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The Effective Strategies to Teach Learners Diagnosed With Attention Deficit Hyperactivity Disorder

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This research work is dedicated to the memory of my

MOTHER

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In the name of Allah, the Most Gracious and Most Merciful

Firstly of all, I praise **ALLAH** who has given me the ability, strength and patience to complete this work.

Indeed, Abu Huraira reported: the Prophet, peace and blessings be upon him, said, "**He has not thanked Allah who has not thanked people**." Source: SunanAbiDawud 4811.

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Me and supported me emotionally and financially.

ABSTRACT

Students who have Attention Deficit Hyperactivity Disorder often struggle in the classroom with issues pertaining to organization, distractibility, impatience and restlessness. Classroom teachers who offer accommodations to assist the student overcome barriers to learning often wonder what techniques are most effective. As more information about ADHD accommodations becomes available, school professionals can support students with ADHD even more effectively in the classroom than previously thought. Learners diagnosed with ADHD may face challenges with social situations, personal skill development, and academic achievement. Teens with the diagnosis commonly engage in risky behavior, have difficulties with peer relationships, and may experience poor performance in the classroom. Students need coping skills and the ability to self-advocate, to overcome barriers to learning. School counselors and teachers who advocate for students are an important part of the support team as they work with parents, administrators, and experts to develop a plan that meets the needs of the individual student. Strategies that school counselors may use to support students with ADHD include group-work, adjusting the students' schedules, establishing routines, and organization planning. Specialized training and up-to-date workshops will further enhance the skills that school teachers can use in working with students with ADHD.

Keywords:
Attention Deficit Hyperactivity Disorder, Strategies, accommodations, ADHD, diagnosis, learners and teachers.

Table Of content

Dedication I

Acknowledgements II

Abstract III

List Of Tables IV

Liste Of Figures VII

Liste Of Graphes VIII

Liste Of Abbreviations And Accronyms IX

Note On The Language Used X

General introduction

chapter one: Literature Review

Introduction 09

1. Description of ADHD 10

History of Attention Deficit/ Hyperactivity Disorder 11

The types of ADHD (Presentations): 14

4.1. Predominantly Inattentive: 16

4.2. Predominantly Hyperactive-Impulsive: 16

4.3. Combined: 16

5. symptoms and associated of the three ADHD presentation 17

5.1 Symptoms of Inattention and Associated Problems 18

5.2. Symptoms of hyperactivity and impulsivity and associated problems 21

5.3 Symptoms of the combined types and asspciated problems 23

5.4. **Common Coexisting Conditions and Disorders 24**

6. Assessment of ADHD 26

ADHD and Brain Differences 33

Delayed Brain Maturation and Structural Differences 33
Diminished Activity and Lower Metabolism in Certain Brain Regions 34
causes 35
Heredity.. 36
Birth Complications, Illnesses, and Brain Injury... 36
2. Maternal or Childhood Exposure to Certain Toxins.................................. 37
3. Low-birth weight or premature delivery:.. 37
3. ADHD May Be Linked to Persistent Parental Criticism............................ 37
4. Other Environmental Factors.. 38
Conclusion 40

Chapter : Effective Teaching Strategies For Adhd Learners

2.1. Introduction.. 42
2.2. Identifying Young learners with ADHD 42
2.3. ADHD and How it Impacts learners.. 43
2.4 Middle School Students 44
2.5. ADHD and the High School Student.. 45
2.6. ADHD in the Classroom.. 46
2.7. An overall strategy for the successful instruction of children with ADHD 49
2.7.1. Evaluate the learners' individual needs and strengths.......................... 49
2.7.2. Select appropriate instructional practices 49
2.7.3. For children receiving special education services, integrate appropriate practices within an IEP (individualized educational programs)..................... 49

2.7.4. How to implement the strategy: three components of successful programs for children with ADHD 50

2.8. ADHD and the Impact on the Family 59

2.9. Collaboration between Home and School 62

2.10. Conclusion 64

Chapter three : DATA COLLECTION, LAYOUT AND

III.1. Research Design articipants 66

III.2.3. Classroom Observation 69

III.3. Data Analysis 70

III.4. Data Discussion and Interpretation 79

III.5. Limitations of the Study 82

Conclusion 86

LISTE OF TABLES

Table I. The Number of Students 67

Table III.1 70

Table 2: Age Distribution of the diagnosed learners 71

Table 3: High and Middle school learners identified with attention 72

Table 4: High and Middle school learners identified with hyperactivity /impulsivity deficiency.. 74

Table 05 : Teachers' Gender.. 75

LISTE OF FIGURES

1. Figure one: the three type of ADHD 15
2. Figure two: common symptoms of inattentive learner(ADHD).............. 17
3. Figure three: common symptoms of impulsive learner (ADHD)............ 20
4. Figure four: combined ADHD types 22
5. Figure five: common symptoms of impulsive and inattentive 25
6. Figure six: assessment of ADHD 26
7. Figure seven: data sources and assessment 32
8. Figure eight: ADHD affect on the brain 34
9. Figure nine: ADHD brain VS healthy brain 35
10. Figure ten: causes of ADHD 39
11. Figure eleven: teaching strategies 59

list of Graphs

Graph 1: student's Gender 70

Graph 2: Age Distribution of the diagnosed learners 71

Graph 3: Middle And High School Inattentiveness Rating$ deficency 72

Graph 4: Middle and High School hyperactivity/impulsivity Rating 73

Graph 5: High School hyperactivity/impulsivity rating scale 74

table 05 : Teachers' Gender *75*

Graph 6: Teachers' educational cycle *75*

Graph 7: Teachers' Professional Position *76*

Graph8: Teachers' Place of Graduation *76*

Graph 9: Teachers' Experience *77*

Graph10: The final results of the teacher's questionnaire 78

GENERAL INTRODUCTION

Note on the language used

As regards the orthography used throughout this dissertation, the American orthography and spelling have been utilized for a persuasive reason: most of the available references are written and printed in the USA and our personal preferences of the orthography in question are mainly due to its “consistency». Thus, for the sake of this consistency and suitability, the American orthography and spelling have been privilegedinstead.

General introduction

Background of the Study:

Imagine being a teacher working in a school setting and having a student who has difficulty concentrating in class, is very hyperactive, or is often disorganized. Where does the teacher begin to help this student? What are the possible strategies that can be adapted to help this student to succeed in school? These are questions asked by many educators every day and the answers are never the same because the students are not all the same. The most important thing is to consider the individual first and then the disorder. In a classroom of diversity and multiple levels of student ability how does one best accommodate students with Attention Deficit Hyperactivity Disorder? Educators have a responsibility to help all learners reach their potential. The purpose of this literature review is to help educators and school counseling professionals explore the latest techniques and strategies to help students overcome barriers to academic success. It's critical that parents and educators work together because consistency with every student is important. The following pages will include ways to assist a child at school with diagnosed Attention Deficit Hyperactivity Disorder (ADHD) so the child may be able to function with the help and support from knowledgeable and helpful staff. As it is the educator's duty to provide reasonable strategies, accommodations and resources to enable the student to get a proper education. ADHD is a diagnosis given to those students who are easily distracted, have trouble staying focused in class and have a need to move around in the classroom.

Teachers may be quick to label a student with ADHD who misbehaves in the classroom or is overly active; however, there is much more to labeling a student with ADHD than just hyperactivity. ADHD includes a triad of inattention, and/or, hyperactivity, and/or impulsivity. Inattentive students may have problems paying attention and are sometimes easily distracted. The diagnosis of ADHD should come from medical professional agent and not from a classroom teacher.

General introduction

The two factors of inattentiveness are being easily distracted and may create limited ability to stay focused on the task at hand. For example, if the students are given time to do their homework in the classroom and the room is quiet with the exception of two students whispering, the student with ADHD may be less likely to concentrate on the homework because the whispering may distract him from doing the homework. The limiting factor of this symptom is that the student is easily distracted thus making it a challenge for him to get back on the task. Another symptom of ADHD is having difficulty with organizational skills. For the student with ADHD, this could include forgetting things, misplacing items, or partially completing an assignment due to lack of focus. If the student does not remember to bring a pencil to class or if they forget their homework in their locker, or if they misplace their materials on a daily basis, the ADHD disability may limit their success in the classroom.

Symptoms of hyperactivity include talking excessively or fidgeting, Nervousness and constantly moving around. In the classroom this symptom could be noticeable when the student is asked to engage in quiet play and cannot seem to be quieter still. The student might seem on-the-go all the time and may have excess energy that never seems to bum off. The student might have difficulties staying seated and must consistently be reminded to sit down and stop roaming the room.

Symptoms of ADHD impulsivity may include randomly bursting out with answers in the classroom, interrupting, have difficulties waiting for their tum, or intruding. An example of impulsivity may include blurting out an answer before the teacher has finished asking the question. Another example is when the teacher is talking-to another student and the student with ADHD runs up to interrupt the conversation. Waiting their tum and being patient is a difficulty of children diagnosed with impulsivity.

The specific laws that require school professionals to ensure a student with disabilities

is getting the appropriate education possible were put into place to help all students to have equal opportunity for success at school. It is the school's responsibility to know, understand, and provide the reasonable accommodations to be in compliance with the various laws to help the disabled. It is important to understand the characteristics of children diagnosed with ADHD to understand the disorder itself.

Scientists, doctors, mental health professionals and school officials are becoming more aware of the needs of the students diagnosed with ADHD, and are working together to provide opting learning conditions for success at school. As medical specialists move closer to find causes and an improved treatment plans, they will be able to assist those with the diagnosis of ADHD as they maintain a normal life at home and at school. School counselors play an important role in assisting these students. Knowing the best accommodations, supporting students with ADHD diagnosis, and working with teachers to develop a plan for the students may create the best learning environment for all.

The purpose of conducting this study is to discover the most effective strategies for teaching learners with ADHD. To attain the afore-stated purpose, the following objectives are targeted:

1- To raise awareness in Algerian classroom about ADHD

2- To help teachers identify learners with ADHD

3- To discover the best practices and the most effective strategies to meet the academic needs of children diagnosed with ADHD.

4- To raise the awareness level of both teachers and parents to identify children who Suffer from attention deficit hyperactivity disorder and how it affect their psychological, academic and social abilities

5- To evaluate strategies specifically designed to support the unique challenges that face students with ADHD in the classroom and to rate how effective they are .

6- To help the teacher to be better understand learners who are lacking adequate social skills. This knowledge will assist in the implementation of interventions designed to assist learners in the development of their education, which will lead to success within the classroom, as well as with their peer groups. And Help both School teachers and parents find a zero ground base so they can understand children better and more efficiently, by providing a set of variable ways to diagnose the children affected by ADHD and the proper methods to deal with it.

This research has been undertaken to find a reliable answer to the following problematic:

What are the most effective strategies to teach learners diagnosed with attention deficit hyperactivity disorder? to answer this problematic these questions have been raised:

1. What is ADHD?
2. How can teachers successfully diagnose ADHD?
3. What are the most effective strategies that can teachers adapt to engage ADHD learners for better achievement?

To achieve the study's purpose and objectives and to answer the research questions, it has been hypothesized that ADHD maybe a real disorder that can be identify by impulsiveness, inattention and hyperactivity. Following hypothesis, it may be further assumed that: teacher can successfully diagnose ADHD through:

1- Observation of learner's behavior during the lesson.

2- Giving a check list to the learner's parents to complete

3- Making an interview with the learner.

The last hypothesis, maybe further assumed that: the most effective strategies that can teacher adapt to engage ADHD learner for better achievement may be experiential and interactive.

Limitations:

There are several limitations associated with this research:

1. Because of the strike the researcher could not find enough respondents to fill the questionnaires as required.
2. Time was insufficient to collect more information about the ADHD disorder.
3. Teachers did not have previous information about ADHD disorder with made it a challenge for the researcher to conduct the study.
4. It was required that parents participate in this study with teachers and answer some questionnaires but due to the lack of collaboration of parents, it was impossible.
5. Besides, there were some hesitations from the respondents when they answered the questionnaires.
6. Eight (8) questionnaires were not handed back.

It has been noticed that teachers are facing difficulties presenting their lessons due to an abnormal and continual disturbance of some students which lead to other problems such as noisy classroom, lesson misexplained because of the regular interruption of those students. time lost , incomplete lesson … it has been decided to investigate this study to discover the real reason behind these student's behavior , and whether it has to do with ADHD disorder and find out the most effective strategies to make them focus and grasp the lesson to successes at school .

Methodology:

This thesis is divided into three interrelated chapters. The first chapter represents the theoretical part of the present work, while the next two chapters are devoted to the practical part.

Chapter one reviews the literature related to "ADHD". It presents the definition of ADHD, its theories, and its types. It, then, focuses on the significance of ADHD presence

in teaching.

The second chapter provides detailed teaching strategies for school educators to engage young learners diagnosed with inattention deficit disorder or impulsive/hyperactive issues. And discusses the impact of The Attention Deficit Hyperactivity Disorder on the life of the teenagers in general and young learners in a particular way, both middle school and high school learners are closely examined. A second key role element has brought to light in this chapter, which is the family and the impact of ADHD on them, and the need of establishing a common ground between the two main learners environmentthe school and the family for the sake of of building a collaboration basis

Chapter three is subdivided into two sections. The first section is devoted to the analysis and the discussion of the collected data from both of the students" and teachers" questionnaires and classroom observation. Some recommendations are subsequently emphasized in the second section of the same chapter. These recommendations are based upon the triangulation of findings obtained from students questionnaire, teachers" questionnaire and classroom observation. Ultimately, some limitations met in conducting this research are reviewed briefly.

It is essential to mention the type of this research is mainly scientific, as clinical interactions were used in this research paper.

Target Population

The research work is provided by Ibnkhaldoun university - Tiaret - This study used a multidimensional interpretative model with an 'informant style' of both check list and interviewing to retrieve information from teachers, Observation for children in two different educational stages (middle and high school) to learn about the reality of living with ADHD. The subjects are learners from first year students in each cycle.

THEORETICAL PART

CHAPTER ONE

LITERATURE REVIEW

PERCEPTION OF ATTENTION DEFICIT HYPERACTIVITY DISORDER

1. **Introduction**

2. **Description of ADHD**

3. **History of Attention Deficit/ Hyperactivity Disorder**

4. **The types of ADHD (Presentations):**

4.1.Predominantly Inattentive:

4.2.Predominantly Hyperactive-Impulsive:

4.3.Combined:

5. **Symptoms and Associated Problems of the Three ADHD Presentations**

5.1.Symptoms of Inattention and Associated Problems:

5.2.Symptoms of Hyperactivity and Impulsivity and Associated Problems:

5.3.Symptoms of the combined types and asspciated problems

5.4.Common Coexisting Conditions and Disorders

6. **Assessment of ADHD:**

    6.1.Clinical examination

    6.2.DSM-5 Criteria

    6.3.Clinical Interview

    6.4.Rating Scales

    6.5.Observations

    6.6.Academic and Intelligence Testing

7. **ADHD and Brain Differences**

8. **Causes of ADHD:**

    8.1.Heredity

8.2.Birth Complications, Illnesses, and Brain Injury

8.3.Maternal or Childhood Exposure to Certain Toxins

8.4.**Low-birth weight or premature delivery:**

8.5.ADHD May Be Linked to Persistent Parental Criticism

8.6.Other Environmental Factors

Conclusion

Chapter one Littérature Review

1. Introduction

This chapter will provide school professionals and teachers with information about Attention Deficit Hyperactivity Disorder (ADHD). Literature was reviewed to determine how ADHD affects students in the school setting. Also discussed in this chapter is how to ecognize symptoms of ADHD and explore options for reasonable assessments and evaluating methods causes and effects. This chapter concludes with information regarding the perception of ADHD to teachers and students of different age levels in the elementary, middle level, and high school settings.

