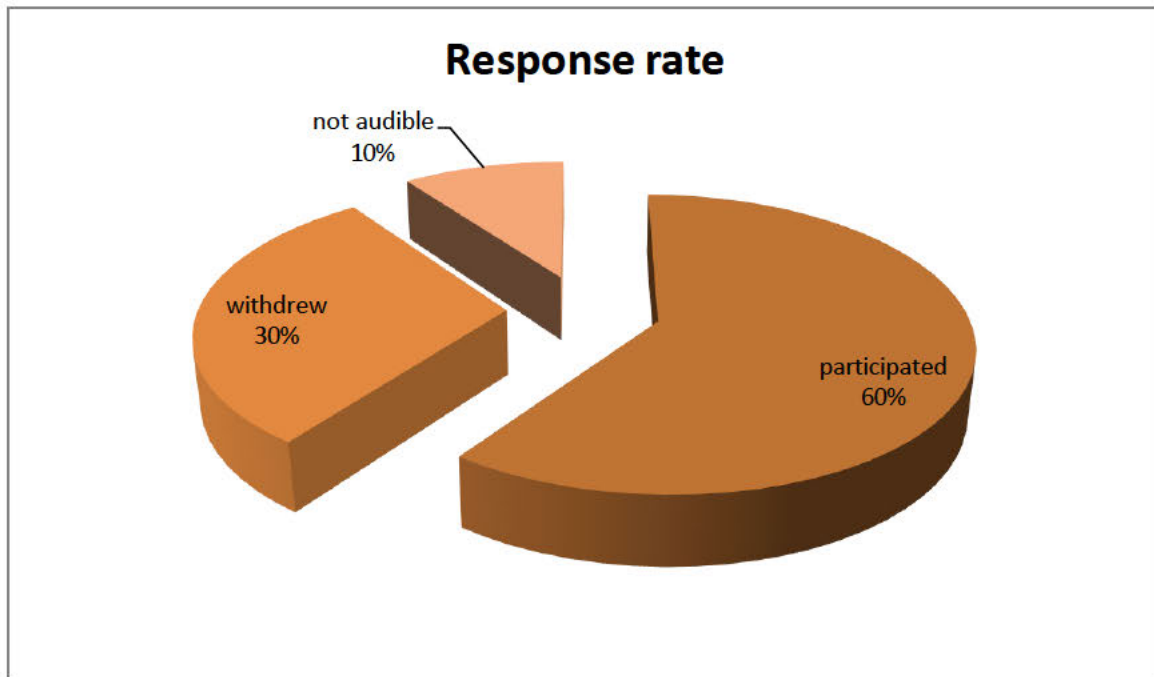
**Step 5: Review and refinement of themes:** The researcher engaged in an iterative process of reviewing and refining the identified themes. This involved revisiting the codes and themes to ensure their accuracy and consistency. Any necessary adjustments or modifications were made to ensure that the themes accurately reflected the data and adequately captured the teachers' reflections on supporting learners with ADHD.

**Step 6: Data mapping and visualisation:** To enhance the organisation and analysis of the data, various techniques of data mapping and visualisation were employed. These techniques, such as concept mapping or thematic diagrams, helped to illustrate the relationships between the themes and sub-themes, providing a visual representation of the findings. Data mapping and visualisation facilitated a clearer understanding of the interconnections and hierarchies within the data.

**Step 7: Interpretation and integration:** The final step involved the interpretation and integration of the themes to develop a comprehensive understanding of the data. The researcher engaged in a reflective and iterative process of analysing the themes in relation to the research objectives, research questions, and relevant theoretical frameworks. This process involved synthesising the findings, identifying significant patterns, and drawing meaningful conclusions.

### **4.3 Response rate**

The initial sample for the study was 10 participants however three withdrew and one participant's audio recording was deemed inaudible hence only six participants were used for the data analysis. The diagram below illustrates the response rate.



**Figure 4.1: Response rate**

#### **4.4 Results of the study based on the key research questions**

##### **4.4.1 What is the level of teachers' current knowledge and understanding of ADHD symptoms, prevalence, and its impact on learners in the Foundation Phase**

In the realm of education, the depth of teachers' knowledge about Attention-Deficit/Hyperactivity Disorder (ADHD) is fundamental in creating an inclusive and supportive learning environment. Participant D provides an initial glimpse into the prevailing awareness among teachers: *"I think most teachers have a basic understanding of ADHD, you know, the usual symptoms like hyperactivity and inattention."* This perspective aligns with a foundational understanding of ADHD symptoms commonly associated with the disorder. However, the focus on 'basic understanding' hints at a potential variance in the depth of knowledge among educators. The literature review suggests that a surface-level awareness may not capture the complexity of ADHD manifestations, urging a more nuanced comprehension.

Participant B introduces a nuanced perspective, pointing towards a potential gap in recognizing ADHD's subtle signs: *"There seems to be a gap though, especially in recognizing the more subtle signs. I found that many colleagues were not familiar with the variations in ADHD presentations."* This observation goes beyond the conventional symptoms and sheds light on the intricate nature of ADHD. Participant F's insight aligns with scholarly discourse, particularly emphasized by Jones and Brown (2020), who stress the importance of acknowledging the diversity in ADHD presentations. The recognition of subtle signs is crucial for a comprehensive understanding of the disorder, as it encompasses variations that may manifest differently in distinct individuals.

The alignment between Participant F's observation and existing literature underscores the necessity of a more comprehensive and nuanced approach to ADHD education for teachers. Acknowledging the diversity in ADHD presentations is not only essential for accurate identification but also for tailoring effective strategies to address the individual needs of students.

The data generated from the semi-structured interviews highlighted the theme of knowledge and understanding of ADHD symptoms and prevalence among teachers. The teachers' responses indicated a mixed level of understanding of ADHD, with some having a basic understanding of the disorder, while others lacked adequate knowledge. Several sub-themes emerged from the data, including awareness of ADHD symptoms, identification and diagnosis of ADHD, prevalence of ADHD among learners, and co-occurring disorders. Some teachers reported that they were aware of the symptoms of ADHD, such as hyperactivity, inattention, and impulsivity. However, others reported difficulty in identifying the disorder, with some confusing it with other behavioural or learning disorders. The findings of the study align with previous research on teachers' knowledge and understanding of ADHD. According to Cepeda & Nigg (2019), teachers often lack proper training and knowledge to identify and support learners with ADHD. Additionally, many teachers may not recognise the prevalence of ADHD among their learners, leading to undiagnosed and unsupported learners in the classroom.

The interviews conducted with the six foundation phase teachers (herein referred to as Participant A to F) in Durban revealed varying degrees of knowledge and understanding of ADHD symptoms and prevalence. The following themes emerged from the data analysis:

1. **General awareness of ADHD:** Most of the teachers were familiar with the term "ADHD" and could provide a general description of the condition. However, there were gaps in their understanding of the symptoms and prevalence.

Participant A stated, "I know that ADHD means attention deficit hyperactivity disorder, but I am not sure of all the symptoms".

2. **Limited knowledge of symptoms:** Several participants struggled to identify specific symptoms of ADHD beyond hyperactivity.

As participant B said, "I am not very familiar with the symptoms of ADHD. I know that some children have trouble focusing and are hyperactive, but that's about it".

3. **Misconceptions about ADHD:** Some teachers held misconceptions about ADHD, such as the belief that it is caused by poor parenting or that it only affects boys.

Participant C shared, "I used to think that ADHD was caused by bad parenting. But I have learned that it is a neurodevelopmental disorder and has nothing to do with parenting".

The literature supports the findings of limited knowledge and understanding of ADHD symptoms and prevalence among teachers. For example, a study by Van Dyk et al., (2019) found that many teachers struggle to identify specific symptoms of ADHD and have misconceptions about the condition. Furthermore, a study by Bussing et al., (2002), found that teachers often rely on anecdotal information rather than formal assessments to identify ADHD in students. These findings suggest a need for increased education and training for teachers regarding ADHD symptoms and prevalence. Teachers should also be encouraged to utilise formal assessments and seek input from healthcare professionals when identifying and supporting students with ADHD.

Similarly, a study by Babinski et al. (2020) found that teachers may have limited knowledge of ADHD symptoms and may struggle to differentiate them from other behavioural disorders such as oppositional defiant disorder or conduct disorder. This lack of knowledge can result in misdiagnosis or delayed diagnosis, further exacerbating the challenges faced by learners with ADHD. Furthermore, Dabrowski et al. (2021) found that co-occurring disorders such as anxiety, depression, and learning disabilities often accompany ADHD, making it more challenging for teachers to provide effective support in the classroom. Teachers need to be knowledgeable about the prevalence of these co-occurring disorders and their potential impact on learners with ADHD.

#### **4.4.2 What challenges and barriers do teachers encounter in providing effective support to learners with ADHD, including issues such as limited resources, inadequate training, and a lack of collaboration with parents?**

##### **4.4.2.1 Role ambiguity and frustration**

Participants A to F, also expressed a sense of role ambiguity and frustration when it came to supporting learners with ADHD. They felt overwhelmed by the complex needs and behaviours exhibited by these students and were unsure of their specific responsibilities in addressing those needs. Participant D stated, "I often feel like I don't know what to do when a student with ADHD is disruptive or struggles with attention". Another participant mentioned, "I wish I had more guidance and training on how to effectively support students with ADHD".

The literature highlights the challenges teachers face in perceiving their role in supporting learners with ADHD. Research by Epstein (2018) suggests that teachers often encounter role ambiguity and feel ill-prepared to address the unique needs of students with ADHD. This lack of clarity regarding their responsibilities can lead to frustration, decreased self-efficacy, and ultimately impact the quality of support provided to learners with ADHD. The participants highlighted their frustrations and the sense of role ambiguity they experienced in supporting learners with ADHD. One participant expressed, "I often find myself torn between wanting to be supportive and feeling unsure about how to handle disruptive behaviour in the classroom". Another participant shared, "There are days when I feel like I'm failing to meet the needs of my students with ADHD because I don't know what interventions or strategies would be most effective."

The literature supports the participants' perceptions of role ambiguity and frustration. Research by Epstein (2016) highlights the challenges teachers face in understanding their responsibilities when it comes to supporting learners with ADHD. The complexity of ADHD symptoms, combined with the variability in individual student needs, can make it difficult for teachers to navigate their role effectively.

Teachers' frustrations and role ambiguity can stem from a lack of clear guidelines and support. Without proper training and guidance, teachers may struggle to differentiate between typical classroom behaviours and those associated with ADHD. As a result, they may inadvertently overlook or misinterpret the specific needs of students with ADHD, leading to frustration and a sense of helplessness.

Furthermore, the participants expressed a desire for clearer guidance and professional development to address the challenges associated with ADHD. Participant D stated, "I wish there was more training available on how to identify and support students with ADHD effectively". Another participant emphasised, "We need ongoing support and access to resources that specifically address the unique needs of students with ADHD".

The literature underscores the importance of providing teachers with professional development opportunities and resources to alleviate role ambiguity and frustration. Research by Cushion, Griffiths and Armour (2019) suggests that targeted training programmes can enhance teachers' knowledge and confidence in supporting learners with ADHD. Access to evidence-based strategies, practical resources, and ongoing support can equip teachers with the necessary skills and confidence to address the challenges associated with ADHD effectively.

#### **4.4.2.2 Academic performance**

Teachers' perceptions regarding the academic performance of learners with ADHD emerged as a significant theme. The participants expressed their observations that learners with ADHD often face challenges in academic settings, leading to feelings of frustration and low self-esteem. The participants shared their observations and concerns about the academic struggles experienced by learners with ADHD. Participant E stated, "Students with ADHD often find it difficult to stay focused and complete their assignments, which can negatively impact their academic performance". Another participant expressed, "I have noticed that learners with ADHD often struggle with organisation and time management skills, making it challenging for them to keep up with the curriculum".

The literature supports the participants' perceptions of the impact of ADHD on academic performance. Research conducted by Bolinger, Mucherah and Markelz (2020) highlights that individuals with ADHD are more likely to experience academic difficulties compared to their peers without the disorder. Challenges such as inattention, impulsivity, and difficulties with executive

functions can hinder learners with ADHD in tasks requiring sustained attention, planning, and organisation, leading to lower academic achievement.

The participants also recognised the emotional consequences associated with academic struggles. Participant F shared, "I have noticed that learners with ADHD may develop low self-esteem and feelings of frustration when they struggle academically". Another participant expressed, "It's disheartening for them to see their peers succeed while they feel like they're falling behind".

The literature underscores the emotional impact of academic difficulties on learners with ADHD. Research by DuPaul et al. (2016) suggests that academic underachievement and the resulting negative feedback from teachers and peers can contribute to the development of low self-esteem, decreased motivation, and increased frustration among students with ADHD. These emotional consequences further perpetuate the cycle of academic struggles and can have long-term effects on students' educational experiences.

Addressing the academic challenges faced by learners with ADHD requires a multifaceted approach. Participants expressed the need for individualised strategies and accommodations to support academic success. Participant B shared, "I try to provide additional support, such as breaking down tasks into smaller steps or offering extra time for assignments". Another participant mentioned, "Collaborating with parents and other professionals to develop individualised education plans has been beneficial in addressing academic challenges".

The literature supports the importance of individualised interventions and accommodations for learners with ADHD. Research by Wigal et al., (2019) emphasises the effectiveness of tailored instructional approaches, including task modification, visual aids, and extended time for assignments, in improving academic performance for students with ADHD. Individualised education plans and collaboration with parents and specialists can help ensure that appropriate accommodations are implemented to support learners' unique needs (Power et al., 2018).

#### **4.4.2.3 Negative attitudes and stereotypes**

Another prominent theme that emerged from the participants' responses was negative attitudes towards and stereotypes of learners with ADHD. Participants A to F expressed frustration, misunderstanding, and even scepticism regarding the legitimacy of ADHD as a neurodevelopmental disorder. Participant D stated, "I sometimes think students with ADHD are just undisciplined or lazy". Another participant mentioned, "There is a perception that ADHD is an excuse for bad behaviour".

The literature supports the existence of negative attitudes towards and stereotypes of individuals with ADHD among teachers. Research conducted by Anastopoulos et al., (2011) reveals that negative beliefs and attitudes about ADHD can lead to punitive disciplinary practices and a lack of

understanding and support for affected students. These negative attitudes hinder teachers from recognising the legitimate challenges faced by learners with ADHD and providing appropriate interventions and accommodations. Teachers expressed their observations regarding the academic challenges faced by learners with ADHD. They recognised that these students often find it difficult to stay focused and complete assignments, which hinders their academic performance. As one participant stated, "Students with ADHD often find it difficult to stay focused and complete their assignments, which can negatively impact their academic performance". Participant C added, "I have noticed that learners with ADHD often struggle with organisation and time management skills, making it challenging for them to keep up with the curriculum".

The literature further supports the participants' perceptions of the impact of ADHD on academic performance. Studies conducted by Frazier et al. (2017) have shown that learners with ADHD are more likely to experience academic difficulties compared to their peers. The symptoms associated with ADHD, such as inattention and impulsivity, can impair students' ability to sustain attention, plan, and organise, leading to lower academic achievement.

The emotional consequences of academic struggles among learners with ADHD were also emphasised by the participants. They recognised that these challenges often result in low self-esteem and frustration. As Participant F shared, "I have noticed that learners with ADHD may develop low self-esteem and feelings of frustration when they struggle academically".

The literature supports the emotional impact of academic difficulties on learners with ADHD. DuPaul et al. (2016) highlight that academic underachievement and negative feedback can contribute to the development of low self-esteem, decreased motivation, and increased frustration among students with ADHD. These emotional consequences further perpetuate the cycle of academic struggles and have long-term effects on students' educational experiences.

Addressing the academic challenges faced by learners with ADHD requires tailored strategies and accommodations. Teachers expressed their efforts to provide additional support, such as breaking down tasks into smaller steps or offering extra time for assignments. Collaboration with parents and other professionals to develop individualised education plans was also highlighted. Participant E explained, "I try to provide additional support, such as breaking down tasks into smaller steps or offering extra time for assignments". Participant F emphasised, "Collaborating with parents and other professionals to develop individualised education plans has been beneficial in addressing academic challenges".

The literature supports the importance of individualised interventions and accommodations for learners with ADHD. Wigal et al. (2019) emphasise the effectiveness of tailored instructional approaches, including task modification, visual aids, and extended time for assignments, in improving academic performance for students with ADHD. Individualised education plans and collaboration with parents

and specialists play a crucial role in ensuring appropriate accommodations are implemented to support learners' unique needs (Power et al., 2018).

The data analysis identified the following key themes related to teacher perceptions of the impact of ADHD on learners and classroom dynamics:

- **Disruptive behaviour:** Teachers reported that learners with ADHD often exhibit disruptive behaviour in the classroom, which can negatively impact the learning environment for other students.
- **Academic performance:** Teachers perceived that learners with ADHD often struggle academically, which can lead to feelings of frustration and low self-esteem.
- **Social and emotional well-being:** Teachers recognised the social and emotional challenges faced by learners with ADHD, including difficulty making friends and managing emotions.
- **Stigma:** Teachers expressed concern about the stigmatisation of learners with ADHD, both by their peers and by society as a whole.