It is important to know the symptoms of ADHD as it may help school counselors provide proper strategies to assist students. Literature indicates an increase in diagnoses of children with ADHD, and a need to make reasonable accommodations for children in the school setting. As part of the treatment plan, some parents and medical professionals may choose to use medications. As ADHD is a medical diagnosis, consulting with qualified medical professionals who have experience in working with adolescents with ADHD is recommended, following their treatment plan, and monitoring for each individual child.

2. Description of ADHD

Can you imagine living in a fest-moving world where sounds, images, and thoughts are constantly shifting and you are helpless to keep your mind on tasks you need to complete? Distracted by unimportant sights and sounds, your mind drives you from one thought or activity to another. For many children, this is what it is like to have attention deficit hyperactivity disorder.

Attention-Deficit Hyperactivity Disorder or ADHD is a neurological condition that has come to greater attention of parents, schoolteachers and the general public in recent years. All over history, aspects of the disorder - hyperactivity, inattention and impulsivity - have been discovered in children. It had only been understood, diagnosed and provided with support in these late decades. Heightened awareness of the disorder has positive and negative assumption for teachers. On one hand, plenty of educational research has provided modernized ideas for teachers and a wealth of resource materials have become available. On the other hand, some parents and educators are curious to know if the ADHD diagnosis is being overused to account for a number of other conditions that may result in the same behavioural patterns. Teachers must address the day to day challenges of working with students who exhibit these characteristics regardless of controversies.

Students with ADHD typically face difficulties in achieving success academically or socially. Student with addictions may have further complications establishing and maintaining complete relationships with peers and teachers. These interrelated complications can cause a spiral effect as the child matures : difficulty with organization can lead to bad marks; peer relationship problems lead to a feeling of elimination which in turn can lead to depression; and depression by it turn impact on student's functioning areas. This destructive spiral may be counteracted when significant work is implemented with these kinds of students.

This resource guide is intended to assist teachers in planning and providing supports for students with ADHD. They should pay special attention to help students with ADHD discover their potential and deal with the challenges they face in their learning process through a set of strategies and techniques.

3. History of Attention Deficit/ Hyperactivity Disorder

ADHD is one of the most misunderstood, misinterpreted, and Misdiagnosed syndromes researched by professionals today. However, the disorder is treated as though it were some recently discovered esoteric phenomenon with life threatening properties; when in fact, it's just simply a facet of behavior. It is not as serious as most people or researchers wish us to believe.

Before 1900, only a few papers existed and described the cognitive and behavioral consequences of central nervous system injuries like trauma and infection. In the early 1900's, Englishman George Still was one of the first to shift attention to behavioral symptoms of the disorder as unnatural, relative to normal children at a given age He also described many children coming from what Dr. R Barkley, from the University of Massachusetts Medical School, has described as ***"a chaotic family life"*** and many others coming from ***"a seemingly adequate upbringing"***. The overall prognosis for these young people was pessimistic and "special educational environments" were encouraged.(Barkley, 1990,p.4)

ADHD has been prevalent for many generations, but under different names. Ebaugh (1923) was among the first to investigate this topic. Dr. Attention-Deficit 12 Ebaugh, a physician and Director of the Near-psychiatric Department of the Philadelphia General Hospital became fascinated with the disease "epidemic encephalitis" with respect to its affect on adolescents. In North America, in 1917-1918 epidemic of encephalitis left many children with substantial behavioral and cognitive losses that were similar to what we now consider

ADHD symptoms. Clinicians continued to recommend treatment and care outside the home and outside normal educational facilities.(Pooley, 1995)

Ebaugh found that children afflicted with the condition were: quarrelsome, hyperkinetic, impulsive, talkative, moody, irritable, incorrigible, and suffered from insomnia. His report is among the first to hyperactivity/hyperkinesis phenomenon. During the past 70 years, hyperactivity has shifted from one name to another. In the 30's, the disorder was referred to as "restlessness," "irritability," "overactivity," and Charles Bradley's (1937) term, "organic behavior syndrome." Beginning in the late 1930's, investigators here in the U.S. studied other possible causes and behavioral expressions of brain injury in children, noting that hyperactive children displayed similarities to those of primates with frontal lobe lesions, suggesting pathological defects (Barkley, 1990). This concept of a "brain injured child" was popular, and it drifted into the 1940's. Clinicians advocated educating these children with "minimum brain damage" (MBD) in smaller, more carefully-regulated classrooms with minimal stimuli.

We now know that more stimulation rather than less is the desired treatment environment for these disordered children. Also in the 1940's the behavioral term of choice was "distractibility" rose to popularity.(Barkley, 1990)

Clements (1966) indicated that since it was difficult to prove that an Attention-Deficit 13 child was afflicted with "minimal brain damage," or "Strauss Syndrome" as it was commonly called. Perhaps, the term "minimal brain dysfunction" was more appropriate. In the 1950's and 1960's, the concept of MBD faded as it became recognized as too vague, too inclusive and of little help to indicate prognosis. More specific labels appeared to describe cognitive, learning and behavioral disorders (cognitive disabled (CD), Learning Disabled

(LD), Behaviorally Disabled (BD), etc.). The concept of "the hyperactive child" rose to popularity in the later 1960's, and a description of excessive activity level found its way into the American Psychiatric Association's DSM-II in 1968.

Also in the 1960's, noted researcher Stella Chess authored papers that emphasized a behavioral syndrome that may be a result of organic pathology. Her description included less serious or pervasive behavioral problems. Her recommendations for treatment encouraged a multi-modal approach including parent counseling, behavioral modification, psychotherapy, medication and special education.(Barkley, 1990)

Interestingly, Chess and others suspected that the disorder was resolved by the onset of puberty (Barkley, 1990), although Dr. Parker reflects, "...we now know that a substantial number of hyperactive children will grow up to be hyperactive adults" (Parker, 1988, p. 1). Furthermore, Shekim (1990) contends that the course of ADD/ADHD among adults is extremely variable.

The director of Mental Retardation and Child Psychiatry, Division of Pediatric Psychopharmacology at UCLA's Neuropsychiatric Institute, Shekim also argues that one group of adults may have virtually undetectable signs and function normally, while another group may have significant problems in difficulties at work, in interpersonal relationships, family and marital strife, poor self-esteem, irritability, mood swings and depressive and anxiety Attention-Deficit 14 disorders.

Over 2,000 published studies in the 1970's still emphasized hyperactivity but also broadened discussion to include impulsivity, short attention span, low frustration tolerance, distractibility and aggressiveness. Noted ADD/ADHD authority Barkley clarifies that,

"These writings emphasized the lack of evidence for a syndrome, in that the symptoms were not well defined, did not correlate significantly among themselves, had no well-specified etiology, and displayed no common course and outcome".

During the 1970's, rapid increase in the use of stimulant medications with hyperactive children was noted along with increased national publicity about this Ritalin treatment. Also during this decade, Congress passed the Vocational Rehabilitation Act of 1973 (Public Law, 93-112). Together these events seemed to heighten the nation's awareness of disabilities. (Pooley,1995)

Broadly speaking, the 1980's and 1990's have generated considerable literature, an explosion of learning intervention strategies and more clearly defined diagnostic criteria. The Diagnostic and Statistical Manual of Mental Disorders, Third Edition-Revised (DSM-III R), published in 1987, has four pages of specific information, explanation and diagnosis criteria about ADD/ADHD; the fourth edition (DSM IV), published in 1994, has eight pages. This suggests growing public and professional concern about this prevalent childhood disorder.

4. The types of ADHD (Presentations):

We noted earlier, there are three types or what are now called "presentations" of ADHD, based on the symptoms. Although all people will exhibit these behaviors at times to a certain degree, for those with ADHD, the symptoms far exceed that which is normal developmentally (in frequency, level, and intensity), have been evident and problematic in multiple settings, and interfere with the person's functioning or development. There are other diagnostic criteria that must be met as well, which will be described in more depth in later on in this chapter

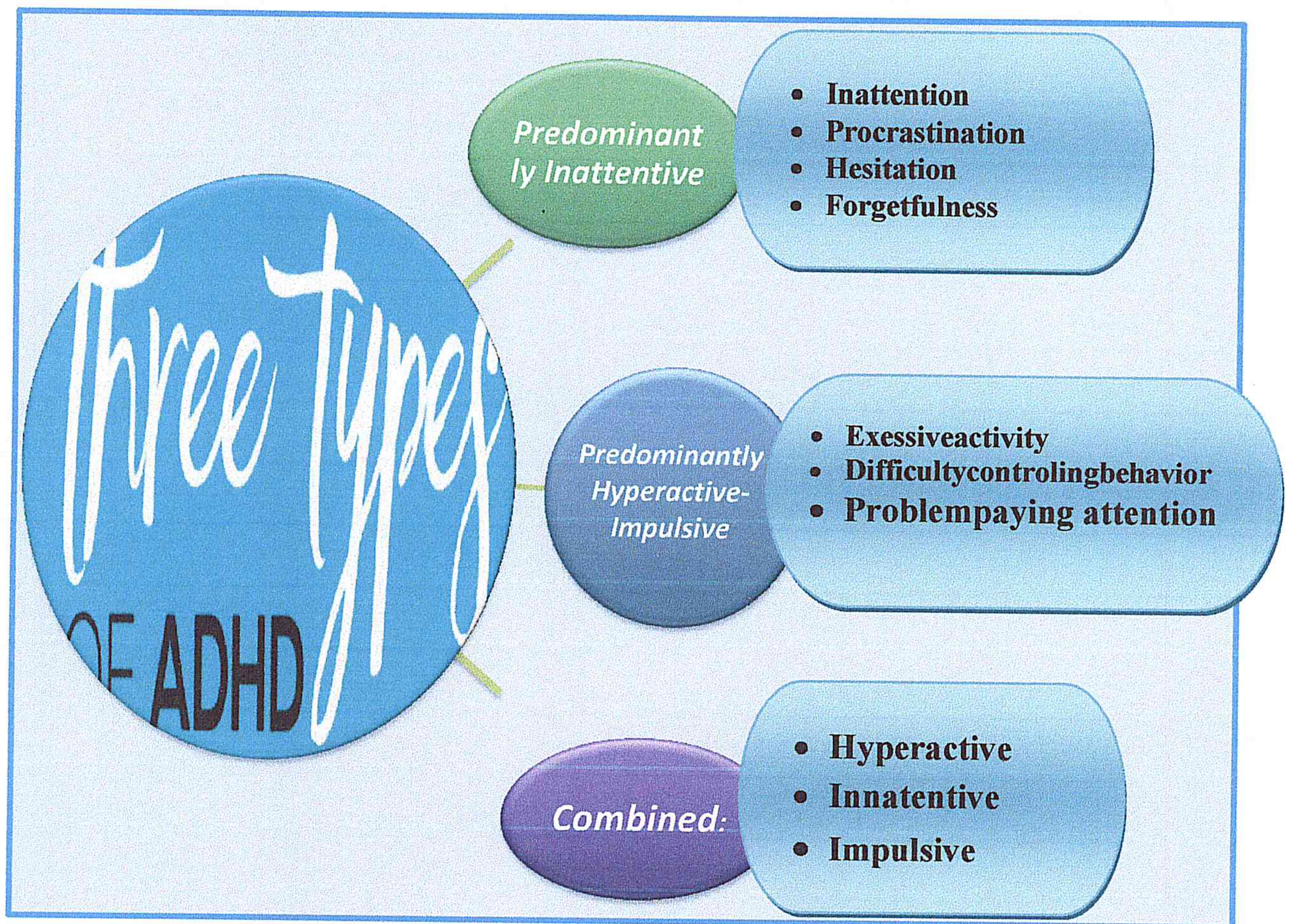


FIGURE ONE: THE THREE TYPES OF ADHD

This figure represents the three types of ADHD. The first is predominantly inattentivetype,it isrecognized by the following symptoms : inattention , procrastination, hesitation and forgetfulness. The second type is predominantly hyperactive-impulsive. It is known by the following symptoms: problem sustainingattention, excessive activity and difficulty controlling behavior. Combined is the third type of ADHD. Learners with this type of ADHD are hyperactive,inattentive and impulsive.

4.1.Predominantly Inattentive:

This presentation is what some people prefer to call ADD, because those who receive this diagnosis do not have the hyperactive symptoms. They may show some of them, but not a significant amount. These children and teens often slip through the cracks and are not as easily identified or understood. Because they do not exhibit the disruptive behaviors associated with ADHD, it is easy to overlook these students and misinterpret their behaviors and symptoms as "not trying" or "being lazy." Many girls have the predominantly inattentive presentation of the disorder.

Be aware that people with ADHD who have significant attention difficulties are often able to be focused and to sustain attention for long periods of time when they play video games or are engaged in other high-interest, stimulating, and rapidly changing activities. In fact, many hyper-focus on such activities and have a hard time disengaging from them.

Individuals with this presentation of ADHD have a significant number of hyperactive-impulsive symptoms. They may have some inattentive symptoms that are developmentally inappropriate, but not a significant number of them.

4.2.Predominantly Hyperactive-Impulsive:

Hyperactive-impulsive ADHD (without the inattention) is most commonly diagnosed in early childhood. Children receiving this diagnosis are often reclassified as having the combined presentation of ADHD when they get older and the inattentive symptoms emerge more and become developmentally significant.

4.3.Combined:

This is the most common presentation of ADHD—a significant number of symptoms exist in both the inattentive category and the hyperactive-impulsive category

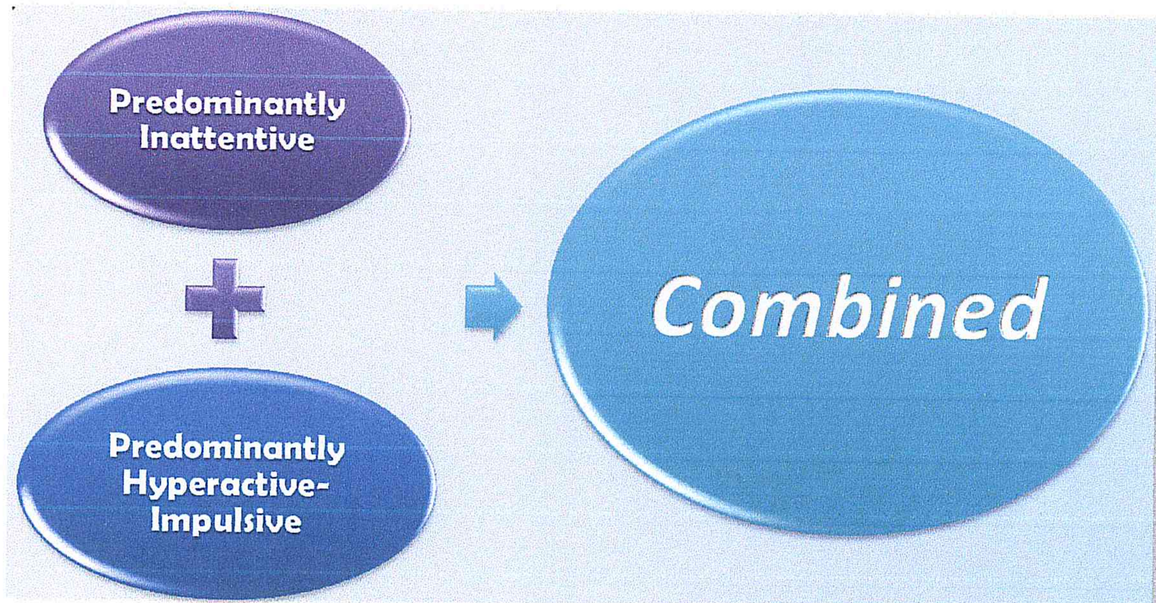


FIGURE TWO: THE BIRTH OF THE COMMBINED TYPE

This figure shows the birth of the third type of ADHD “combined” which is a combination of the two first types of ADHD predominantly inattentive and predominantly hyperactive-impulsive.

5. Symptoms and Associated Problems of the Three ADHD Presentations

The following symptoms are listed in the DSM-IV and are used by qualified health professionals to diagnose AD/HD. Some of these symptoms must be displayed in a number of settings, persist over at least six months and must have been observed prior to age seven in order for the diagnosis to be made. The following information is not intended for diagnostic purposes; a referral for diagnosis should be made to a physician or registered psychologist with training in AD/HD and other childhood disorders. The following symptoms are paraphrased from the DSM-IV.