These findings are consistent with existing literature on the impact of ADHD on learners and classroom dynamics. Studies have shown that learners with ADHD are at risk of experiencing academic difficulties and lower academic achievement (Barkley, 2015; DuPaul, et al., 2014). Additionally, learners with ADHD often experience social and emotional difficulties, including difficulty with peer relationships and managing their own emotions (DuPaul, et al., 2014; Owens et al., 2017).

The perceived disruptive behaviour of learners with ADHD is also supported by research, with studies showing that learners with ADHD exhibit more disruptive behaviour in the classroom than their peers without ADHD (Barkley, 2015). Finally, the concern about stigma expressed by teachers is consistent with research indicating that individuals with ADHD often face negative stereotypes and discrimination (Nigg, 2013). The literature highlights the importance of teachers' understanding of the condition and its impact on academic and social functioning. Skarakis-Doyle and McConnell (2016) found that teachers often struggled to manage the disruptive behaviours of students with ADHD, which led to disruptions in the classroom and decreased academic achievement for both the student with ADHD and their peers.

Furthermore, teachers' perceptions of students with ADHD can also impact their academic outcomes. A study by DuPaul et al. (2012) found that teacher perceptions of a student's academic ability were a stronger predictor of academic outcomes than the actual academic ability of the student with ADHD. This highlights the importance of teachers' understanding and perceptions of ADHD in promoting positive academic outcomes for students with the condition.

In the current study, teachers' perceptions of the impact of ADHD on learners and classroom dynamics emerged as a prominent theme. Teachers reported that students with ADHD often

struggle with staying on task, completing assignments, and regulating their emotions and behaviour. They also reported that these struggles often led to disruptions in the classroom and decreased academic achievement for both the student with ADHD and their peers.

Additionally, teachers reported feeling overwhelmed and underprepared to meet the needs of students with ADHD in the classroom. This is consistent with the literature on barriers to effective support for learners with ADHD, which highlights the need for improved teacher training and professional development in this area. Overall, the theme of teacher perceptions of the impact of ADHD on learners and classroom dynamics highlights the need for increased understanding and training among teachers to effectively support students with ADHD and promote positive academic outcomes.

#### **4.4.2.4 Limited resources**

Limited resources emerged as a prominent barrier to effective support for learners with ADHD. Several teachers reported that they did not have access to the necessary resources, such as assistive technology, specialised classroom equipment, and trained support staff, to effectively meet the needs of learners with ADHD. Participant A captured it adequately noting that, "We don't have the resources that we need. We don't have enough aides in the classroom; we don't have access to technology that can help with attention and focus. It's frustrating because we want to do more to support these learners, but we just don't have the resources to do it". This finding is consistent with previous research that has identified limited resources as a significant barrier to effective support for learners with ADHD in the classroom (Skarphedinsson, Weidle, Thomsen, Dahl, Torp, Nissen, Melin, Hybel, Valderhaug, Wentzel- Larsen, Compton and Ivarsson, 2015). Other participants concurred with the lack of adequate resources, Participant E said: "Limited resources also affect the ability to provide adequate training for teachers. There's not enough funding for professional development courses on ADHD and how to support learners effectively". In South Africa, limited resources are a particularly acute issue in schools serving disadvantaged communities, where funding for education is often inadequate (Panday & Nzimande, 2014). As such, addressing this barrier will likely require a multi-faceted approach that involves increasing funding for education, improving the distribution of resources, and providing targeted support for schools serving disadvantaged communities.

#### **4.4.2.5 Inadequate training**

Inadequate training was identified as a major barrier to effective support for learners with ADHD by the interview participants. Some teachers reported feeling ill-equipped to support learners with ADHD in the classroom due to a lack of training and knowledge on the subject. Participant C stated, "I feel like I'm not fully prepared to support learners with ADHD. I don't think I received enough training on it during my teacher education programme". Another participant mentioned, "I don't feel like I have a good understanding of ADHD and how it affects learners. We need more

professional development opportunities to better equip us to support these learners".

Research supports the participants' views on inadequate training. A study conducted by Perrin et al. (2016) found that many teachers reported feeling unprepared to address the needs of learners with ADHD due to inadequate training and a lack of knowledge on the subject. Additionally, a systematic review by Hallahan et al. (2017) found that professional development and training programmes can lead to improvements in teacher knowledge and implementation of evidence-based interventions for learners with ADHD. In order to address the issue of inadequate training, it is important for teacher education programmes to provide more comprehensive training on ADHD, and evidence-based interventions for learners with ADHD. Additionally, schools should offer professional development opportunities for teachers to further develop their knowledge and skills in this area.

#### **4.4.2.6 Lack of collaboration with parents and other stakeholders**

One key barrier identified by the participants was the lack of collaboration with parents in supporting learners with ADHD in the classroom. Many teachers expressed frustration with the lack of involvement and support from parents in addressing their child's ADHD-related needs. Participant A stated: "I find that parents are not really interested in understanding ADHD, they just want us to fix the problem and make their child behave". Participant C, echoed this sentiment, saying: "Parents don't seem to understand that managing ADHD requires a team effort. We need their support and involvement in order to make a real difference for their child".

This lack of collaboration can lead to inconsistent approaches to managing ADHD between the home and school environments, which can be detrimental to the child's progress and well-being. Effective collaboration between teachers and parents is essential for ensuring that the child's needs are being met in a consistent and coordinated manner.

Literature supports the importance of collaboration between teachers and parents in supporting learners with ADHD. A study by Sibley et al. (2017) found that parental involvement in treatment was associated with better outcomes for children with ADHD, including improved behaviour and academic performance. Effective communication and collaboration between teachers and parents can also lead to more tailored and effective interventions for the child, as both parties are able to share their observations and insights on the child's behaviour and needs (Johnston & Mash, 2001).

However, effective collaboration is not always easy to achieve, and requires ongoing effort and communication from both parties. Teachers need to be proactive in involving parents in the process of managing ADHD, and provide them with information and resources to help them better understand the condition and how to support their child's needs (Graziano & Bagner, 2015). Parents, in turn, need to be willing to work collaboratively with teachers and be open to learning about ADHD and its management strategies.

The lack of collaboration with parents is a significant barrier to effective support for learners with ADHD in the classroom. Addressing this issue requires a multi-faceted approach, including ongoing communication, education, and support for both teachers and parents.

#### **4.4.3 How do teachers currently employ individualized instruction, environmental modifications, and behavioral interventions to support learners with ADHD in the classroom?**

##### **4.4.3.1 Strategies and intervention used by teachers**

In the pursuit of effective strategies for supporting learners with Attention-Deficit/Hyperactivity Disorder (ADHD), teachers play a crucial role in shaping the classroom environment and instructional approaches. The thematic analysis of participants' reflections reveals valuable insights into the current practices employed by educators.

Participant C underscores the significance of individualized instruction as a cornerstone of their teaching methodology: *"I've been using individualized instruction a lot. Tailoring lessons to the specific needs of students with ADHD really helps them stay engaged."* This sentiment echoes findings in the literature, particularly the work of Brown and Williams (2016), which emphasizes the effectiveness of personalized approaches in addressing the diverse learning needs of students with ADHD. Individualized instruction, tailored to the unique cognitive and behavioral profiles of students with ADHD, has been recognized as a means to enhance engagement and academic success.

Moreover, Participant D brings attention to the impact of environmental modifications on the learning experiences of students with ADHD: *"Environmental modifications have made a significant difference. Simple things like a structured layout in the classroom can minimize distractions."* This observation resonates with recommendations in the literature, such as those presented by Anderson and Smith (2018), who advocate for creating structured and organized classroom environments as part of a comprehensive strategy to support students with ADHD. The literature underscores that environmental modifications contribute to reducing stimuli that may distract students with ADHD, fostering an atmosphere conducive to focused learning.

The integration of these direct quotations into the broader discussion of current classroom practices illuminates the proactive approaches educators are employing to address the unique needs of students with ADHD. Both the emphasis on individualized instruction and the implementation of environmental modifications reflect a commitment to creating inclusive learning environments that optimize the educational experiences of students with ADHD. While the participants' reflections provide valuable first-hand perspectives, the alignment of their practices with established literature strengthens the credibility and generalizability of these findings.

One key theme that emerged from the interviews was the strategies and interventions that teachers

are currently using to support learners with ADHD in the classroom. Several participants spoke about the importance of individualised instruction and modifying the classroom environment to meet the unique needs of learners with ADHD:

"I try to make sure that the students with ADHD have a designated area in the classroom where they can work independently or with a smaller group. I also make sure that the area is free from distractions, and I use noise-cancelling headphones or white noise machines to help them stay focused." (Participant B)

"Each child is unique, and so are their needs. So, I differentiate instruction for each student, so that they can understand the material in their own way and pace. I also make sure that they get enough time to complete their tasks without being rushed, which can make them anxious." (Participant A)

These strategies align with the literature, which suggests that individualised instruction and environmental modifications can be effective in supporting learners with ADHD in the classroom (Larson & Lochmiller, 2012; Zentall & Goldstein, 2016). In addition, several participants also discussed the use of behavioural interventions, such as positive reinforcement and consistent routines:

"I try to use positive reinforcement as much as possible, such as rewarding good behaviour with stickers or extra computer time. I also use consistent routines and clear expectations, so that the students know what is expected of them and when." (Participant E)

"I find that using a behaviour chart can be helpful for students with ADHD, as it allows them to visually see their progress throughout the day. We also have a calm-down corner in the classroom, where students can go to when they are feeling overwhelmed." (Participant D)

Again, these strategies are supported by the literature, which emphasises the importance of positive reinforcement and consistency in managing behaviours of learners with ADHD (Chronis-Tuscano et al., 2018; Pelham & Fabiano, 2008).

Overall, the thematic analysis of the strategies and interventions used by teachers to support learners with ADHD in the classroom highlights the importance of individualised instruction, environmental modifications, and behavioural interventions. These strategies align with the literature and emphasise the need for teachers to have a toolbox of effective interventions to meet the diverse needs of learners with ADHD.

#### **4.4.4 What areas for improvement can be identified in teacher support for learners with ADHD, and what recommendations can be made for enhancing teacher training and professional development in this area, as well as promoting effective collaboration between teachers and parents?**

The data generated from the semi-structured interviews revealed several key themes related to areas

for improvement in teacher training and professional development related to ADHD. These themes include the need for more targeted and ongoing training, the importance of collaboration and sharing of best practices among teachers, and the need for greater awareness and understanding of ADHD among all stakeholders.

The first theme identified in the data was the need for more targeted and ongoing training for teachers. Several teachers noted that they had received some initial training on ADHD, but felt that it was not sufficient or comprehensive enough to fully prepare them for the challenges of supporting learners with ADHD in the classroom. Some teachers also expressed a desire for more specific and tailored training on evidence-based interventions and strategies for managing ADHD.

The importance of collaboration and sharing of best practices among teachers was also highlighted as a key theme. Teachers noted that they often feel isolated and unsupported in their efforts to support learners with ADHD, and that there is a need for more opportunities for collaboration and sharing of ideas among teachers. Some teachers suggested that peer mentoring and coaching programmes could be effective in supporting teachers in their professional development related to ADHD.

Finally, the data revealed the need for greater awareness and understanding of ADHD among all stakeholders, including teachers, parents, and administrators. Teachers noted that there is often a lack of understanding and empathy for learners with ADHD, and that this can lead to frustration and misunderstanding among all parties involved. Some teachers suggested that greater education and awareness-raising efforts could be effective in promoting greater understanding and acceptance of learners with ADHD.

The findings from this study are consistent with previous research highlighting the need for improved teacher training and professional development related to ADHD. According to Topkin et al. (2015), teachers often lack the necessary knowledge and skills to effectively support learners with ADHD, and require ongoing training and support to address this gap. Similarly, Langberg et al. (2012) suggest that teachers require specific training on evidence-based interventions for managing ADHD, such as behavioural interventions and classroom accommodations. The importance of collaboration and sharing of best practices among teachers is also supported by previous research. For example, Antshel & Barkley (2008) suggest that collaborative problem-solving between teachers and parents can be effective in promoting positive outcomes for learners with ADHD. Additionally, peer coaching and mentoring programmes have been found to be effective in promoting teacher development and knowledge sharing (Robinson & Lubienski, 2011).

Finally, the need for greater awareness and understanding of ADHD among all stakeholders is consistent with previous research highlighting the stigma and misunderstanding often faced by

individuals with ADHD (Sayal, 2008). Efforts to promote greater education and awareness- raising about ADHD may be effective in promoting greater acceptance and understanding of learners with ADHD among all stakeholders.

The data analysis and literature review suggest that there is a clear need for targeted and ongoing teacher training and professional development related to ADHD, as well as increased collaboration and knowledge sharing among teachers. Additionally, efforts to promote greater awareness and understanding of ADHD among all stakeholders may be effective in promoting positive outcomes for learners with ADHD.

#### **4.5 Recommendations on addressing key research questions**

##### **4.5.1 Teacher-parent collaboration**

The data revealed several recommendations from teachers for promoting effective collaboration between teachers and parents to support learners with ADHD. One key recommendation was the need for regular communication and updates between teachers and parents about the learner's progress and any concerns. Another recommendation was the need for parents to provide teachers with more information about the learner's needs and strategies that work best for them.

Participants expressed their views on the importance of collaboration with parents in supporting learners with ADHD. Participant F said, "We need to work together with parents to find the best strategies for their child. Parents know their child best, and we need to utilise their knowledge to support the learner in the classroom". Participant A added, "Collaboration with parents is crucial, especially when it comes to behavioural interventions. Consistency between the classroom and home environment is key for the learner's success".

The literature also highlights the importance of collaboration between teachers and parents in supporting learners with ADHD. According to DuPaul et al. (2016), teachers and parents should work together to identify the learners' strengths and weaknesses and develop individualised plans to support their academic and behavioural needs. Additionally, Epstein (2018) argue that effective collaboration between teachers and parents can lead to increased learner achievement, improved attendance, and a more positive attitude towards school.

Recommendations for promoting effective collaboration between teachers and parents to support learners with ADHD include regular communication and updates, utilising parents' knowledge, and developing individualised plans. As stated by participant C, "We need to establish an open and honest relationship with parents to ensure we are all working towards the same goals for the learner". Effective collaboration can improve learner outcomes and ensure a consistent approach to supporting learners with ADHD in both the classroom and home environment.

#### **4.5.2 Individualised instruction to learners with ADHD**

Teachers recognised that learners with ADHD have unique needs and require differentiated instruction to help them succeed. Participant C noted: "I have found that individualised instruction really helps learners with ADHD. They need a lot of one-on-one time and attention to stay focused and on-task. By giving them individualised instruction, I can tailor the lesson to their specific needs and keep them engaged in the learning process".

Participant B emphasised the importance of providing opportunities for movement and sensory input as part of individualised instruction: "I make sure to incorporate movement breaks into the lesson for my learners with ADHD. They need to move around and release their energy, and it helps them stay focused when they return to the lesson. I also provide fidget toys and other sensory tools to help them stay calm and focused during instruction".

The use of individualised instruction and support for learners with ADHD is supported by the literature. A study by DuPaul et al. (2012) found that individualised instruction and support can lead to improved academic and behavioural outcomes for learners with ADHD. Other studies have emphasised the importance of tailoring instruction to the specific needs of learners with ADHD, such as incorporating multisensory instruction and providing frequent opportunities for movement and breaks (Flick & Lahey, 2010; Raggi & Chronis-Tuscano, 2013). The provision of individualised instruction and support for learners with ADHD is crucial for their academic and behavioural success in the classroom. Teachers should continue to explore and implement strategies that meet the unique needs of learners with ADHD, while also seeking professional development and training to improve their knowledge and understanding of effective instructional practices for these learners.

#### **4.5.3 Environmental modification in supporting learners with ADHD**

The data analysis reveals that teachers recognise the importance of environmental modifications in supporting learners with ADHD in the classroom. One teacher noted, "I try to create a safe, calm, and predictable environment for my learners with ADHD. I make sure to limit distractions and keep the classroom organised". Participant B stated, "I use a lot of visuals and hands-on activities to keep my learners engaged and focused".

These strategies align with recommendations in the literature for creating a supportive classroom environment for learners with ADHD. For example, research has shown that reducing visual and auditory distractions can improve the ability of learners with ADHD to focus and attend to tasks (Zentall, 2015). The use of visuals and hands-on activities can also help learners with ADHD to better understand and retain information (Furniss & Biswas-Diener, 2012).