5.1. Symptoms of Inattention and Associated Problems:

- ❖ Often fails to give close attention to details or makes careless mistakes in schoolwork, at work, or with other activities.
- ❖ Often has trouble holding attention on tasks or play activities.
- ❖ Often does not seem to listen when spoken to directly.
- ❖ Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (for example, loses focus, side-tracked). Note: This is not due to oppositional behavior or failure to understand instructions.
- ❖ Often have trouble organizing tasks and activities.
- ❖ Often avoids, dislikes, or is reluctant to do tasks that require mental effort over a long period of time (such as schoolwork or homework).
- ❖ Often loses things necessary for tasks and activities (for example, school materials, pencils, books, tools, wallets, keys, paperwork, eyeglasses, and mobile telephones).
- ❖ Is often easily distracted.
- ❖ Is often forgetful in daily activities.
- ❖ Has difficulty concentrating and is easily pulled off task.
- ❖ Tunes out, daydreams, may appear "spacey."
- ❖ Requires a lot of adult prompts and refocusing to complete tasks.
- ❖ Have many incomplete assignments and unfinished tasks.
- ❖ Has difficulty working independently; needs a high degree of supervision and redirecting of attention to task at hand.
- ❖ Exhibits poor listening: not following directions, being pulled off topic in conversations, not focusing on the speaker.
- ❖ Makes many errors with academic tasks requiring attention to details and accuracy (such as math computation, spelling, and written mechanics).
- ❖ Cannot stay focused on what he or she is reading (loses place, misses words and details, and needs to reread the material).
- ❖ Exhibits poor study skills, such as test-taking and note-taking skills.
- ❖ Goes off topic in writing, losing train of thought.

- ❖ Makes many written errors in capitalization and punctuation; has difficulty editing own work for such errors.
- ❖ Makes numerous computational errors in math due to inattention to operational signs (plus, minus, multiplication, division), decimal points, and so forth.
- ❖ Does not participate in class, or participates minimally (such as math computation, spelling, and written mechanics).
- ❖ Cannot stay focused on what he or she is reading (loses place, misses words and details, and needs to reread the material).
- ❖ Exhibits poor study skills, such as test-taking and note-taking skills.
- ❖ Goes off topic in writing, losing train of thought.
- ❖ Makes many written errors in capitalization and punctuation; has difficulty editing own work for such errors.
- ❖ Makes numerous computational errors in math due to inattention to operational signs (plus, minus, multiplication, division), decimal points, and so forth.
- ❖ Appears to have slower speed of processing information (for example, responding to teacher questions or keeping up with class discussions).
- ❖ Misses verbal and nonverbal cues, which affects social skills.
- ❖ Appears to have slower speed of processing information (for example, responding to teacher questions or keeping up with class discussions).
- ❖ Misses verbal and nonverbal cues, which affects social skills.
- ❖ Does not participate in class, or participates minimally.

FIGURE THREE: COMMON SYMPTOMS OF INATTENTIVE

This figure represents the common symptoms of inattentive learner which are:

- difficulty in following instructions and failing to complete the tasks
- difficulty in organizing tasks and activities
- often distracted by extraneous stimuli
- forgetfulness in daily activities
- avoidance of activities the demand sustain mental effort

- often does not listen when spoken to him directly
- failure to pay close attention to details and making careless mistakes

5.2. Symptoms of Hyperactivity and Impulsivity and Associated Problems:

- ❖ Often fidgets with or taps hands or feet, or squirms in seat.
- ❖ Often leaves seat in situations when remaining seated is expected.
- ❖ Often runs about or climbs in situations where it is not appropriate (adolescents or adults may be limited to feeling restless).
- ❖ Often unable to play or take part in leisure activities quietly.
- ❖ Is often "on the go" acting as if "driven by a motor."
- ❖ Oftentalksexcessively.
- ❖ Often blurts out an answer before a question has been completed.
- ❖ Often has trouble waiting his or her turn.
- ❖ Often interrupts or intrudes on others (for example, butts into conversations or games).
- ❖ Has difficulty keeping hands and feet to self.
- ❖ Knows the rules and consequences, but repeatedly commits the same errors or infractions of rules.
- ❖ Has difficulty standing in lines.
- ❖ Gets in trouble because he or she cannot stop and think before acting (responds first, thinks later).
- ❖ Does not think or worry about consequences, so tends to be fearless or to gravitate toward high-risk behavior.
- ❖ Is accident prone and breaks things.
- ❖ Has difficulty inhibiting what he or she says, making tactless comments; says whatever pops into his or her head and talks back to authority figures.
- ❖ Begins tasks without waiting for directions (before listening to the full direction or taking the time to read written directions).
- ❖ Hurries through tasks, particularly boring ones, and consequently makes numerous careless errors.
- ❖ Gets easily bored and impatient.

- Does not take time to correct or edit work.
- Disrupts, bothers others.
- Is highly energetic, in almost nonstop motion.
- Engages in physically dangerous activities (for example, jumping from heights, riding bike into the street without looking); hence, has a high frequency of injuries.
- Cannot sit still in chair (is in and out of chair, rocks and tips chair over, sits on knees, or stands by desk) or sit long enough to perform required tasks.

Engages in a high degree of unnecessary movement (pacing, tapping feet, bouncing leg, tapping pencil, drumming fin

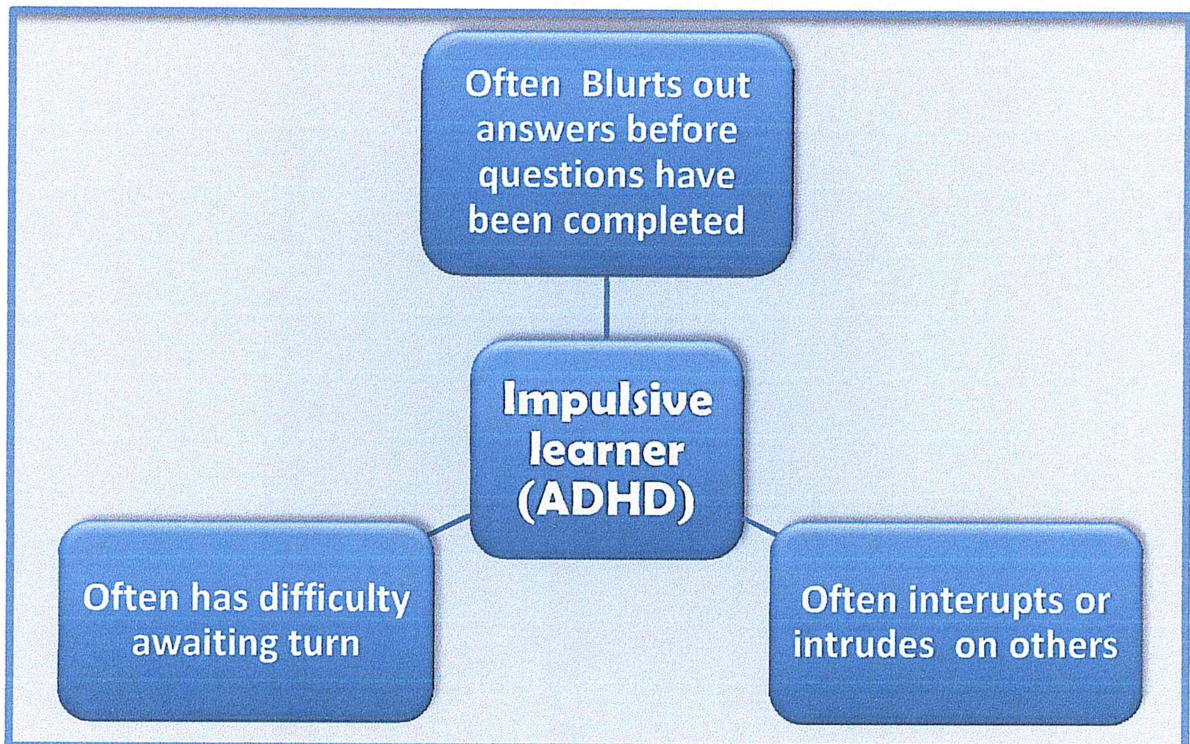


FIGURE FOUR: COMMON SYMPTOMPS OF IMPULSIVE LEARNER (ADHD)

This figure represents symptoms of impulsive learner, impulsive learner often interrupts or intrudes on others, he often has difficulty waiting turn and impulsive learner often blurts out answers before the questions have been completed.

5.3.Symptoms of the combined types and asspciated problems

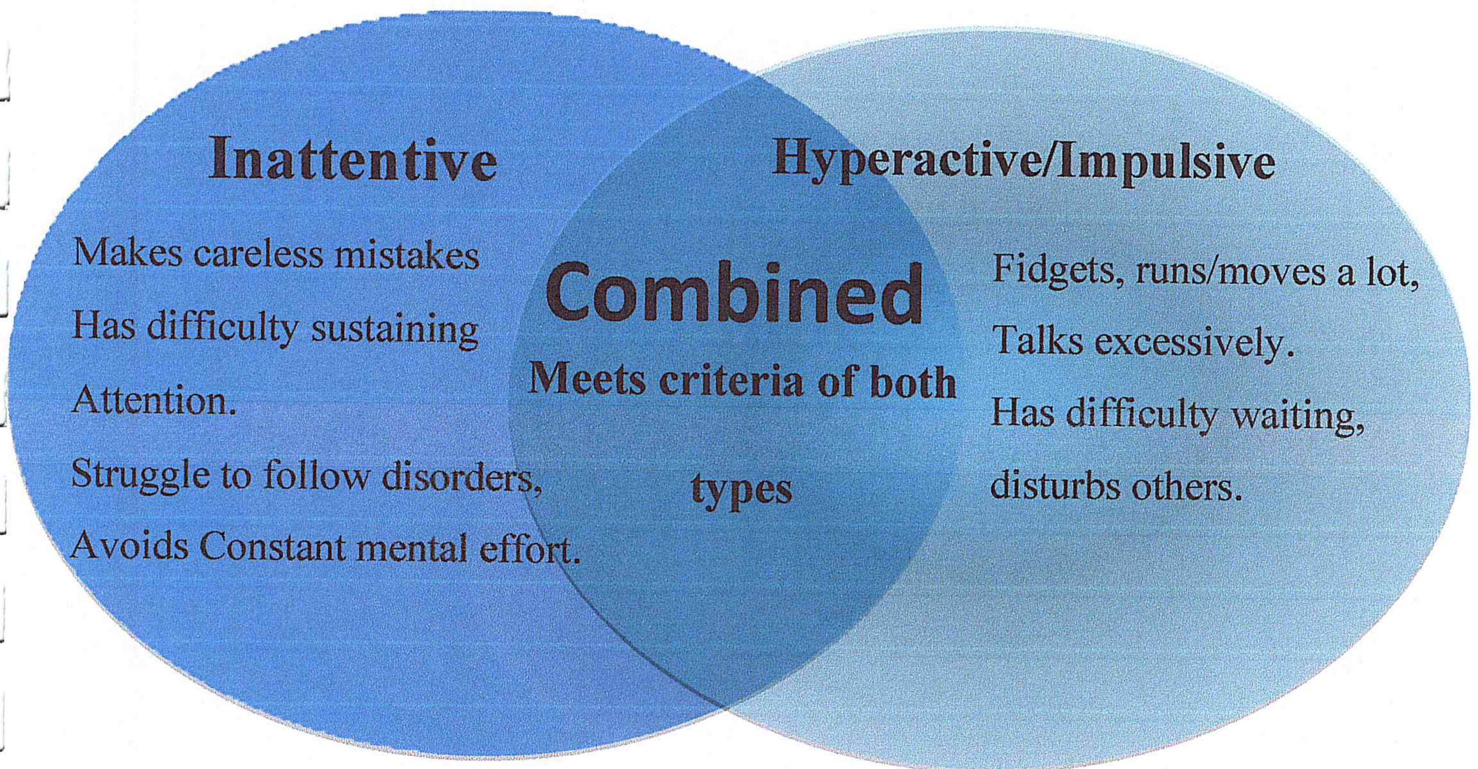


FIGURE FIVE: COMMON SYMPTOMS OF COMBIENED TYPE LEARNER

This figure represents symptoms of inattentive and impulsive types. Only whencriteriaof both types are met can give birth to the combined type.

5.4.Common Coexisting Conditions and Disorders

The reported prevalence of specific coexisting conditions and disorders accompanying ADHD varies depending on the source. Most sources indicate the following ranges:

1. **Oppositional defiant disorder (ODD).** Approximately 40 percent of children and teens with ADHD develop ODD (National Resource Center on AD/HD, 2015). It occurs eleven times more frequently in children with ADHD than in the general population. *(Barkley, 2013)*
2. **Anxiety disorder.** Up to 30 percent of children and up to 53 percent of adults with ADHD have this disorder (National Resource Center on AD/HD, 2015).
3. **Conduct disorder (CD).** Approximately 27 percent of children, 45–50 percent of adolescents, and 20–25 percent of adults have this disorder.
4. **Bipolar.** Up to 20 percent of people with ADHD may manifest bipolar disorder.
5. **Depression.** Approximately 14 percent of children with ADHD and up to 47 percent of adolescents and adults have this disorder.
6. **Tics, Tourette syndrome.** About 7 percent of those with ADHD have tics or Tourette syndrome, but 60 to 80 percent of Tourette syndrome patients also have ADHD.
7. **Learning disabilities.** The reported range is from 20 to 60 percent; with most sources estimating that between one-quarter and one-half of children with ADHD have a coexisting learning disability (such as dyslexia).

"Up to 50 percent of children with ADHD have a coexisting learning disorder, whereas 5 percent of children without ADHD have learning disorders" (National Resource Center on AD/ HD, 2015)

8. **Obsessive-compulsive disorder (OCD).** **"***Up to one-third of people with ADHD may have OCD." (Goodman, 2010; Kutscher, 2010)*

9. **Sleep disorders.** One-quarter to one-half of parents of children with ADHD report that their children suffer from a sleep problem, especially problems with falling asleep and staying asleep.

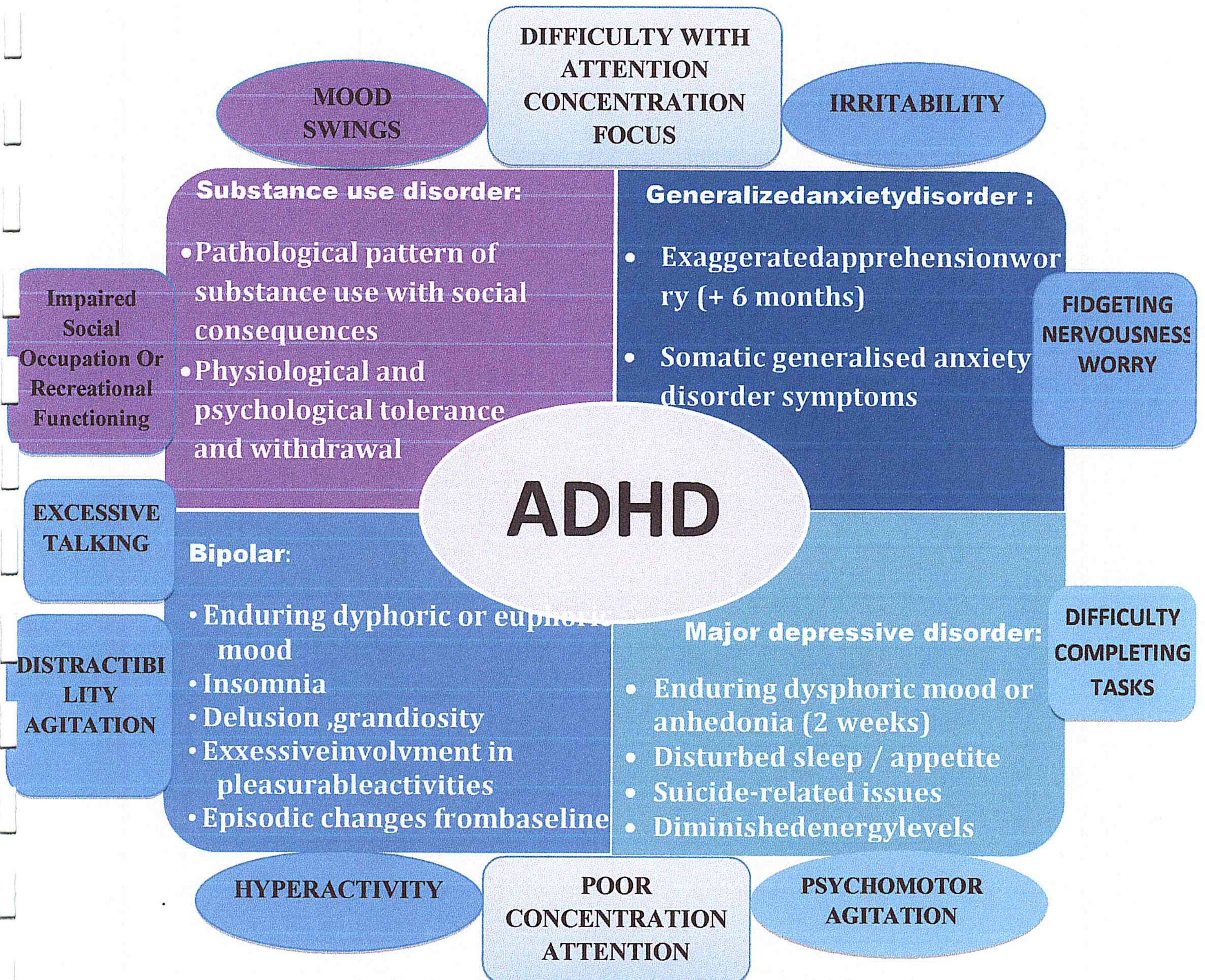


Figure Five:Common Coexisting Conditions and

The figure above displays the different mental and behavioural abnormalities, and the Common Coexisting Conditions and Disorders that can go along with it

6. Assessment of ADHD:

The diagnosis of ADHD is not achieved through a simple or quick process. There is no laboratory test or single measure to determine if a person has ADHD, and no particular piece of information alone can confirm or deny the existence of ADHD. Nevertheless, ADHD canbediagnosedreliably.

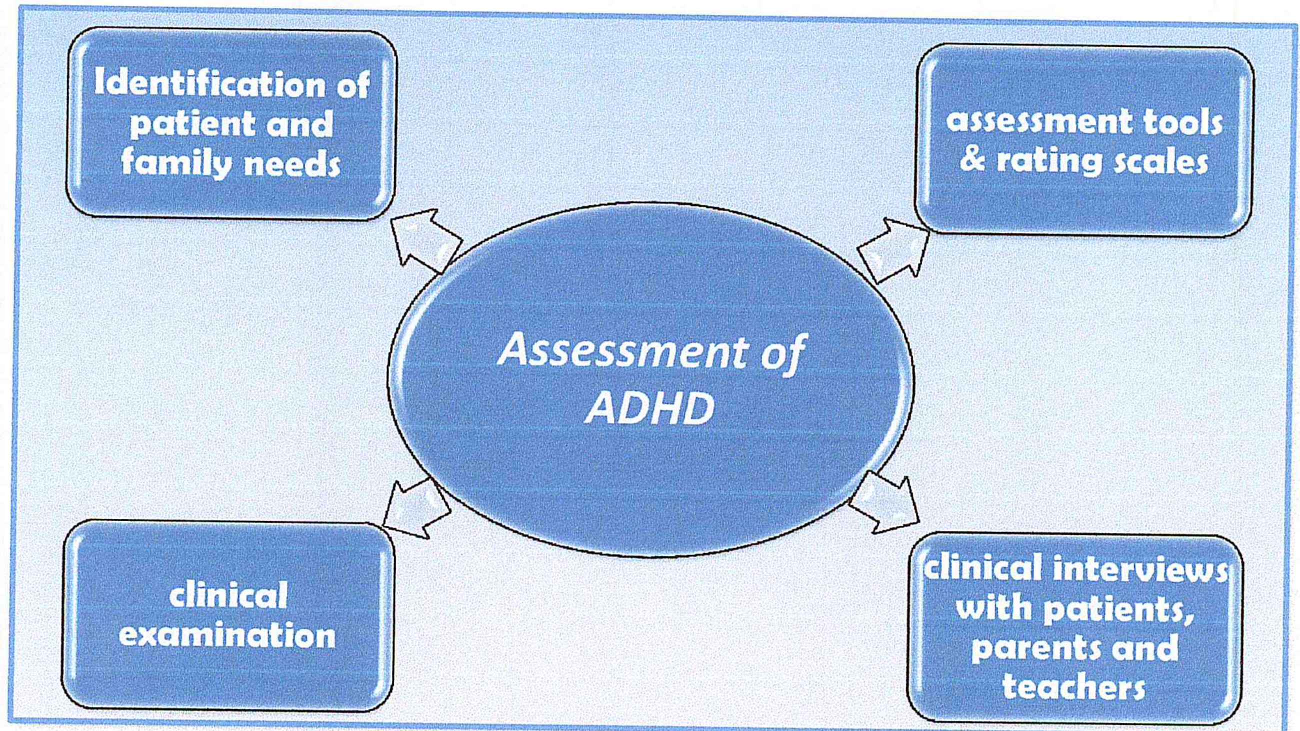


FIGURE SIX : ASSESSMENT OF ADHD

This figure represents assessment of ADHD. ADHD can be assessing in a variety of assets: Clinical interviews with patients, parents and teachers, clinical examination, Identification of the patient and family, assessment tools and rating scales.

8.7.Clinical examination

The cornerstone of an ADHD diagnosis is meeting the criteria described in the fifth edition of the Diagnostic and Statistical Manual of Mental Health Disorders (DSM-5), published by the American Psychiatric Association in 2013 (APA). The DSM is the source for diagnosing ADHD as well as other developmental and mental health disorders, and it has been

updated and revised over the years. The fifth edition (DSM-5) is the most current at this time, replacing DSM-IV (1994) and text-revised DSM-IV-TR (2000).

When evaluating for ADHD, the doctor, mental health professional, or other qualified clinician must collect, synthesize, and interpret data from multiple sources, settings, and methods to determine if there is enough evidence that DSM-5 criteria for ADHD have all been met. This cannot be done in a short office visit. An appropriate evaluation for ADHD takes substantial time and effort.

In 2011, the American Academy of Pediatrics (AAP) published guidelines for primary care doctors for the diagnosis, evaluation, and treatment of ADHD. These guidelines were revised and updated from the initial guidelines of 2000. The current guidelines (AAP, 2011) for primary care physicians state the following:

- Doctors should evaluate children four through eighteen years of age for ADHD if they present with academic or behavioral problems and symptoms of inattention, hyperactivity, or impulsivity.
- To make a diagnosis of ADHD, all DSM criteria must be met.
- Any alternative cause for the symptoms (other than ADHD) should be ruled out, and the evaluation should include, if indicated, assessment for other conditions that might coexist with ADHD (emotional, behavioral, developmental, and physical).

8.8.DSM-5 Criteria

The DSM-5 (as in previous editions) lists nine specific symptoms under the category of inattention and nine specific symptoms under the hyperactive-impulsive category. These eighteen symptoms are listed in section 1.1 (italicized under the categories of inattention and hyperactivity-impulsivity).

DSM-IV Diagnostic Criteria for Attention Deficit//Hyperactivity Disorder (APA, 1994)
1. Symptoms of inattention: Six or more of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level: ***Inattentive*** a. often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities; b. often has difficulty sustaining attention in tasks or play activities; c. often does not seem to listen when spoken to directly; d. often does not follow through on instructions and fails to finish schoolwork, or chores (not due to oppositional behavior or failure to understand instructions); e. often has difficulty organizing tasks or activities; f. often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework); g. often loses things necessary for tasks or activities (e.g. toys, school assignment); h. is often easily distracted by extraneous stimuli; i. is often forgetful in daily activities 2. Symptoms of hyperactivity-impulsivity: Six or more of the following symptoms of hyperactivity impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:
Hyperactivity a. often fidgets with hands or feet or squirms in seat; b. often leaves seat in classroom or in other situation in which remaining seated is expected. c. often runs about or climbs excessively in situations in which it is inappropriate. d. often has difficulty playing or engaging in leisure activities quietly; e. is often on the go or often acts as if "driven by a motor" f. often talks excessively.
Impulsivity g. often blurts out answers before questions have been completed; h. often has difficulty awaiting turn; i. often interrupts or intrudes on others (e.g., butts into conversations or games).
In addition to the above behavioral criteria, the student must (1) display hyperactive-impulsive or inattentive symptoms severe enough to cause impairment prior to the age of 7 years; (2) display impairment from symptoms in two or more settings (e.g., school and home); (3) must demonstrate clinically significant impairment in social or academic functioning; and (4) not have another disorder that can account for the behavioral symptoms. Source: American Psychiatric Association. (1994). Diagnostic and statistical manual of mental Disorders (4th ed.). Washington, DC: Author

TABLE 2: DSM-IV ORIGINAL DIAGNOSTIC SAMPLE

- For someone to be given a diagnosis of ADHD, the evaluator must determine that the person often presents with a significant number of symptoms in either the inattentive category or the hyperactive-impulsive category or in both categories. What constitutes a

significant number varies by age: six out of nine symptoms (in either or both categories) must occur often for children through age sixteen; only five symptoms out of the nine is the requirement for individuals seventeen years old and above.

- Several symptoms need to be present in two or more settings (for example, at both home and school).
- The symptoms are inappropriate and out of norm for the individual's developmental level (compared to others his or her age).
- The symptoms are not new. They must have been present for at least the past six months.
- Symptoms are to the degree that they interfere with or reduce the quality of the person's functioning (for example, academic, and social, work) or development.
- Other conditions or disorders (such as anxiety or depression) do not better account for these symptoms.

8.9.Clinical Interview

This is the single most important feature of the evaluation process, during which the clinician spends a significant amount of time speaking with parents to obtain the following information:

❖ The child's medical history (for example, during pregnancy and fetal development, birth, illnesses, injuries), developmental history (approximate dates of milestones reached in language, motor, self-help, learning skills), and school history

❖ The family history (of medical, psychiatric, psychological problems and diagnoses of parents and other family members—particularly looking for known or possible ADHD and coexisting conditions in parents, siblings, grandparents, or other relatives)

❖ Information about any significant family circumstances or stressors (which may be causing some of the symptoms), such as death or serious illness in the family, parental separation or divorce, and so forth

- ❖ Parents' perceptions, insights, and observations regarding, for example, the following:
- ❖ The child's difficulties in learning, behavior, health, and social relationships
- ❖ The child's strengths, interests, and motivators
- ❖ The child's responses to discipline and disciplinary techniques used in the home
- ❖ How the child responds when upset, angry, or frustrated
- ❖ How the child gets along with siblings, neighborhood children, and others
- ❖ The child's feelings (worries, fears, frustrations)

The interview also involves talking with and observing the child. The length of the interview with the child or teen, and what questions are asked will vary, of course, depending on the child's age.

An interview with the teacher is also recommended. By directly speaking with the teacher, the evaluator will be able to obtain a much better picture of the child's functioning and performance at school (academic, behavioral, social-emotional) and can hear the teacher's observations of the child compared to other students in the classroom.

Questionnaires (such as Barkley's home and school situations questionnaires) or rating forms that may have been sent to parents and teachers prior to the evaluation may be reviewed with further questions asked of parents, the child, or teachers during the interview process.

Note: It is helpful if, prior to the evaluation, parents are prepared by having the information (particularly the child's history) readily available to share.

8.10. **Rating Scales**

Rating scales are very useful in determining the degree to which various ADHD-related behaviors or symptoms are observed in different key environments (for example, home and school). Not only teachers and parents but also others who spend time with the child, such as the school counselor, special education teacher, child care provider, or other relative, can fill out rating scales.

The evaluation typically involves filling out one or more rating scales. A variety of scales and questionnaires can be used as part of the diagnostic process for obtaining information from parents and teachers. Scales that provide information specific to the DSM diagnostic criteria for ADHD should be used. These include the Vanderbilt Parent and Teacher Assessment Scales which we used during our research; Connors Parent and Teacher Rating Scales; Attention Deficit Disorders Evaluation Scale (ADDeS); Swanson, Nolan, and Pelham (SNAP-IV-C); and the ADHD Rating Scale-IV.

In some of the instruments, various situations in the home or school are described, and parents or teachers rate whether they see the child presenting difficulty in any of those situations and to what degree (mild to severe).

Teachers may be asked to rate the student in comparison to others in the class on the existence or degree of disruptive behavior, moodiness, oppositional behavior, distractibility, organization skills, forgetfulness, on-task behavior, activity, aggressiveness, ability to display self-control, paying attention, and so forth.

8.11. Observations

Directly observing the child's functioning in a variety of settings can provide helpful diagnostic information. Most useful are observations in natural settings where the child spends much of his or her time, such as school. How a child behaves and performs in an office visit is not indicative of how that same child performs and behaves in a classroom, on the playground, in the school cafeteria, or in other natural settings.

8.12. Academic and Intelligence Testing

An evaluator should have at least a general indication of a child's academic achievement level and performance, as well as a rough estimate of his or her cognitive (thinking and reasoning) ability. Some means of obtaining this information include a review of the student's report cards, standardized test scores, classroom work samples, or curriculum-

based assessment, or informal screening measures. Information can also be gleaned from the interviews with the child, teacher, and parents.

If there are indications of possible learning disabilities, a psychoeducational evaluation should be considered, which assesses the child's cognitive, processing, and academic strengths and weaknesses providing information about how the child learns and his or her educational needs.