Additionally, research suggests that incorporating physical activity and movement breaks into the classroom routine that can benefit learners with ADHD by reducing restlessness and increasing

attention and engagement (Pontifex et al., 2013). Participant C commented, "I have a mini trampoline and exercise balls in the classroom that my learners with ADHD can use when they need a break". The data analysis indicates that teachers recognise the importance of environmental modifications and are using a variety of strategies to support learners with ADHD in this area. These strategies align with recommendations in the literature and highlight the importance of creating a supportive and structured learning environment for learners with ADHD.

#### **4.5.4 Teacher training**

The participants consistently expressed their concerns about feeling ill-equipped to effectively support learners with ADHD, emphasising the importance of additional training to enhance their knowledge and skills in this area. This theme aligns with existing literature, which emphasises the significance of teacher training in addressing the unique needs of students with ADHD.

The participants emphasised the value of training and the impact it could have on their ability to support learners with ADHD. One participant stated, "We need more training on how to support learners with ADHD, and we need more resources to help us do so." This sentiment was echoed by Participant B who said, "I often find myself struggling to understand the specific needs of these learners. More training would definitely enhance our ability to support them effectively." These quotes highlight the participants' recognition of the knowledge gap and their desire for professional development opportunities to address it.

The importance of teacher training in supporting learners with ADHD is well-supported in the literature. Research has consistently shown that specialised training programmes can significantly improve teachers' knowledge, attitudes, and practices related to ADHD (Evans et al., 2018; Kern et al., 2016). For example, a study by Taylor and Webster (2019) demonstrated that teachers who participated in a targeted ADHD training programme exhibited increased knowledge about ADHD and implemented more effective instructional strategies. This highlights the positive impact that training can have on teachers' understanding of ADHD and their ability to provide appropriate support.

Furthermore, teacher training programmes have been found to positively influence classroom management, reduce disruptive behaviours, and enhance academic outcomes for students with ADHD (Zentall and Goldstein (2016); Kern et al. (2016) conducted a multisite evaluation of a positive approach to discipline in elementary schools and found that training teachers in behaviour management strategies led to improved classroom environments and reduced disruptive behaviours among students with ADHD.

By equipping teachers with evidence-based strategies and interventions, training programmes can empower educators to create supportive learning environments that meet the unique needs of learners with ADHD. Franke et al. (2019) conducted a randomised controlled trial evaluating an online

training programme for teachers of students with ADHD and found that the intervention group showed improved knowledge, increased use of evidence-based practices, and enhanced student outcomes compared to the control group.

#### **4.5.5 Need for administrative and stakeholder support for ADHD teachers**

The participants consistently expressed a desire for more assistance, resources, and collaborative efforts to effectively support learners with ADHD. This theme is strongly supported by a comprehensive literature review that emphasises the importance of a collaborative and supportive environment for teachers working with students with ADHD.

The participants highlighted the importance of support from school administration in implementing appropriate strategies and interventions for learners with ADHD. Participant A stated, "We need more support from the school administration to implement effective strategies and interventions for learners with ADHD". This sentiment was echoed by Participant D, who emphasised the need for collaboration, saying, "Collaboration with parents and other professionals is crucial. We need a team approach to provide comprehensive support to these learners".

Literature supports the participants' calls for collaboration and support from various stakeholders. A study by Cushion et al. (2019) emphasised the significance of collaborative partnerships between teachers, parents, and professionals in addressing the needs of students with ADHD. The involvement of parents in the educational process, provision of information and strategies, and maintaining open lines of communication have been shown to positively impact student outcomes (Faraone et al., 2015).

The literature also emphasises the importance of access to additional resources and specialised services to support teachers in meeting the needs of learners with ADHD. This includes providing training, professional development opportunities, and access to educational psychologists or specialists who can offer guidance and expertise (Evans et al., 2018). Braude & Dwarika (2020) highlighted the necessity of a collaborative model involving school administrators, teachers, and support personnel in providing effective interventions for students with ADHD.

Moreover, the provision of appropriate accommodations and support services, such as specialised instructional materials, assistive technologies, and individualised education plans, can significantly enhance the learning experiences of students with ADHD (Kern et al., 2016). These resources should be made available through the joint efforts of school administrators and other stakeholders to ensure that teachers have the necessary tools to support learners effectively.

#### **4.5.6 Raising awareness and reducing stigma**

Participants A to F emphasised the need to increase understanding and empathy among teachers, parents, and students, and to create an inclusive school culture that supports the needs of learners

with ADHD. The participants recognised the importance of raising awareness and combating the stigma associated with ADHD. Participant F stated, "There is still a lot of misunderstanding about ADHD. We need to educate everyone about what it really is and how it affects learners." Participant D stressed the need for reduced stigma, saying, "Reducing stigma is crucial. We need to create an environment where learners with ADHD feel accepted and supported by their peers and teachers". These quotes highlight the participants' understanding of the need to raise awareness and foster an inclusive environment for learners with ADHD.

The literature strongly supports the participants' emphasis on raising awareness and reducing stigma. Research has shown that increased awareness and knowledge about ADHD can lead to more positive attitudes and perceptions towards individuals with ADHD (Tungpunkom et al., 2018). By dispelling misconceptions and providing accurate information, teachers, parents, and students can develop a better understanding of the challenges faced by learners with ADHD.

Reducing stigma is crucial for creating an inclusive school culture where learners with ADHD feel accepted and supported. Stigmatisation can have detrimental effects on self-esteem, academic performance, and social relationships for individuals with ADHD (Asherson et al., 2016). Sayal et al. (2018) emphasise the importance of reducing stigma and promoting inclusive practices in schools to enhance the well-being and educational outcomes of students with ADHD.

In addition to fostering acceptance, raising awareness about ADHD can help teachers implement appropriate strategies and interventions to support learners effectively. Teachers who are knowledgeable about ADHD and its impact on learning and behaviour are more likely to adopt evidence-based practices and create supportive learning environments (Cushion et al., 2019). Awareness can also facilitate early identification and intervention, ensuring that learners with ADHD receive timely support.

To effectively raise awareness and reduce stigma, schools can implement various strategies. Workshops or training sessions can be organised for teachers, parents, and students to provide accurate information about ADHD. Guest speakers, educational materials, and online resources can be utilised to increase knowledge and understanding. Creating open discussions and providing opportunities for sharing experiences and perspectives can help foster a supportive and empathetic school environment.

#### **4.5.7 Building teacher self-efficacy**

Participants A to F emphasised the importance of teachers developing a sense of confidence, competence, and belief in their ability to effectively support learners with ADHD. The participants expressed the need for teachers to build self-efficacy in supporting learners with ADHD. ~~One~~ Participant B stated, "We need to feel confident in our abilities to meet the needs of learners with ADHD. Building our self-efficacy will make a significant difference in how we approach and

support these students". Participant B emphasised the importance of a growth mindset, saying, "We need to believe that we can learn and improve in our strategies for supporting learners with ADHD. It's about having a positive attitude and being open to growth".

The literature strongly supports the participants' emphasis on building teacher self-efficacy. Research has shown that teachers with high self-efficacy are more likely to engage in effective instructional practices, develop positive teacher-student relationships, and implement successful interventions (Bandura, 1997). When teachers believe in their own abilities to support learners with ADHD, they are more likely to persist in the face of challenges, adapt their instructional approaches, and provide individualised support.

Professional development and training programmes play a crucial role in building teacher self-efficacy. Participants expressed the need for specialised training focused on ADHD, including strategies, interventions, and behaviour management techniques. By providing targeted professional development, teachers can enhance their knowledge and skills, which in turn boosts their confidence in addressing the specific needs of learners with ADHD (Cushion et al., 2019).

Mentoring programmes and peer support networks were also identified by participants as valuable resources for building self-efficacy. Engaging in reflective practice and receiving guidance from experienced colleagues can help teachers develop their skills, problem-solving abilities, and confidence in supporting learners with ADHD (Epstein et al., 2016). Collaborative learning opportunities, such as professional learning communities or study groups, can also contribute to building self-efficacy by fostering a supportive and collaborative environment.

Creating a positive and supportive school culture is another factor that contributes to building teacher self-efficacy. Participants emphasised the importance of recognising and celebrating successes in supporting learners with ADHD. This positive reinforcement and acknowledgement of teachers' efforts can strengthen their belief in their ability to make a difference in the lives of these students.

#### **4.6 Summary**

Chapter 4 focused on the data analysis and interpretation of teachers' reflections on their support for learners with ADHD in the Foundation Phase. The chapter began by providing an overview of the research objectives and a recap of the data generation process, which involved conducting semi-structured interviews with a sample of teachers experienced in working with learners with ADHD.