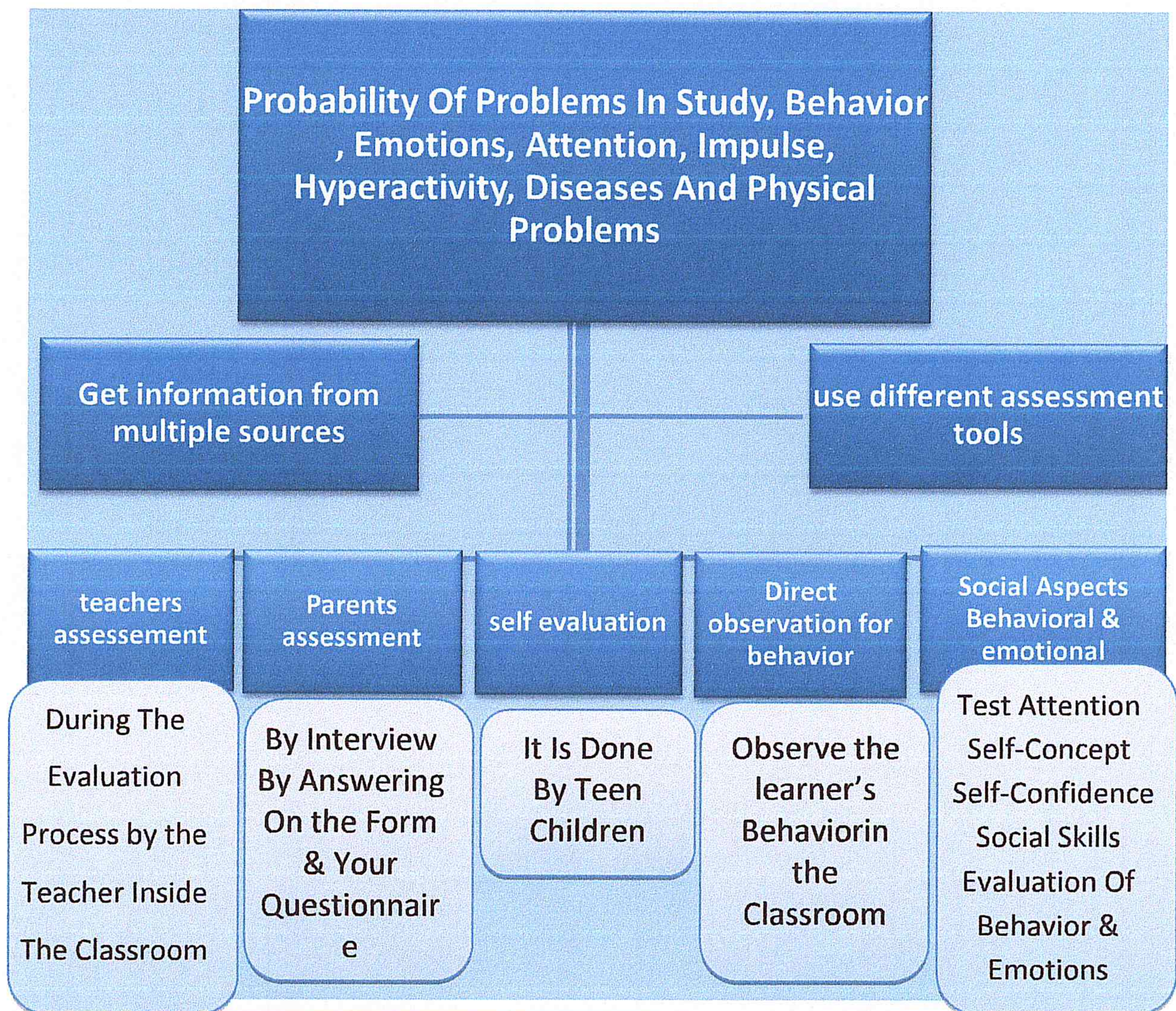


FIGURE SEVEN: DATA SOURCES AND ASSESSMENT TOOLS

This figure represents sources from which the researcher can collect data and tools through which he can assessthem.

9. ADHD and Brain Differences

The evidence from hundreds of well-designed and controlled scientific studies (metabolic, brain imaging, and genetic) indicates that in people with ADHD, there are brain differences: abnormalities in size, maturation, and levels of activity in the regions of the brain involved in executive functions and self-regulation.

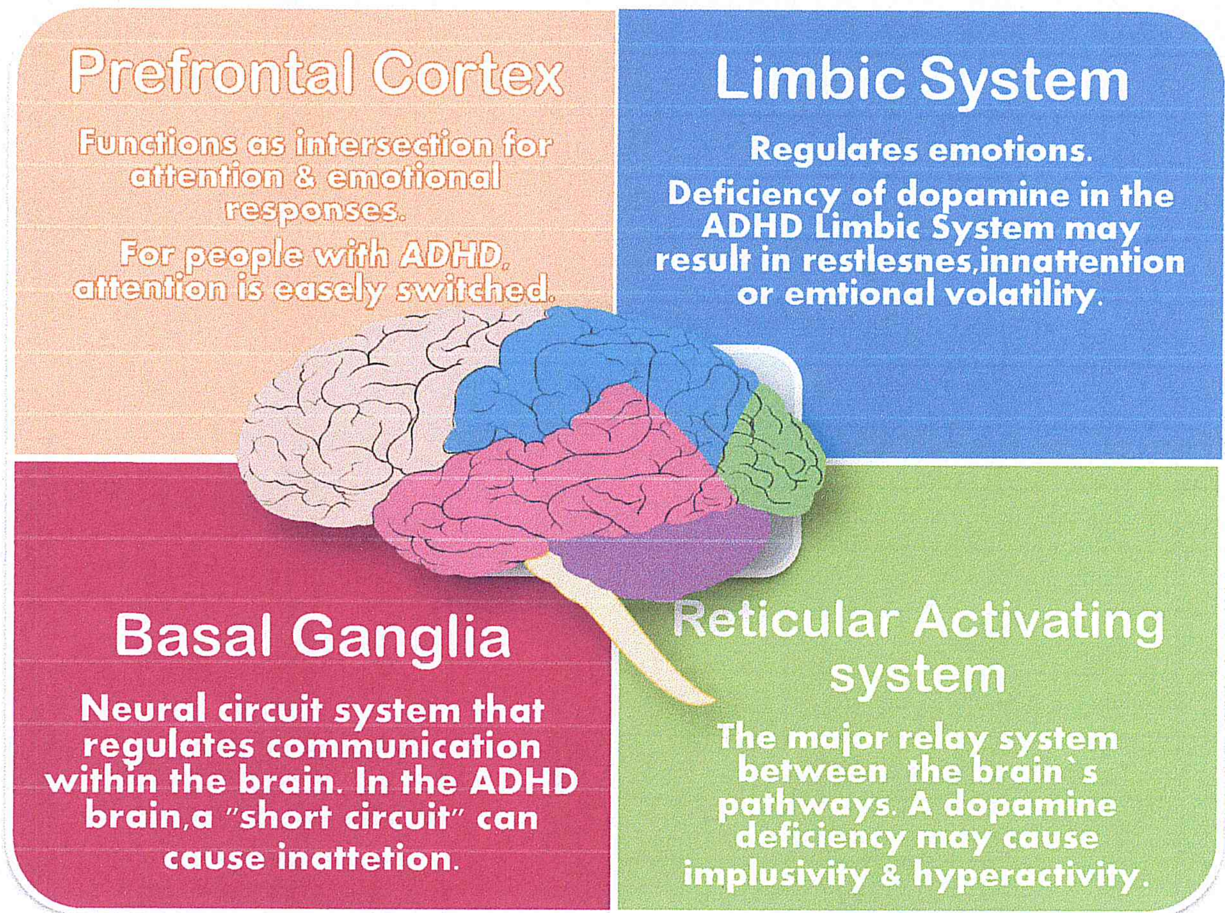


FIGURE EIGHT: ADHD DAMAGE ON THE BRAIN

This figure represents the damage done by ADHD on the learner's brain at the level of the prefrontal cortex , limbic system , basal ganglia and reticular activating system.

- **Delayed Brain Maturation and Structural Differences**

Recent research has shown that delayed maturation in specific areas of the brain plays a signifi cant part in ADHD.

According to Dr. Thomas Brown (2013)

"Individuals with ADHD have been shown to differ in the rate of maturation of specific areas of the cortex, in the thickness of cortical tissue, in characteristics of the parietal and cerebellar regions, as well as in the basal ganglia, and in the white matter tracts that connect and provide critically important communication between various regions of the brain."

Recent research has also shown that the brains of those with ADHD tend to have different patterns in functional connectivity, patterns of oscillations that allow different regions of the brain to exchange information.

Dr. Philip Shaw and other researchers at the National Institute of Mental Health used brain imaging technology to study the brain maturation of hundreds of children and teens with and without ADHD and reported their findings in 2007. They found that in youth with ADHD, the brain matures in a normal pattern, but there is approximately a three-year delay in some regions compared to other children, particularly in the frontal cortex.*(American Psychological Association, 2008; Shaw et al., 2007)*

Neuroimaging studies have found that on average, children with ADHD have about a 5 percent reduction in total volume and a 10–12 percent reduction in the size of four or five key brain regions involved in higher-order control of behavior.*(Nigg, 2006)*

- **Diminished Activity and Lower Metabolism in Certain Brain Regions**

Numerous studies measuring electrical activity, blood flow, and brain activity have found differences between those with ADHD and those without ADHD:

- Decreased activity level in certain regions of the brain (mainly the frontal region and basal ganglia). These underactivated regions are responsible for controlling activity level, impulsivity, attention, and executive functions.
- Lower metabolism of glucose (the brain's energy source) in the frontal region.
- Decreased blood flow to certain brain regions associated with ADHD.
- Less electrical activity in these key areas of the brain.

There is significant evidence that those with ADHD have a deficiency or inefficiency in brain chemicals (neurotransmitters) operating in certain brain regions associated with ADHD. The two main neurotransmitters involved in ADHD are dopamine and norepinephrine. Other brain chemicals also play a part in the disorder and are being studied.

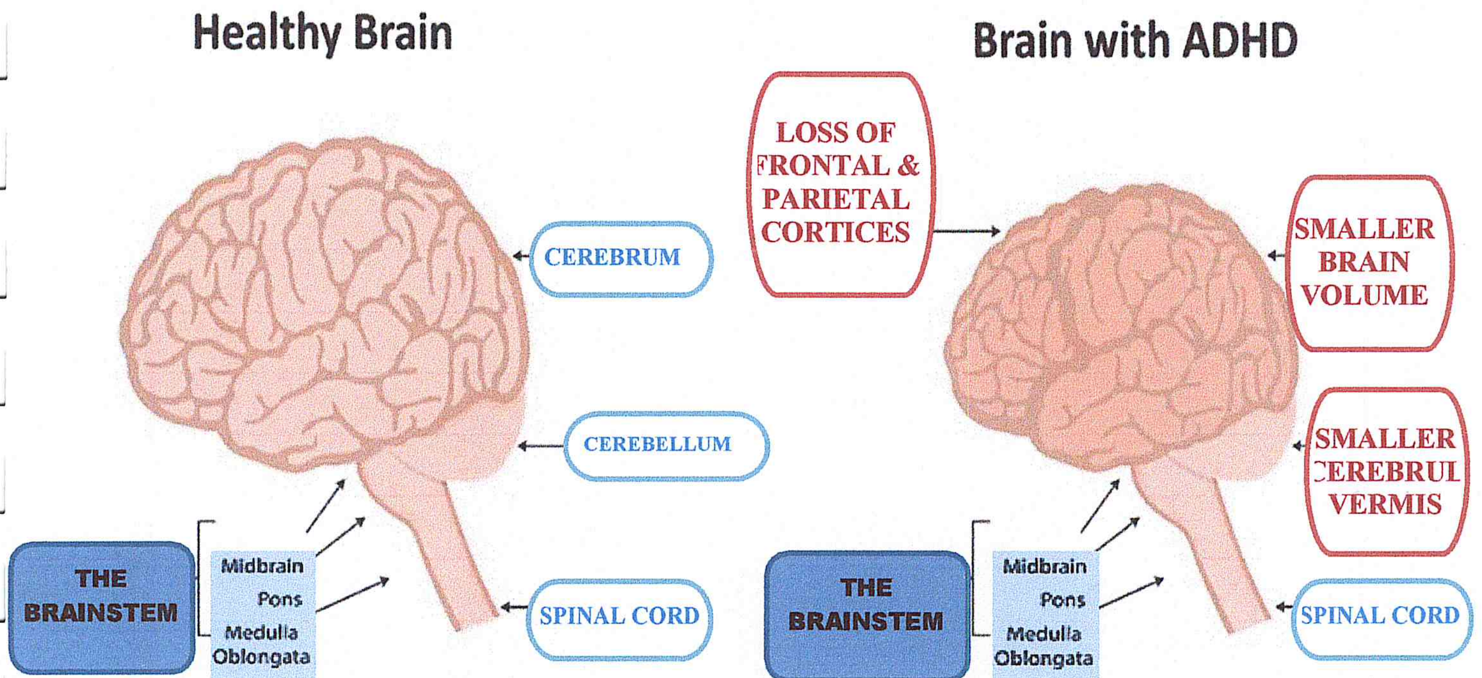


FIGURE NINE: BRAIN DIFFERENCES

This figure shows the difference between a healthy brain and a brain with ADHD. Brain with ADHD has a smaller volume and smaller cerebrulvermis and loses the frontal and parietal cortices

10. Causes of ADHD:

Dupaul and Sroner stated that:

"There is no single cause for ADHD; however, there are identified variables that may result due to a combination of factors. ADHD may be connected to several factors"

10.1. Heredity

Heredity is the most common cause of ADHD, accounting for approximately 75–80 percent of children with this disorder.

- ✓ ADHD is known to run in families, as found by numerous studies (of identical and fraternal twins, adopted children, families, and molecular genetics). For example, in studies of identical twins, if one has ADHD, there is as high as a 75–90 percent chance that the other twin will have ADHD as well.
- ✓ It is believed that a genetic predisposition to the disorder is inherited. Children with ADHD will frequently have a parent, sibling, grandparent, or other close relative with ADHD or whose history indicates they had similar problems and symptoms during childhood.
- ✓ ADHD is a complex disorder, which likely involves multiple interacting genes.
- ✓ Genetic research involving several methods have so far identified at least nine genes that link to ADHD at least three involving the regulation of dopamine levels (two dopamine receptor genes and a dopamine transporter gene). Other genes have also been identified that affect brain growth, how nerve cells migrate during development to arrive at their normal sites, and the way in which nerve cells connect to each other
- ✓ The genetic contribution to ADHD has been thought to reflect differences in certain brain structures and in brain chemistry, as well as the interaction of the two
- ✓ Research suggests that certain genes or alterations in some genes may be inherited and influence the development or maturation of certain areas of the brain or affect the regulation or efficiency of certain brain chemicals. Other researchers suggest that children who carry certain genes may be more vulnerable than other children to various environmental factors associated with ADHD symptoms.

10.2. Birth Complications, Illnesses, and Brain Injury

These are other factors that raise the risk for ADHD and may lead to its development:

- ✓ Premature birth and significantly low birth weight
- ✓ Trauma or head injury to the frontal part of the brain
- ✓ Certain illnesses that affect the brain, such as encephalitis
- ✓ Birth complications, such as toxemia

10.3. Maternal or Childhood Exposure to Certain Toxins

Certain substances the pregnant mother consumes or to which she exposes the developing fetus increase risk factors and may be a cause for ADHD in some children. This includes fetal exposure to alcohol, tobacco, and high levels of lead.

10.4. Low-birth weight or premature delivery:

According to a study in the journal Pediatrics, babies born before their due date are more likely to have ADHD when they're older.

10.5. ADHD May Be Linked to Persistent Parental Criticism

For many children with attention deficit hyperactivity disorder, symptoms appear to decrease as they age, but for some they do not. One reason may be persistent parental criticism, according to research published by the American Psychological Association.

In a three-year study of 388 children with ADHD and 127 without, as well as their family members, researchers measured changes in ADHD symptoms over that period and also measured the parents' levels of criticism and emotional involvement. Of the children with ADHD, 69 percent were male, 79 percent were white and 75 percent came from two-parent households.

Parents were asked to talk about their relationship with their child uninterrupted for five minutes. Audio recordings were rated by experts for levels of criticism (harsh, negative statements about the child, rather than the child's behavior) and emotional over-involvement (overprotective feelings toward the child). Measurements were taken on two occasions one year apart.

Only sustained parental criticism (high levels at both measurements) was associated with the continuance of ADHD symptoms in the children who had been diagnosed with ADHD.

"We cannot say, from our data, that criticism is the cause of the sustained symptoms," said lead author Erica Musser, PhD. "Interventions to reduce parental criticism could lead to a reduction in ADHD symptoms, but other efforts to improve the severe symptoms of children with ADHD could also lead to a reduction in parental criticism, creating greater well-being in the family over time."

10.6. Other Environmental Factors

- It is generally believed in the scientific community that environmental factors (for example, lack of structure in the environment, stress, diet) influence the severity of ADHD symptoms, but are not the cause of ADHD.
- "Research does not support the popularly held views that ADHD arises from excessive sugar intake, excessive television viewing, poor child management by parents, or social and environmental factors such as poverty or family chaos. Of course, many things, including these, might aggravate symptoms, especially in certain individuals. But the evidence for such individual aggravating circumstances is not strong enough to conclude that they are primary causes of ADHD".
- Of concern to many people are the unknown effects of all the chemicals in our environment and other toxins. Many are as yet not studied. It is reasonable to assume that future research may identify chemicals and other toxins that affect brain development or brain processes in children and possibly contributes to ADHD or other disorders.

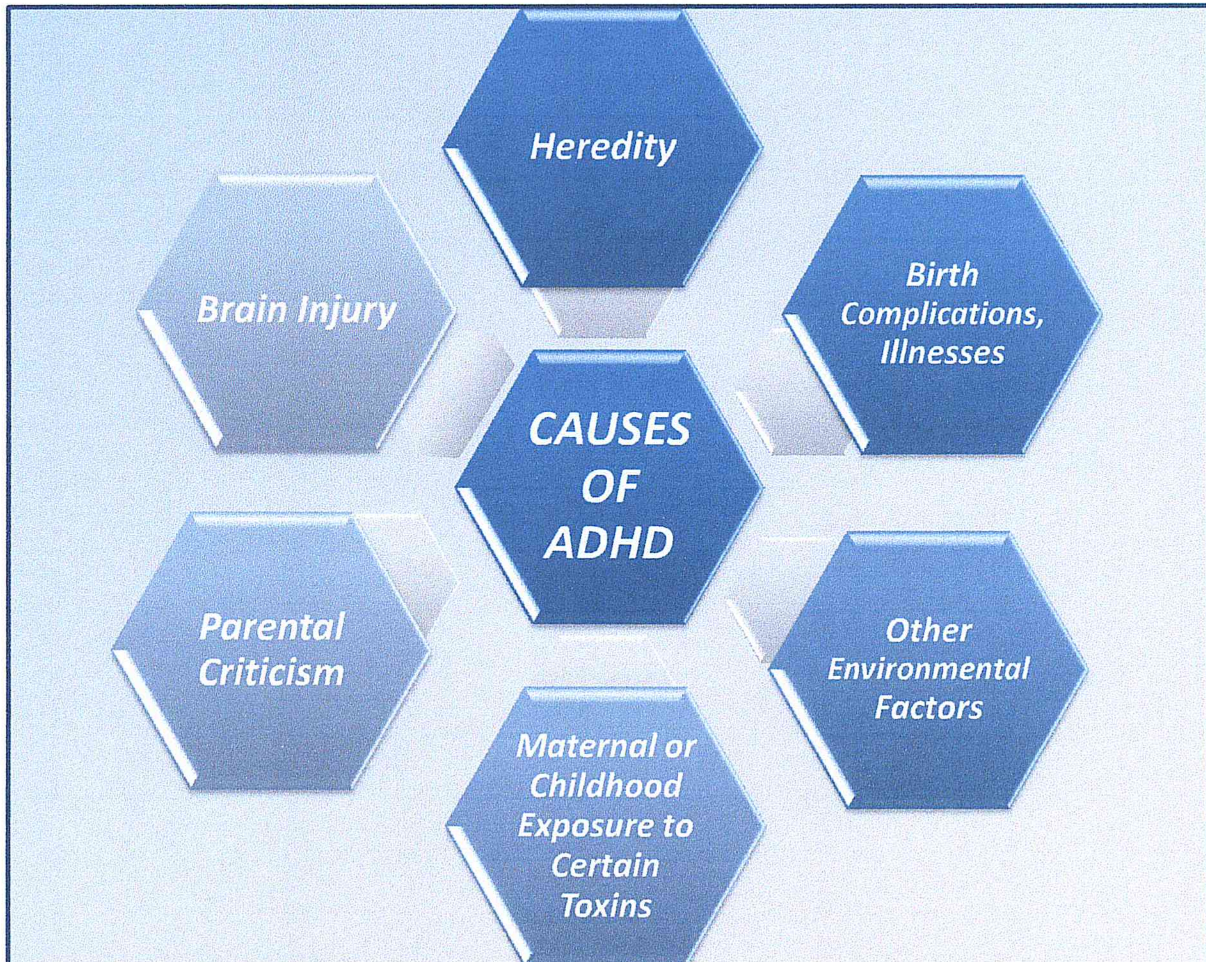


FIGURE TEN : CAUSES OF ADHD

This figure represents causes of ADHD. ADHD causes can be related to different factors: maternal or childhood exposure to certain toxins, parental criticism, brain injury, heredity, birth complications, and other environmental factors.

Conclusion

This literature review examined the topic of ADHD as it relates to students in the classroom. The major themes reviewed addressed the history of ADHD, assessment of ADHD, deficits and disorders related to ADHD, perceptions and knowledge levels about ADHD to support students with ADHD. The major issues examined were inconsistencies in the literature on these topics and the lack of teacher knowledge about ADHD as it relates to supporting students in the classroom.

The major findings of this literature review were discussed according to themes. A review of literature on the history of ADHD described the development of ADHD as a construct over time and the relationship among cultural acceptance, medical diagnosis and educational impact. A review of the literature on assessments of ADHD revealed a variety of assessments that can effectively identify and diagnose students with ADHD, but these assessments are not consistently used or regulated. Studies addressing deficits, disorders and negative outcomes related to childhood ADHD examined the many related symptoms, behaviors and consequences illustrating the urgent need for effective support for these students at an early age.

CHAPTER TWO

Research contextualization

EFFECTIVE TEACHING STRATEGIES FOR ADHD LEARNERS

2.1. Introduction

2.2. Identifying Young learners with ADHD

2.3. ADHD and How it Impacts learners

2.4 Middle School Students

2.5. ADHD and the High School Student

2.6. ADHD in the Classroom

2.7. An overall strategy for the successful instruction of children with ADHD

2.7.1. Evaluate the learners' individual needs and strengths

2.7.2. Select appropriate instructional practices

2.7.3. For children receiving special education services, integrate appropriate practices within an IEP (individualized educational programs)

2.7.4. How to implement the strategy: three components of successful programs for children with ADHD

2.8. ADHD and the Impact on the Family

2.9. Collaboration between Home and School

2.10. Conclusion

2.1. Introduction

Imagine being a teacher working in a school setting and having a student who has difficulty concentrating in class, is very hyperactive, or is often disorganized. Where does the teacher begin to help this student? What are the possible strategies that can be adapted to help this student to succeed in school? These are questions asked by many educators every day and the answer is never the same because the students are not all the same. The most important thing is to consider the individual first and then the disorder. In a classroom of diversity and multiple levels of student ability how does one best accommodate students with Attention Deficit Hyperactivity Disorder? Educators have a responsibility to help all learners reach their potential

This chapter highlights the best methods and strategies to tackle teaching young learners diagnosed with ADHD in the classroom. In particular, the discussion focuses on the teenage learners, the recognition and assessment set, and the different interventions. Precisely, the discussion targets both middle and high school institutions in Tiaret.

2.2. Identifying Young learners with ADHD

ADHD interferes with the capacity to regulate activity level, inhibit behaviour and attend to tasks in developmentally appropriate ways. The disorder can affect much more than a child's behaviours. It effects their emotions, academic performance and social skills. Children with ADHD often have other problems such as depression, anxiety, oppositional defiant disorder, language disorder or learning disabilities.

It is estimated that all teachers have in their classroom at least on child with ADHD. They can notice the symptoms of the disorder when that child show some trouble in paying attention to details, difficulty sustaining attention, problem with organization distractible. They may also notice that some of them leave their seats at inappropriate times, or talking excessively, problems in waiting their turn and interrupting others. However, these behaviours

may resemble very normal and most of all children did that on school. But, with children who have attention deficit hyperactivity disorder (ADHD), teachers need to understand how that disability interferes with their ability to learn and stay on task.

Classroom observations are used to record how often the child shows different ADHD symptoms in the classroom. It is important to compare the behaviour of a normal child with those with ADHD , teachers must evaluate their students to determine whether these children has a disability in order to create a special educational needs and related services to help promote their learning disabilities and help them succeed at school.

2.3. ADHD and How it Impacts learners

For most children with ADHD, the symptoms continue into adolescence to varying degrees. Some symptoms may diminish, but other problems may emerge or intensify during middle school and high school. For example, hyperactivity in adolescence generally manifests more as restlessness rather than as the overt hyperactivity seen in younger children.
Many preteens and teens find these years to be the most difficult and stressful for them and their families. Impulsivity can be more problematic during the teen years. As noted earlier, poor self-control and lack of inhibition in adolescence are associated with many risk factors, including significantly more than the average number of traffic violations, accidents, and teen pregnancies, as well as conduct that results in conflict with school authorities, parents, and law enforcement.

Many children with ADHD who were able to cope and stay afloat academically in elementary school find themselves overwhelmed and unable to do so with the heavy workload and high executive function demands of middle and secondary school. For some students with ADHD—particularly those with the predominantly inattentive presentation—this is the time they first receive the diagnosis of the disorder.

These are years when it is very difficult for parents and teachers to find the proper balance between teaching the child to assume responsibility for his or her own learning and behavioral choices, and intervening as we guide and support the child to success

2.4 Middle School Students

In middle school the disorder can affect students differently because they are being exposed to a new and different environment than previously experienced in the elementary school; an environment that requires the student to be more organized, and focused because they are consistently changing classes and subjects. In elementary school the student likely had one teacher who knew what the child was doing every day. This often meant the teacher knew what homework the child completed or needed to take home.

It is different for the middle school student because they are now being introduced to schedules full of changes though out the day, multiple teachers and subjects, and access to a locker to keep it clean and organized. Since a locker can hold many different 16 items it can be easier for a student with ADHD to lose homework, sports equipment or projects.

Middle school generally comes with more academic demands and personal responsibility. This transition period is often a time to update and make changes in accommodations to the child's Individual Education Plan (lEP). Counselors need to look at what strategies or interventions need to be in place when working with a student who is transitioning into middle school.

The Suicide and Mental Health Association International (2006) further explains that angry outburst and mood changes above and beyond those experienced by the average adolescent may occur during in middle school. The student may display a lack of motivation or may have trouble following through on responsibilities given in or outside of the classroom.

2.5. ADHD and the High School Student

High school can also indicate a transition with opportunity for further changes as now the student is entering another new school environment with older teens while dealing with more social interaction with peers. Robin (1999) explains that teenagers often continue to have the symptoms of ADHD that appeared in elementary or middle school, but they are expressed differently as the student ages. For some, inattention continues to be a problem whereas for others, they appear to outgrow the symptoms or learn to self-manage and improve the ability to concentrate.

"High School students with impulsive ADHD are more likely to engage in risky behaviors such as reckless driving, having unprotected sex, or using alcohol or drugs" (Robin, 1999). The ADHD Information Library (2008)

ADHD might be more likely to get into car accidents or get speeding tickets, and students diagnosed with ADHD are at greater risk of running away from home than other students and impulsive students might also be involved in arson.

Teenagers who have ADHD are at a higher risk of getting pregnant or fathering a child (Robin, 1999). Students with ADHD may also be at a greater risk of experimenting with alcohol and drugs as a form of self-medication. Robin (1999) concluded some students are likely to try to commit suicide due to combined aspects of ADHD, prescribed medications and recreational substance abuse. The risk of suicide may also increase due to a higher risk of depression or emotional stress often experienced in students with ADHD. These same students may develop low self-esteem which can lead to difficulties in developing peer relationships, and resulting in poor performance in school (Robin, 1999).

2.6. ADHD in the Classroom

Many children with ADHD show signs of the disorder before they reach school age. But it's in school, where they have trouble meeting expectations for kids in their grade, showing significant academic underachievement, poor performance and educational problems for which they must be referred for diagnosis.

When a child's behaviour in classroom or performance on schoolwork is problematic, ADHD is one of the first things that suspected. A child who seems unable to sit still, who answers in class without permission, who doesn't finish his homework, who seems to be daydreaming when the teacher gives instructions, these is well-known symptoms of ADHD. These symptoms can make it particularly hard for children with ADHD to do well in school. Children with the disorder can often verbalize rules for behaviour but have difficulty internalizing them and putting them into action. These children also struggle with delayed gratification which can add to impulsivity. They often use developmentally inappropriate ways of interacting with the world.

It is important for teachers and parents both to be aware and to know more about what ADHD looks like in the classroom, and how it might be confused with other things that could be influencing a child's behaviour. Observing kids carefully is very important when kids are too young to be able to articulate what they are feeling, and referring struggling kids for diagnosis and appropriate support can help them succeed in school and other fields of their lives.

It is also important for teachers to have the needed skills to help children manage their ADHD. However, since the majority of them are not enrolled in special education classes, their teachers will most likely be regular education teachers who might know very little about the disorder and could benefit from assistance and guidance. Keeping a keen eye on kids' behaviour in the classroom is important not just because it affects their learning and potentially, the ability of other kids in the class to learn but also because it's a window into

their social and emotional development. When kids are failing or struggling in school for an extended period of time, or acting out in frustration, without getting help, it can lead to an unexpected behaviour that gets harder and harder to break.

Here are some typical strategies for teachers to help their ADHD students succeed in school:

- Display classroom rules. Classroom rules must be very clear and concise.
- Provide clear and concise instructions for academic assignments.
- Divide complex instructions into small parts.
- Show students how to use an assignment book to keep track of their homework and daily assignments.
- Post a daily schedule and homework assignments in the same place each day. Tape a copy on the Child desk.
- Plan academic subjects for the morning hours.
- Provide regular and frequent breaks.
- Seat the child away from distractions and next to students who will be positive role models.
- Form small group settings when possible. Children with ADHD can become easily distracted in large groups.
- Find a quiet spot in the classroom (such as a place in the back of the room) where students can go to do their work away from distractions or sit them in the back, usually it is in the front where the noise is.
- Train the student with ADHD to recognize "begin work" cues.
- Create a secret signal with the child to use as a reminder when he or she is off task.
- Help the child with transitions between other classes and activities by providing clear directions and cues, such as a ten-minute warning before the transition.
- Get tutors help, tutors can help them get more work done in less time and provide constant reinforcement.

- Focus on a specific behaviour you wish to improve and reinforce it. Teachers can reinforce target behaviours by paying attention to the behaviour, praising the child, and awarding jobs and extra free time.
- Use more positive reinforcements than negative consequences.
- Give clear directions and be ready for unexpected disruptions.
- Reward target behaviours immediately and continuously.
- Use a timer to help motivate them and get their attention.

2.7. An overall strategy for the successful instruction of children with ADHD

Here are strategies that help students with ADHD focus and maintain their concentration on your lesson and their work can be beneficial to the entire class:

2.7.1. Evaluate the learners' individual needs and strengths

Teachers need todeterminethe unique educational needs and strengths of a child with ADHD in the class. They also need to work with a multidisciplinary team with the help of their parents, taking into consideration both academic and behavioural needs. They should use formal diagnostic assessments and informal classroom observations. Assessments, such as learning style inventories, can be used to determine children's strengths and enable instruction to build on their existing abilities. The settings and contexts in which challenging behaviours occur should be considered in the evaluation.

2.7.2. Select appropriate instructional practices

The teacher is going to identify which instructional practices will work with the academic and behavioural needs of the child and select good practices that fit the content and attract the child's attention.

2.7.3. For children receiving special education services, integrate appropriate practices within an IEP (individualized educational programs)

In consultation with other educators and parents, an IEP should be created to reflect annual goals and the special education-related services, along with supplementary aids and services necessary for attaining those goals. Teachers need to plan how to integrate the educational activities provided to other children in their class with those selected for ADHD child. So, it is important for teachers to keep in mind that no single educational program, practice, or setting will be best for all children, because not every case of ADHD is the same.

2.7.4. How to implement the strategy: three components of successful programs for children with ADHD

The most successful programs for children with ADHD integrate the following three components:

1.2 Academic Instruction

1.3 Behavioural Interventions

1.4 Classroom Accommodations

This following describes how to integrate a program using these three components and provides suggestions for practices that can help ADHD children in a classroom setting. It should be emphasized that many of the techniques suggested have the additional benefit of enhancing the learning of other children in the classroom and also for those who don't have ADHD.

- **Academic instructions**

The first major component of the most effective instruction for children with ADHD is effective academic instruction. Teachers can help prepare their students with ADHD to achieve by applying the principles of effective teaching when they introduce, conduct, and conclude each lesson. The discussion and techniques that follow pertain to the instructional process in general.