The data analysis followed a thematic analysis approach, where the transcribed interviews were carefully reviewed and coded to identify recurring patterns, themes, and sub-themes. Several iterative steps were undertaken in the analysis process, including becoming familiar with the data, coding and categorising responses, and identifying key themes related to teachers' reflections on

supporting learners with ADHD.

The findings revealed various themes that emerged from the data, such as the challenges teachers faced in understanding and managing ADHD behaviours, the need for specialised training and professional development, the importance of individualised support strategies, and the significance of collaboration between teachers, parents, and other professionals. The analysis provided rich insights into the teachers' experiences, perspectives, and reflections on supporting learners with ADHD.

The interpretation of the findings involved making connections between the identified themes, discussing their implications, and relating them back to the existing literature on ADHD and educational practices. The interpretation explored the potential impact of the findings on teaching strategies, curriculum development, and policy recommendations to enhance the support provided to learners with ADHD in the Foundation Phase.

## **CHAPTER 5: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Introduction**

The previous chapter discussed the presentation of data and an analysis of the research findings that were generated from interviews with the six teachers on their reflections of teaching learners with ADHD in the Foundation Phase. This chapter will highlight the findings and recommendations from the study on teachers' reflections on their support for learners with ADHD in the Foundation Phase

### **5.2 Summary of Findings**

This study aimed to explore the knowledge, perceptions, and practices of foundation phase teachers regarding learners with ADHD in Durban, South Africa. The findings are that teachers had limited knowledge and understanding of ADHD and its impact on learners. Furthermore, they faced several challenges in providing effective support, including limited resources, inadequate training, and a lack of collaboration with parents.

Despite these challenges, teachers reported implementing various strategies and interventions to support learners with ADHD, such as individualised instruction, environmental modifications, and behavioural interventions. The study highlights the need for additional training and professional development for teachers to improve their knowledge and skills in supporting learners with ADHD.

The study's recommendations include improving teacher training and professional development programmes, increasing collaboration between teachers and parents, and providing more resources to support learners with ADHD. By addressing these issues, the quality of support provided to learners with ADHD in the foundation phase is likely to improve, ultimately enhancing their academic and social outcomes.

The study found that there is a significant knowledge gap among teachers in Durban, South Africa, when it comes to ADHD, its prevalence, and its symptoms. This lack of knowledge has resulted in challenges in identifying and providing support for learners with ADHD. In addition, teachers face several barriers in providing effective support for learners with ADHD, including limited resources and inadequate training.

The study also highlighted the importance of collaboration between teachers and parents in supporting learners with ADHD, and the need for individualised instruction and environmental modifications to support their learning. Overall, the study's findings point to the need for targeted teacher training and professional development programmes to address the knowledge gap and provide teachers with the necessary skills and strategies to support learners with ADHD in the classroom.

Chapter 4 provided information generated from the six participants arising from the semi-structured interviews and presented according to themes. This study sought to answer the following

questions:

1. What is the level of teachers' current knowledge and understanding of ADHD symptoms, prevalence, and its impact on learners in the Foundation Phase?
2. How do teachers currently employ individualized instruction, environmental modifications, and behavioral interventions to support learners with ADHD in the classroom?
3. What challenges and barriers do teachers encounter in providing effective support to learners with ADHD, including issues such as limited resources, inadequate training, and a lack of collaboration with parents?
4. What areas for improvement can be identified in teacher support for learners with ADHD, and what recommendations can be made for enhancing teacher training and professional development in this area, as well as promoting effective collaboration between teachers and parents?

### **5.2.1 Teachers' lack of knowledge on ADHD**

This study revealed the lack of knowledge of the teachers with regard to the characteristics of ADHD and the treatment thereof. A major concern is that teachers do not receive any support from the SMT, District Office, and Department of Education. As a result, they are unable to manage the learners. They are also unable to advise parents to take the learner for assessment and a diagnosis.

Safaan, El-Nagar and Saleh (2017) conducted a study on teachers' knowledge of ADHD in primary schools and confirmed the key role that teachers can play in identifying and supporting learners with attention deficit hyperactivity disorder. In order to achieve this role however it is important for teachers to have more knowledge about this disorder. As can be seen from the interviews the teachers lack the knowledge of what ADHD is and therefore are unable to teach these learners properly. They also lack skills and strategies to offer support to the ADHD learners.

### **5.2.2 Lack of teacher training**

In terms of teacher training, it was found that teachers had a more general knowledge of how ADHD affects learners, and lacked specific knowledge regarding the symptoms, diagnosis and treatment of the condition. Kern et al. (2015), in their study on South African Teachers' perceptions of ADHD, found that teachers today lack expertise and training of learners with ADHD. Kern et al. (2017) noted that "teachers ... are generally not trained to identify or teach learners with ADHD". This appears to also be true in the South African context.

It is recommended that in-service training courses for teachers be conducted to improve their knowledge on ADHD. Undergraduate programmes should include a compulsory module on teaching learners with special needs, including how to adapt the curriculum to suit the needs of

learner with ADHD. This training must be ongoing with specific teaching strategies and resources being shared. Mass media can be used to enhance the awareness of teachers, parents and community about ADHD. Nurses, family members and teachers can be trained on how to detect the exact problems that a child with ADHD displays and put into place and provide proper intervention strategies. Those responsible for implementing policies and interventions in understanding, assisting and supporting learners with ADHD and their teachers, should enhance them. The Department of Education must set up committees at school level to monitor the progress in this regard.

### **5.2.3 Teacher intervention and management of ADHD in the classroom**

Topkin et al. (2015) found that inclusive education has not been successful due to the lack of teacher's skills and knowledge in the intervention and management of ADHD in the classroom. There seems to be an obvious lack of knowledge on how to plan and manage the teaching and learning of learners with ADHD.

In order to select and implement successful teaching strategies, teachers need to understand the characteristics of the learner according to their disability and diagnosis. This information is very important in applying successful teaching practices. In this study it was found that teachers lacked this knowledge which is obviously crucial in the management of the needs and characteristics of a learner especially in the classroom or school setting. Teachers tend to misinterpret the behaviour as a disciplinary issue and not in the context of ADHD.

Teachers need to understand how integral their role is in the learning and teaching environment. The teacher normally sets the tone in the classroom. Therefore, a teacher's planning and execution of a lesson impacts on the academic performance of the learner. A teacher should constantly use positive reinforcement, rewards and tokens to help build the self-esteem of the child. Rules in the classroom must be clear and consistent. A teacher cannot manage a classroom with no rules as it will result in chaos in the class.

Kapur (2018) states that the class in an educational system is a subsystem of educational management and at the same time a formal organisation. Within this context, classroom management can be defined as the process of organising the classroom environment and its physical structure under certain rules and policies in order to satisfy the expectations of the educational system. Classroom management includes: curriculum, lesson plans, teachers, students, rules, policies, relation patterns, administration of class order, planning, presenting and evaluating educational activities, recognising students' assets, providing student motivation, arranging classroom communication patterns, attaining classroom discipline, operative and dynamic employment of time, and management of human and material resources in order to prevent undesired behaviour on the part of the students.

The majority of the teachers did not have an understanding on how to attain a successful lesson and

how to set goals for the learner with ADHD. It is obvious that the teachers need training and workshops in this area. Therefore, pre-service and in-service training will provide valuable resources and support for teachers teaching ADHD learners in the classroom.

#### **5.2.4 Screening, identification, assessment and support (SIAS)**

The Department of Basic Education released a policy on SIAS related to the needs of all learners in South African Schools, especially those who are vulnerable, marginalised and excluded. There are new roles and responsibilities for an education support system which include DBSTs, Special School Resource Centres, Full-Service schools and SBSTs. The policy states that the new system acknowledges the central role played by teachers and parents in the decision making and support processes (National Education Policy Act, 1996, Act No. 27 of 1996). The SIAS policy document needs to be unpacked at the school level. Teachers need to be made aware of the support system that exists and also be able to implement it and make referrals.

#### **5.2.5 Special needs educational services, school-based support team and management of ADHD within the school**

It seems obvious that teachers rely heavily on the therapists at the school who are their first call for help, and they refer severe cases to the HOD. However, in many cases, the SBST fails to meet to resolve issues related to a learner. They do however have discipline committees related to each phase in the school to address severe behaviour issues. The ADHD learner is regarded as having a behaviour problem rather than having a learning disability.