- **Introducing lessons:**

Using a carefully structured academic lesson, students with ADHD learn best when the teacher explains what he or she wants their students to learn in the accustomed lesson and places these skills and knowledge in the context of previous lessons. Efficient teachers preview their expectations about what students will learn and how they should behave during the lesson. Numerous teaching-related practices have been found especially useful in facilitating this process:

✓ **Provide an advance organizer:**

Summarizing the order of various activities planned help prepare students for the day's lesson quickly. For example, make sure to prepare a review of the previous lesson and follow it by new information and expect both group and independent work.

✓ **Review previous lessons:**

Re-examine several problems before describing the lesson at hand. Review information about previous lessons on this topic. For example, remind children that yesterday's lesson focused on learning how to regroup in subtraction.

✓ **Set learning expectations:**

Set an itinerary for the students about the lessons they are expected to learn. For example, explain to them that a language arts lesson will involve reading a story help them identify new vocabulary words in the story.

✓ **Set behavioural expectations:**

Give the students clear instructions on how they should behave in the classroom. For example, tell children that they may talk quietly to their neighbours as they do their seatwork or they may raise their hands to get your attention.

✓ **State needed materials:**

Establish all materials that the children will need during the lesson, rather than leaving them figure it out on their own. For example, specify that children need their journals and pencils for journal writing.

✓ **Explain additional resources:**

Tell students how to obtain help in mastering the lesson. For example, refer children to a particular page in the textbook for guidance on completing a worksheet.

✓ **Simplify instructions, choices, and scheduling:**

The clearer the expectations communicated to an ADHD student, the more likely it is that he or she will comprehend and complete them in a timely and productive manner.

- **Conducting lessons**

Teachers should keep in mind that transitions from one lesson or class to another are particularly difficult for students with ADHD. When they are prepared for transitions, these children are more likely to respond and to stay on task. In order to conduct the most productive lessons for children with ADHD, effective teachers regularly question children's understanding of the material, search for correct answers before calling on other students, and identify which students need additional assistance. The following set of strategies may assist teachers in conducting effective lessons:

✓ **Be predictable:**

Structure and consistency are very essential for children with ADHD; as many of them might not deal well with change. Basic rules and basic choices are best for these children. They need to understand clearly what is expected of them, as well as the consequences for not meeting with expectations.

✓ **Support the student's participation in the classroom:**

Provide ADHD students with private, discreet hints to stay on task and warn them beforehand that they will be called upon shortly. Avoid the use of sarcasm and criticism as well as bringing attention to differences between ADHD students and their classmates.

✓ **Use audio-visual materials:** Present academic lessonsusing a variety of audio-visual materials. For example, use an overhead projector to demonstrate how to solve an addition problem requiring regrouping. The students can work on the problem at their desks while you entertain different solutions on the projector screen.

- ✓ **Check student performance:**

Question individual students to state, in their own words, how the main character felt at the end of the story in order to assess their mastery of the lesson and demonstrate how they arrived at the answer to a problem. For example, you can ask students doing exercises (i.e., lessons completed by students at their desks in the classroom).

- ✓ **Ask probing questions:**

Probe for the correct answer after allowing a child sufficient time. Count at least 15 seconds before giving the answer or calling on another student. Ask follow-up questions that give children an opportunity to indicate what they know.

- ✓ **Perform on-going student evaluation:**

Identify students who need additional support. Watch for cues of lack of comprehension, such as daydreaming or visual or verbal gestures of frustration. Give these children extra explanations, or ask another student to serve as a peer tutor for the lesson.

- ✓ **Help students focus:**Employpractices that can either be directed at individual children or at the entire class, such as reminding them to keep working and to focus on their assigned task. For example, you can provide follow-up directions or assign learning partners.
- ✓ **Follow-up directions:** Teachers of ADHD children can guide them with follow-up directions:

Oral directions: After giving directions to the class as a whole, provide additional oral ones. For example, ask the child if he or she understood the directions and repeat them together.

Written directions: writing additional information on the chalkboard would help the student remember the previous task and enhance their performance in future activities

- ✓ **Lower noise level:** Provide corrective feedback andmonitor the noise level in the classroom. If the noise level exceeds the level appropriate for the type of lesson, remind students about the behavioural rules.

✓ **Divide work into smaller units:** Break down assignments into smaller, less complex tasks. For example, allow students to complete five math problems before presenting them with the remaining five problems.

✓ **Use cooperative learning strategies:** Give the students small group work to maximize their own and each other's learning. With collaboration they can share ideas and discuss opinions.

- **Concluding lessons**

Effective teachers conclude their lessons by telling in advanced warning that the lesson is about to end, checking the completed assignments of some ADHD students, and advising them in how to begin preparing for the next activity.

✓ **Provide advance warnings:**

Tell them that the lesson is about to en or how much time is left. You may also want to tell students at the beginning of the lesson how much time they will have to complete their work.

✓ **Check assignments:**

In order to get a sense of how ready the class was during the lesson,check completed assignments for at least some students and review what they have learned during the lesson.

✓ **Preview the next lesson:**

Introduce them for the next lesson in a new way . For example, inform students that they need to put away their textbooks and come to the front of the room for a large-group spelling lesson.

- **Behavioural intervention**

The second major component of effective instruction for children with ADHD involves the use of behavioural interventions. Exhibiting behaviour that seems of younger

children, ADHD children often have difficulty learning how to control their impulsiveness and hyperactivity. They may have problems in making friendships and may have difficulty thinking through the social consequences of their actions.

The best technique to aid students to help students display the behaviours that are most useful to their own learning and that of their classmates consists of behavioural interventions. The technique shouldn't be viewed as an opportunity for punishment but as an opportunity for teaching in the most efficient manner. Well-managed classrooms prevent many disciplinary problems and provide an environment that is most favourable for learning. Less time is available for assisting other students, if a teacher spends more time interacting with students, whose behaviours are not focused on the lesson being presented.

✓ Effective behavioural intervention techniques

In order to help students learn how to control their behaviour, good teachers use a number of behavioural intervention techniques. The most important and effective one from these techniques is the verbal reinforcement. The most common form of verbal reinforcement is praise given to a student when he or she begins and completes an activity or exhibits a particular desired behaviour. Encouragement such as "good job, helps the child act appropriately and inspire them in a way that increases their level of creativity which would lift their spirit and stimulates them both mentally and spiritually. Teachers should praise their ADHD students frequently before doing the work given and not after to encourage them to do better. If they praise them after doing the job, they will not get the same result. The following strategies provide some guidance regarding the use of praise:

✓ **Define the appropriate behaviour while giving praise:**

Praise should be specific for the positive behaviour displayed by the student: The comments should focus on what the student did right and should include exactly what part(s) of the student's behaviour was desirable and also praising them for not disturbing the class, for example, a teacher should praise him or her for quietly completing a math lesson on time.

✓ **Be consistent and sincere with praise:**

Consistency among teachers with respect to desired behaviour is important in order to avoid confusion on the part of ADHD students. Appropriate behaviour should receive consistent praise. Similarly, the insincerity will not go without notice, and this will make praise less effective on students.

It is important to keep in mind that the most effective teachers focus their behavioural intervention strategies on praise rather than on punishment. Negative consequences may temporarily change behaviour, but they rarely change attitudes and may actually increase the frequency and intensity of inappropriate behaviour by rewarding misbehaving students with attention. Moreover, punishment may only teach children what not to do; it does not provide children with the skills that they need to do what is expected. Positive reinforcement produces the changes in attitudes that will shape a student's behaviour over the long term.

✓ **Activity reinforcement:**

when encouraged to perform a less desirable behaviour before a preferred one, students receive activity reinforcement.

✓ **Hurdle helping:**

in order to prevent student's frustration with an assignmentTeachers can offer encouragement, support, and assistance. This help can take many forms, from enlisting a peer for support to provide with additional materials or information.

✓ **Parent conferences:** Parents have a crucial role in the education of students, and this action may be particularly true for those with ADHD. As such, parents must be involved as partners in planning for the student's success. This partnership entails; including parental input in behavioural intervention strategies, maintaining consistent communication between parents and teachers, and joining forces in monitoring the student's progress.

- **Classroom accommodation**

The third component of a strategy for effectively educating children with ADHD involves physical classroom accommodations. Those children often have difficulty accommodating to the structured environment of a classroom, recognizing what is important, and focusing on their assigned work. They are easily distracted by nearby activities in the classroom or by other children. Consequently, many of them benefit from accommodations that lessen distractions in the classroom environment and help them to stay on task and learn. Some accommodations within the physical and learning environments of the classroom can be quite useful for children with the disorder.

✓ **Special classroom setting arrangement for ADHD students**

One of the most common accommodations that can be made to the physical environment of the classroom involves determining where a child with ADHD will sit.

Three special seating assignments may be especially useful:

✓ **Seat the child near the teacher:**

Assign the child a seat near your desk or the front of the room. This seating assignment provides opportunities for you to monitor and reinforce the child's on-task behaviour.

✓ **Seat the child near a student role model:**

Assign the child a seat near a student role model. This seat arrangement provides opportunity for children to work cooperatively and to learn from their peers in the class.

✓ **Provide low-distraction work areas:** As space permits, teachers should make available a quiet, distraction-free room or area for quiet study time and test taking. Students should be directed to this room or area privately and discreetly in order to avoid the appearance of punishment.

✓ **Instructional tools and the physical learning environment:**

Teachers who possess skills use special instructional tools and gadgets to reshape the classroom learning environment and accommodate the special needs of their students with ADHD. They also monitor the physical environment, keeping in mind the needs of these children.

The following tools and techniques may be helpful:

✓ **Pointers:** Teach the child to use a pointer to help visually track written words on a page. For example, provide the child with a bookmark to help him or her follow along when students are taking turns reading aloud.

✓ **Timer:** Set a timer to indicate to children how much time remains in the lesson and place the timer at the front of the classroom , note the time at which the lesson is starting and the time at which it will end.; the children can check the timer to see how much time remains. Interim prompts can be used as well. For instance, children can monitor their own progress during a 30-minute lesson if the timer is set for 10 minutes three times.

✓ **Music:** Playing different types of music on a tape recorder communicates to children what level of activity is appropriate for a particular lesson. Chords on a piano could be used to

avert children that they are too noisy. For example, play quiet classical music for quiet activities done independently and jazz for active group activities.

✓ **Computer games for reading comprehension**: Schedule computer time for the child to have drill-and-practice with sight vocabulary words.

✓ **Color-coded letters:** Colour code different letters in hard-to-spell words

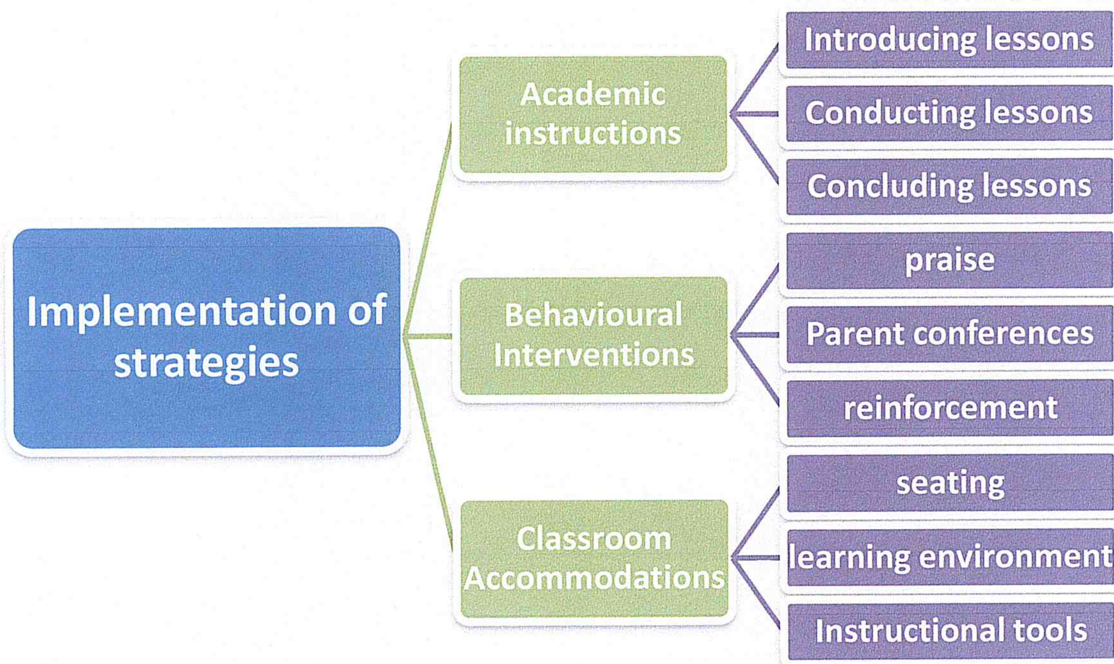


FIGURE ELEVEN: Teaching Strategies

Successful implementation strategies to engage learners diagnosed with ADHD

2.8. ADHD and the Impact on the Family

It is important to be aware of the challenges that exist in the home when one or more children (and possibly a parent) have ADHD, as this disorder significantly affects the entire family. Unfortunately, teachers are generally unaware of or underestimate the struggles that families face. Typically, in homes of children with ADHD, there is a much higher degree of

stress than the average family experiences, along with depression or other pathology in one or more family members.

Living with a child who has ADHD often takes a heavy toll on marriages. It is common for parents to be in different stages of a "grieving process" about having a child who struggles compared to other children. For example, one parent may be in the denial or anger stage, and the other parent has progressed to acceptance and is eager to begin a course of intervention for the child. It is common for parents to disagree about treatment, discipline, management, structure, and other issues. There are generally major issues surrounding the battle with homework as well as with morning and evening routines (getting ready for school and bedtime).

Parents may blame one another for the child's problems or be highly critical of one another in their parenting role. This discord causes a great deal of marital stress. Often it is the mother who must cope with the brunt of the issues throughout the day, which is physically and emotionally exhausting. As any parent of a toddler knows, having a child who needs constant supervision and monitoring is very time-consuming and interferes with the ability to get things done as planned (for example, housework and other chores). In single-parent homes, it is even more challenging.

Parents of children who have ADHD are constantly faced with needing to defend their parenting choices as well as their child. They must listen to negative press about this disorder and reject popular opinion in order to provide their child with necessary interventions and treatment. Parents must deal with criticism and "well-meaning" advice from relatives, friends, and acquaintances regarding how they should discipline and parent their child. They may feel unsupported by extended family and also experience social isolation. This causes a lot of parental self-doubt and adds to the stress they are already living with day in and day out.

The family must frequently deal with social issues, such as the exclusion of the child from out of-school activities. It is painful when your child is not invited to birthday parties or has difficulty finding someone to play with and keeping friends. Siblings are often resentful or even jealous of the central role their ADHD sibling plays in the family's schedule, routines, and activities, as well as the extra time and special treatment this child receives. In addition, siblings feel hurt and embarrassed when their brother or sister has acquired a negative reputation in the neighborhood and school.

Parents of children with ADHD have a much higher degree of responsibility than is typical for other parents in working with the school, communicating closely with teachers, and advocating for the needs of their child. There is also the financial impact of treatment costs that may or may not be covered by insurance. All of these issues can be stressful for families.

It is likely that more than one family member (a parent or sibling) also has ADHD. In many cases, other family members who have ADHD were never diagnosed and have been struggling to cope with their own difficulties without proper treatment and support. That is why the clinicians who specialize in treating children with ADHD say it is important to view treatment in the context of the family. Learning about the family (for example, the ways the members communicate and their disciplinary practices) helps in designing a treatment plan that is most effective for the child.

Commonly a parent recognizes for the fi rst time that he or she has been suffering with undiagnosed ADHD for years when a son or daughter receives an ADHD diagnosis. This realization can result in a positive change in the family dynamics.