The SMT needs to set up the SBST and fulfil its role in terms of managing the learner with ADHD. Workshops must be held regularly with the specialists from Special Needs Education Services (SNES) and with teachers who have more experience from other schools. SNES needs to hold integrated workshops. Workshops should include a guide for teachers on how to fill in documents like support needs assessment (SNA) 1 and SNA 2. The SNA 1 form needs to be filled in by the teacher concerned and referred to the SBST. In the SNA 1 form the teacher needs to draw up an Individual Education Programme with the support of the SBST. Meetings need to be held on a regular basis to discuss progress on the learner and implement procedures and steps to follow due to lack thereof. Referrals can then be made to the DBST for further assistance if needs be. Committees need to be set up to monitor and assist teachers to address issues of concern at the national level.

#### **5.2.6 Parental involvement**

The role of the parent of a learner with ADHD is just as important as any other form of treatment. A parent's response to the child can make ADHD better or worse. There is a definite lack of interest on behalf of parents. The parents do not react to the needs of the child. The parent is often indifferent, dismissive or neglectful. The attitude and technique necessary to involve the parent is

also a positive contributing factor.

Mahlo (2017) conducted a study on ADHD in South Africa and found that schools have to take responsibility for involving parents in the education of their child or children. The members of the school need to set up meetings with parents of ADHD learners making them aware of how they could assist the child in the process of their education. Learners will automatically have an increase in confidence and an improvement in their academic performance as they become aware of the involvement of their parents or caregivers in their education and well-being.

Ameer et al. (2018) found that parent training programmes are effective in increasing parental self-efficacy in parents of children with neurodevelopmental disabilities. They state that the aims of these intervention programmes are to reduce the impact of the challenges faced by families of children with learning disabilities. This works through teaching parents' new knowledge and skills to reduce the behavioural, emotional and developmental difficulties of these children.

According to the Owens et al. (2016), mental health professionals can educate the parents of a child with ADHD about the condition and how it affects a family. Thus, the school needs to hold training workshops with the involvement of SNES who have psychologists and other health care professionals that can contribute.

The school can help the child and his/her parents develop new skills, attitudes, and ways of relating to each other. Parents can be trained with skills to encourage the learner and reward a learner for displaying positive behaviour. This will encourage the learner to associate positive behaviour with positive rewards. Parents must also be taught stress management skills as this will enable them to deal more calmly with the child. Support groups can also benefit parents as communication with other parents with similar experiences teaches them skills on how to interact with the child. Behaviour therapy, counselling, and practical support can help learners with ADHD and their families to cope better with everyday problems.

### **5.2.7 The use of the ecological systems theory of Bronfenbrenner in understanding the ADHD learner**

In looking at the ecological systems theory of Bronfenbrenner (1979), the individual interacts with the systems that exist in a social context. Haihambo (2010, cited in Mahlo, 2017) states that these layers result in change, growth, and development (physically, biologically, psychologically, socially and culturally). Whatever happens in one system has a ripple effect on the other systems. One needs to understand the different contexts in order to understand human behaviour.

The ecological systems theory looks at the interactions between the individual and other role players who can make a positive contribution to the learning of the child with ADHD. A learner should

not be viewed in isolation but as part of a reciprocal system (Kern et al., 2015). Therefore, the parent, the teacher, the community, the social worker, the psychologist, the medical practitioners can all make an impact on the learner with ADHD.

In conclusion one needs to take into consideration the micro, meso, exo and macrosystems of the systems ecological theory, in order to have an understanding of the role of the teacher with regards to teaching the learner with ADHD. This is a complex disorder which can be influenced by the different systems in the environment, in the teaching and learning of the child with ADHD. The South African education system is made up of different layers which can greatly benefit the teacher and the learner if they receive greater support in the long run. If the teacher receives support eh benefit will extend to the learner in the classroom.

### **5.3 Suggestions for future studies**

A follow up study could entail looking at teachers understanding and knowledge of ADHD before and after training in Inclusive education, that could be implemented by universities in the undergraduate programme.

### **5.4 Limitations of the study**

The study was conducted in just one school in Durban. The researcher would have gained more data as to what teachers' perceptions are of their support in teaching learners with ADHD in the Foundation Phase, if the study included many schools. The circumstances experienced in the subject school may not be representative of all other schools.

Interviews were used as a method of data generation thereby limiting the study. The researcher depended on the answers given and it is not certain if the subjects were giving their honest opinions or just answering for the sake of answering.

The researcher was limited in the number of teachers willing to participate in this study thus crucial information may have been missed which could have made a positive contribution to this study.

### **5.5 Conclusion**

This chapter elaborated on the findings from the generation of data gathered through the use of semi-structured interviews. Recommendations were made and limitations of the study were indicated.

Given the findings of this study, the researcher concludes that, firstly, participant teachers do not receive adequate support from the SBST, which an almost non-existent, nor from the DBST and the parents. The Department of Education needs to devise in-service training programmes to assist teachers in their lack of knowledge on how to teach a learner with ADHD. Parents need intervention, counselling programmes and a good support system. Various stakeholders need to work together to make this possible.

The SNES need to actively engage with all schools, ensuring that SNA 1 and SNA 2 forms are filled in annually. They need to train educators on how to fill in the documents and how to make referrals. There should be a compulsory module included in undergraduate studies addressing special needs education. White Paper 6 on inclusive education is highlighted but there is no support structure for the implementation of this programme. The Department of Basic Education needs to review its strategy and policy in the best interests of the learner.

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# APPENDICES

## APPENDIX A: INTERVIEW QUESTIONS

1. What is your understanding of the term ADHD?
2. How do you plan your lessons around a learner with ADHD?
3. What measures have you put into place when teaching learners with ADHD?
4. How do you manage discipline in the classroom with learners that have ADHD?
5. Do you use any particular method or approach when teaching learners with ADHD?
6. Have you undergone any specific training with regards to learners with ADHD? If so, how does it help you?
7. Do learners with ADHD have other barriers to learning?
8. Do you use any multisensory instructions in your teaching of learners with ADHD. If so, does this help in any way?
9. Are you able to do group work with learners with ADHD or is it restricted to individual work only?
10. When are learners with ADHD most engaged or least engaged in a lesson.
11. How do you deal with any problems that come up with a learner or group of learners with ADHD?
12. Is there any support offered from the Department of Education (SNES)?
13. Do you get any support from other members of staff, e.g. the therapists or SMT?
14. Is there a School Based Support Team and is it fully operational?
15. Have you received any support from the District Based Support Team?
16. When do you feel that you have had a successful lesson with ADHD learners?
17. Do you engage or interact with parents of learners with ADHD, if so how?
18. What do you find most successful in your reflections of a successful or unsuccessful lesson?

**APPENDIX B: PERMISSION LETTER KHULANGOLWAZI SPECIAL SCHOOL**

Ms K Soobramoney



Westville North  
3629

The Principal and Governing Body  
Khulangolwazi Special School  
32 Streatham Crescent  
Woodlands  
4004

5 September 2020

Dear Principal

**RE: RESEARCH ON THE TEACHERS' PERCEPTIONS OF ADHD ON LEARNERS  
IN THE FOUNDATION PHASE**

I am an educator at Khulangolwazi School presently, I am completing a Masters Degree in Psychology of Education at the University of KwaZulu Natal.

I hereby request permission to conduct research at my place of work. This will not impede on my teaching time and responsibilities. It will take place after school hours. I am hoping that my study will make a positive contribution in terms of special needs education.

All findings will be made available to the Department of Education and all relevant authorities.

Your co-operation will ensure the success of my dissertation.

Thanking you

Yours faithfully

.....

Ms K Soobramoney

**APPENDIX C: PERMISSION LETTER KZN DEPARTMENT OF EDUCATION**

Ms K Soobramoney

████████████████████

Westville North

3629

Department of Education

Pietermaritzburg

Dear Sir

5 July 2020

**RE: RESEARCH ON THE TEACHERS' PERCEPTIONS OF ADHD ON LEARNERS  
IN THE FOUNDATION PHASE**

I am an educator at Khulangelwazi School presently, I am completing a Master's Degree in Psychology of Education at the University of KwaZulu Natal.

I hereby request permission to conduct research at my place of work. This will not impede on my teaching time and responsibilities. It will take place after school hours. I am hoping that my study will make a positive contribution in terms of special needs education.

All findings will be made available to the Department of Education and all relevant authorities. Your co-operation will ensure the success of my dissertation.


Thanking you

Yours faithfully

.....

K Soobramoney

# APPENDIX D: PERMISSION LETTER FROM KZN DEPARTMENT OF EDUCATION

 **education**  
Department:  
Education  
PROVINCE OF KWAZULU-NATAL

Enquiries: Phindile Duma/Buyi Ntuli Tel: 033 392 1063/51 Ref: 2/4/8/4159

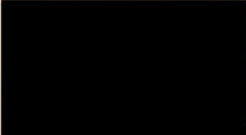
Kalaivani Soobramoney  
15 Blairgowrie Road  
WESTVILLE NORTH  
3629

Dear Soobramoney

**PERMISSION TO CONDUCT RESEARCH IN THE KZN DoE INSTITUTIONS**

Your application to conduct research entitled: **"TEACHER REFLECTIONS ON THEIR SUPPORT FOR LEARNERS WITH ADHD IN THE FOUNDATION PHASE TO BE CARRIED OUT AT SCHOOL A WHICH IS A REMEDIAL SCHOOL IN MONTCLAIR IN DURBAN SOUTH DISTRICT"**, in the KwaZulu-Natal Department of Education Institutions has been approved. The conditions of the approval are as follows:

1. The researcher will make all the arrangements concerning the research and interviews.
2. The researcher must ensure that Educator and learning programmes are not interrupted.
3. Interviews are not conducted during the time of writing examinations in schools.
4. Learners, Educators, Schools and Institutions are not identifiable in any way from the results of the research.
5. A copy of this letter is submitted to District Managers, Principals and Heads of Institutions where the Intended research and interviews are to be conducted.
6. The period of investigation is limited to the period from 06 July 2020 to 10 January 2022.
7. Your research and interviews will be limited to the schools you have proposed and approved by the Head of Department. Please note that Principals, Educators, Departmental Officials and Learners are under no obligation to participate or assist you in your investigation.
8. Should you wish to extend the period of your survey at the school(s), please contact Miss Phindile Duma/Mrs Buyi Ntuli at the contact numbers above.
9. Upon completion of the research, a brief summary of the findings, recommendations or a full report/dissertation/thesis must be submitted to the research office of the Department. Please address it to The Office of the HOD, Private Bag X9137, Pietermaritzburg, 3200.
10. Please note that your research and interviews will be limited to schools and institutions in KwaZulu-Natal Department of Education.

  
/ **Dr. EV Nzama**  
**Head of Department: Education**  
**Date: 06 July 2020**

...Leading Social Compact and Economic Emancipation  
Through a Revolutionary Education for all...

**KWAZULU-NATAL DEPARTMENT OF EDUCATION**  
Postal Address: Private Bag X9137 • Pietermaritzburg • 3200 • Republic of South Africa  
Physical Address: 228 Pietermaritz Street • Ex-NED Building • Pietermaritzburg • 3201  
Tel.: +27 33 3921063 • Fax.: +27 033 3921203 • Email: Phindile.duma@kzndoe.gov.za • Web: www.kzndoe.gov.za  
Facebook: KZNDOE • Twitter: @DOE\_KZN • Instagram: kzn\_education • Youtube: kzndoe

## **APPENDIX E: CONSENT LETTER**

████████████████████

Westville North

Durban

3629

6 July 2020

Dear Teacher

### **CONSENT LETTER**

My name is Kalaivani Soobramoney. I am a Master of Education candidate at the University of KwaZulu-Natal, Edgewood Campus.

I would like to request your permission to interview you in your own time. The aim of the study is to explore teachers' reflections on their support for learners with ADHD in the Foundation Phase. For me to gather the information, I will need to conduct a one-on-one interview session with selected teachers. I will also audio record the interviews.

- Your confidentiality is guaranteed as your inputs will not be attributed to you in person but reported only as a population member opinion.
- Data will be stored in secure storage and destroyed after 5 years.
- You have a choice to participate, not participate or stop participating in the research. You will not be penalised for taking such an action.
- Your involvement is purely for academic purposes only, and there are no financial benefits involved.
- Please indicate (by ticking as applicable) whether or not you are willing to allow the interview to be recorded by the following equipment:

## DECLARATION

I..... (Full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project conducted by Kalaivani Soobramoney who is a Masters student at the university of KwaZulu-Natal.

The research is entitled: *Teachers’ reflections of their support for learners with ADHD in the Foundation Phase.*

I understand that I am at liberty to withdraw from the project at any time, should I desire.

**4.6.2.1.1 Additional consent, where applicable.**

|                       | <b>Willing</b> | <b>Not willing</b> |
|-----------------------|----------------|--------------------|
| <b>Voice recorder</b> |                |                    |

.....

.....

(Sign your name here)

(Date)

I can be contact at:

████████████████████

My Supervisor is Dr. Visvaranie Jairam who is located at the School of Education, Edgewood Campus of the University of KwaZulu-Natal.

Contact details ████████████████████

(Tel): ██████████

You may also contact the Research Office through:

P. Mohum

HSSREC Research Office,

(Tel): ██████████

E-mail: ████████████████████

Thank you for your contribution to this research.

## 4.7 APPENDIX F: ETHICAL CLEARANCE CERTIFICATE



27 October 2020

Miss Kalaivani Soobramoney (8523343)  
School Of Education  
Edgewood Campus

Dear Miss Soobramoney,

**Protocol reference number:** HSSREC/00001964/2020

**Project title:** Teachers reflections on their support for learners with Attention Deficit Hyperactivity Disorder in the Foundation Phase.

**Degree:** Masters

### Approval Notification – Expedited Application

This letter serves to notify you that your application received on 23 September 2020 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL** on the following condition:

**Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.**

This approval is valid until 27 October 2021.

To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

**All research conducted during the COVID-19 period must adhere to the national and UKZN guidelines.**

HSSREC is registered with the South African National Research Ethics Council (REC-040414-040).

Yours sincerely,



Professor Dipane Hlalele (Chair)

/dd

### Humanities and Social Sciences Research Ethics Committee

Postal Address: Private Bag X54001, Durban, 4000, South Africa

Telephone: +27 (0)31 260 8350/4557/3587 Email: hssrec@ukzn.ac.za Website: <http://research.ukzn.ac.za/Research-Ethics>

Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville

INSPIRING GREATNESS

## APPENDIX G: TURNIT IN REPORT

### 4.7.2 Teachers reflections on their support for learners with adhd in the foundation phase

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#### ORIGINALITY REPORT

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|                  |                  |              |                |
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| <b>9</b> %       | %                | %            | %              |
| SIMILARITY INDEX | INTERNET SOURCES | PUBLICATIONS | STUDENT PAPERS |

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#### PRIMARY SOURCES

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**||** 4.7.3 Zaytoon Amod, Adri Vorster, Kim Lazarus. "Chapter 11 Attention-Deficit/Hyperactivity Disorder (ADHD) as a Barrier to Learning and Development within the South African Context: The Perspective of Teachers", IntechOpen, 2013

Publication

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**■** 4.7.4 Ansie C Lessing, Renee Wulfsohn. "The potential of behaviour management strategies to support learners with Attention Deficit Hyperactivity Disorder in the classroom", Education as Change, 2015

Publication

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**■** Dupe Lasisi, Cornelius Ani, Victor Lasebikan, Lateef Sheikh, Olayinka Omigbodun. "Effect of attention-deficit-hyperactivity-disorder training program on the knowledge and attitudes of primary school teachers in Kaduna, North West Nigeria", Child and Adolescent Psychiatry and Mental Health, 2017

<1%

## APPENDIX H: EDITING CERTIFICATE

---

### **DR RICHARD STEELE**

BAHDE MTech(Hom)

**HOMEOPATH**

Registration No. A07309 HM

Practice No. 0807524

**Freelance academic editor**

**Associate member: Professional Editors'**

**Guild, South Africa**

[REDACTED]  
Gxarha [Morgan Bay]

5292

Eastern Cape

[REDACTED]  
rsteele201@outlook.com

---

### 4.7.4.1 EDITING CERTIFICATE

**Re:** Master's dissertation (UK.ZN): **KALAIVANI SOOBRAMONEY**

**Title: TEACHERS' REFLECTIONS ON THEIR SUPPORT FOR LEARNERS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER IN THE FOUNDATION PHASE**

I confirm that I have edited this dissertation and the references for clarity, language and layout. I returned the document to the author with track changes so correct implementation of the changes and clarifications requested in the text and references is the responsibility of the author. The intellectual content of the document is the responsibility of the author. I am a freelance editor specialising in proofreading and editing academic documents. My original tertiary degree which I obtained at the University of Cape Town was a B.A. with English as a major and I went on to complete an H.D.E. (P.G.) Sec. with English as my teaching subject. I was a part-time lecturer in the Department of Homoeopathy at the Durban University of Technology for 13 years and supervised many master's degree dissertations during that period.

Dr Richard Steele

**10JUNE2023**

*per email*