Without question, families of children with ADHD need support and understanding. Fortunately, there are many supports available and ways to help

2.9. Collaboration between Home and School

An important consideration for enhancing the effectiveness of school Interventions is the relationship between home and school. In cases where both teacher and parents are knowledgeable about ADHD, have realistic goals, and are motivated to work with ADHD, effective collaborations develop easily. In other cases home-school conflicts can be significant and ultimately compromise the student's progress. Parents may blame their child's difficulties on the school or may feel that the school system is failing to adequately address their child's needs. Teachers may believe that family problems are causing the child's symptoms or that medication should be considered in lieu of accommodations in the classroom. During recent years, conflict between home and school has escalated as demonstrated by increased involvement of child advocates and the legal system to sort out educational placement issues. Some of the conflict is due to misinformation and can be addressed through education about ADHD.

Parents and teachers need to dispel notions of blame and work toward improving the fit between the child's characteristics and the environments at school and at home. A behavioral consultant/clinician with expertise in ADHD and behavior modification can help mediate these problems by providing information regarding the nature of ADHD and its causes as well as information regarding the role of behavioral interventions (including both their strengths and limitations) in the treatment of ADHD. The need to establish interventions in all settings in which problems occur should be stressed to parents and school personnel since changes in one setting rarely generalize without intervention to other settings. Many collaborative teams within schools routinely include parents so that complementary programs can be designed at school and at home(Burcham et al., 1993; Colton & Sheridan, 1998; Kotkin, 1995)

Recently, Atkins etal (2003) found that an intensive parent outreach effort in urban areas involving an extensive telephone-based engagement interview, community consultants and staff clinicians as members of school-based teams, and a flexible service delivery model including family and classroom services, resulted in a much higher rate of family participation than is typical.

To develop effective collaborations, the clinician should meet weekly or biweekly with the teacher and/or parent to provide instruction and coaching in behavioral management as well as continual monitoring and evaluation of the program. Older children should be included during some of these meetings to help set goals and determine appropriate and valuable rewards since involving the children in this way often enhances their motivation to participate and be successful in the program. For example, written contracts for a daily report card system (described in a later section) which indicate the different roles of teacher, parent and child (e.g., the teacher's role in monitoring child behavior, the parent's role in dispensing rewards, and the child's role in engaging in appropriate target behaviors) is a concrete method of ensuring consistent adherence to the plan over time. It is also important that parents understand that implementing behavior modification programs in the classroom is not an easy task for most teachers. We routinely encourage parents to be actively involved in their child's educational program, follow-through, and use positive reinforcement liberally with their child's teacher, just as the clinician should use positive reinforcement liberally with the parent and teacher.

2.10. Conclusion

Addressing the needs of students with ADHD is complex and requires teachers to assess not only the student's unique needs but also the demands of the environment. Prevention strategies that address environmental variables should always be the first consideration when designing interventions for students with ADHD. Most successful interventions are a combination of classroom supports and strategies taught directly to students to help them become more academically and behaviourally successful.

This guide has outlined a series of instructional strategies that have proven to be successful in educating children with ADHD. However, it should be emphasized again that these techniques are also highly useful for all children. The three main components of a successful strategy for educating children with ADHD are academic instruction, behavioural interventions, and classroom accommodations. By incorporating techniques from these three areas into their everyday instructional and classroom management practices, teachers will be empowered to improve both the academic performance and the behaviour of their students with ADHD. By following that, they will create an enhanced learning environment for all students.

When teachers are more aware of the struggles of a student with ADHD; they scan better help the students in the classroom and establish a calm structured learning environment. School personal have an important role to play in enabling students to have a successful school career.

CHAPTER THREE

DATA COLLECTION, LAYOUT AND INTERPRETATION

Introduction

III.1 Research Design

III.2 Participants

III.3 Research Tools

III.3.1 Learners' Inventory

III.3.2 Teachers' Questionnaire

III.3.3 Classroom Observation

III.4 Data Analysis

III.4.1 Learners Inventory

III.4.2 Teachers' questionnaire

III.4.3 Classroom Observation

III. 5 Data Discussion and Interpretation

III.6 Limitations of the Study

Conclusion

Introduction

Field Investigation

This chapter is devoted to the interpretation and discussion of the results we obtained from the analysis of data in the previous chapter in order to check the validity of our hypothesis with an attempt to answer the research questions and test whether the results of the analyses confirm the hypothesis or not. The present chapter will also provide some suggestions and pedagogical recommendations for teachers and to help them use these techniques when dealing with an ADHD case, in addition to the limitation of the study.

III.1. Research Design

For the study, descriptive designs with a mixed method were employed. It means both qualitative and quantitative methods of data analysis were employed. The researcher used the following procedures to analyze the collected data. First, the data obtained from the teachers via interviews, from the students through questionnaire.

III.2. The sample

The fifty (50) students who responded to the questionnaire were chosen among the total number of both high school and middle school student's population (200) in Tiaret. The Learners selection of such sample was based on the consideration that teenage students that might have already been exposed to the ADHD symptoms and identified by the interaction of their teachers in the previous years so, their teachers focus more on student's behavior at this level since they are considered as young learners

III.3. Participants

This study was carried at Belhouari Mohamed and benabdelkrim Mohamed and different high schools In Tiaret, from the population of the students and teachers, 40 students from all levels and 10 teachers were selected to participate in this investigation. For the sake of the

generalizability of the research outcomes, the probability sampling (randomness) has been chosen, targeting all eligible members to be selected. Though time-consuming, this technique is, according to the researcher, more convenient to the type of issue under investigation.

The number of the students was determined taking into account their level, as showed in the table below:

Level	Number	
	Males	**Females**
3rd year highschool students	4	2
2nd year highschool students	4	3
1st year high school students	6	3
2nd year middle school	4	3
1st year middle school	6	5
Total	**24**	**16**

Table I.2.2*The Number of Students*

It is worth mentioning that the number of participants is gradually narrowed and carefully selected.

The number of teachers, on the other hand, depends on their availability; every teacher whom the researcher could reach is a participant. The total number is 10 (both permanent and contract teachers), regardless their gender

III.4. Research Tools

The instruments for this research include a Conner's questionnaire handed to teachers to identify their learners who might have ADHD problems in class and mainly we have used

DMS IV Connors check list, an inventory handed to students to investigate their learning issues, in addition to the use of these tools, classroom observation was done to observe learners with ADHD symptoms and the appropriate use of the interventions and different strategies in real classroom setting.

III.4.1. Teachers' Questionnaire

The questionnaire is "Connors Teacher Questionnaire" it is a two sided in an A3 format. It contains 28 questions split up into two sections. The first section is devoted to personal and professional data; it contains 08 close-ended questions. By answering them, the respondents' other replies can be put into greater context. The second section tackles teacher's experience and their personal interaction with their learners, it contains 28 questions close-ended addressing the teachers' relationship with his learners and the noted overall attitude in classroom, 03 of them necessitate justification while the rest are. The third section is about issues identification and resolution; it contains 04 questions, 03 of which are open-ended while the fourth is close-ended (*cf.* appendix B). In this research the purpose of the questionnaire was to discover the signs of ADHD in students.

III.4.2. Learners' Inventory:

> *"The questionnaire is a widely used and useful instrument for collecting survey information, providing structured often numerical data, being able to be administered without the presence of the researcher"* (Wilson and Mclean in Cohen et. Al., 2007:317).

The inventory is the ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist, it contains 18 statements to which students are required to answer never, rarely, sometimes, often, and very often. These statements are divided into two main sections, each section is provided for one type of ADHD. The first section is provided for the first type of ADHD which is inattentive. The second type is addressed for the second type of ADHD which is impulsive or hyperactive type. Learners who had positive answers on both sections of

statements were diagnosed as learners with third type of ADHD which is combined type.

III.4.3. Classroom Observation

This tool is used to have a direct contact with the teachers and the learners in real classroom setting and to assess their use of the typical teaching strategies and the classroom management, at the same time analyzing the students with deficiency problems. The Weekly ADHD Monitoring Form of observation is used, By using this form, researcher will be able to carefully track how the learner is doing in class, and will be alerted to when any adjustment in learning, The ADHD Monitoring System provides an easy and systematic way to monitor how a learner with ADHD is doing each week at school in several important areas. By using this system researcher will be alerted to difficulties that may develop so that adjustments to your child' treatment can be made in a timely manner.

Questions 1-12 deal specifically with symptoms of ADHD. Items 1-6 ask for teacher ratings of hyperactive/impulsive symptoms and items 7-12 provide information on inattentive symptoms. For children without ADHD, the vast majority of the ratings on these items will be either 0 or 1. For a child with ADHD whose symptoms are being managed effectively via medication or some other means would also expect to see a majority of 0's and 1's being circled. Items 13-15 provide a simple screening for behavioral, social, or emotional difficulties. In addition to seeing mostly low scores for items 1-12, you want to see high scores (i.e. 3's or 4's) for these items. If your child receives low scores (i.e. 0's or 1's) on any or all of these items, you will want to contact the teacher to obtain more detailed information about the difficulties that were observed. (*cf.* appendix C)

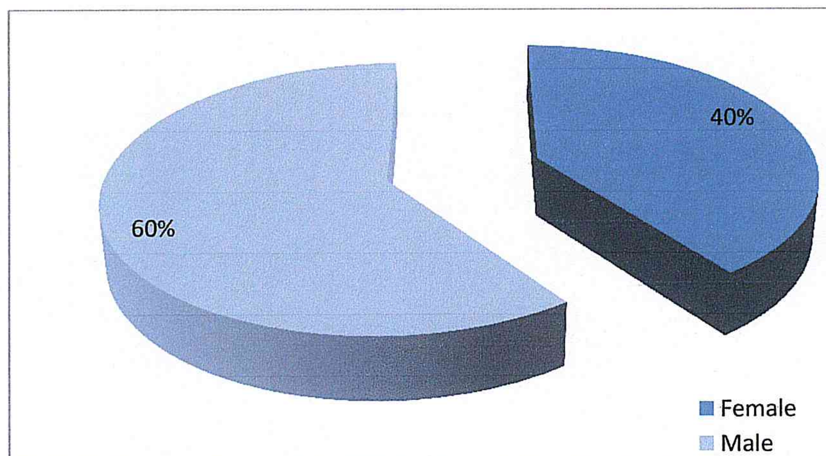
III.5. Data Analysis

The captured data from both qualitative and quantitative research tools are presented, analyzed and interpreted in a consistent manner .This research was conducted by a questionnaire for pupils and teachers in order to collect logical, realistic and suitable information and that reflect their views. The questions through which we collected the data were designed out of close-ended, secondly; we chose to observe in classroom to see what are the possible challenges that can face both teachers and learners and deal with it. For the sake of selecting the different types of ADHD from the inattentive and the easily distracted one, to impulsive/hyperactive and excessive talking and moving. to the combined type that bring along the symptoms of the two types

III.5.1. Analysis of the student's inventory scale

Section 1: personal data

Gender



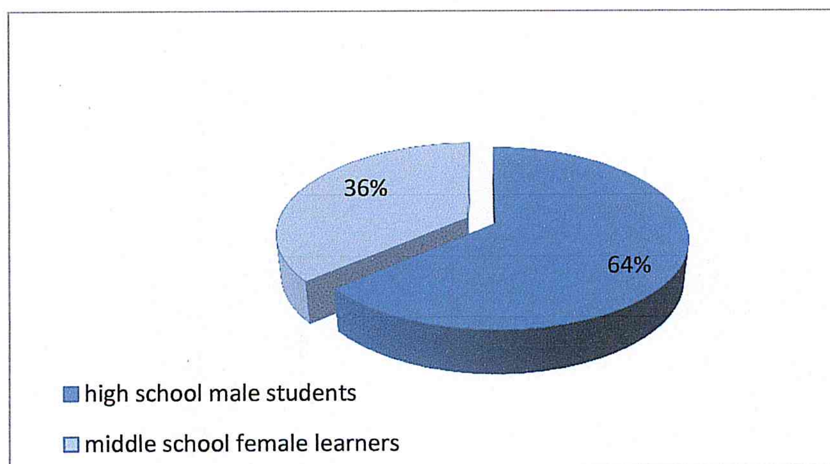
Graph 1: student's Gender

Option	R	%
Female	16	40
Male	24	60
Total	40	100

Table 1: student's Gender

As shown in the previous table, we notice that most of the sample respondents are males (**24**) which mean about two times the number of females (**16**).

-Age Distribution



Graph 2: Age Distribution of the diagnosed learners

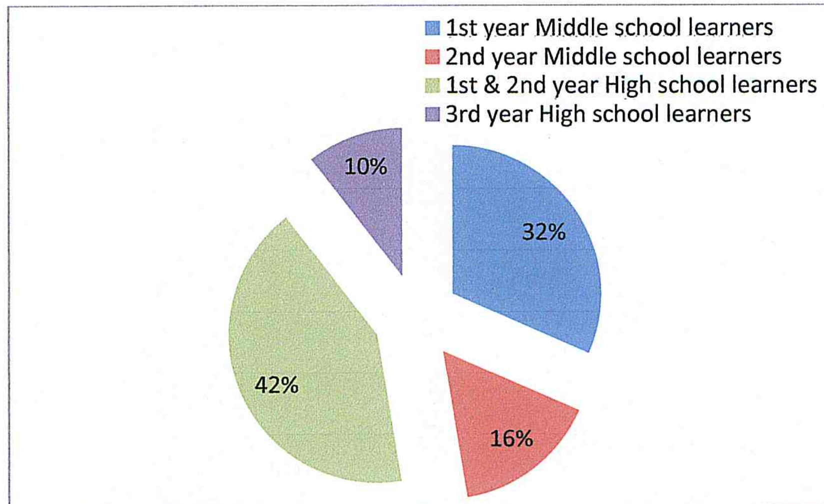
	Age	R	%
Middle school learners	**12-15**	**18**	**64%**
High school learners	**16-18**	**22**	**36%**
	total	**40**	**100%**

Table 2: Age Distribution of the diagnosed learners

Results show in table above the Age distribution of both middle and high school ADHD young learners. It is between 12 to 15 years old; with percentage of 64%. Then, respondents from 16 to 18 years represent 36% of the sample.

II.2. Section 2: inattentive type symptoms

-Learners' inattentive type analysis



Graph 3: Middle And High School Inattentiveness Rating

Middle school learners	Male	Female
1st year learners	6	5
2nd year learners	3	3

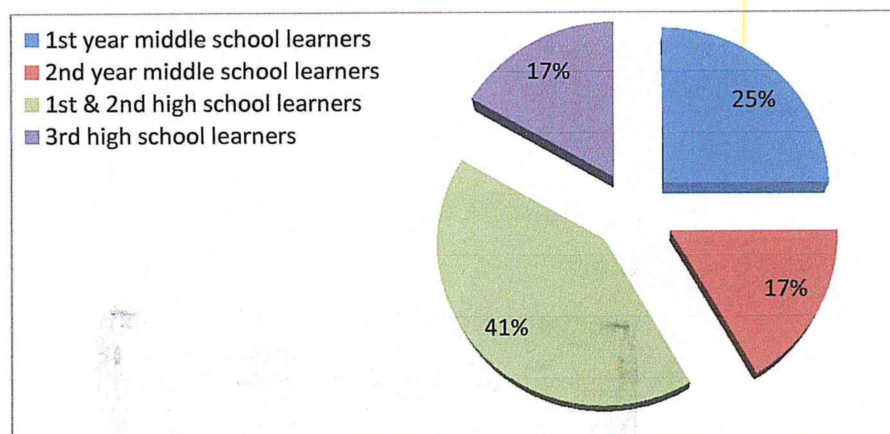
High school learners	Male	Female
1st and 2nd year learners	8	3
3rd year learners	2	1

Table 3: High and Middle school learners identified with attention deficency

From the results that has been collected from the investigation process, it has been shown above, one can notice that the highest percentage of 1st and 2nd high school students (42%) claims that they might face understanding issues during classroom sessions. whereas, (32%) said that they have difficulties wrapping up the tasks. Some others (16%) mentioned that they encounter understanding problems. The least percentage (10%) of respondents shows that they don't have any trouble when it comes to sustain attention like understanding the details of the project or daydreaming.

III.2.1. Section 3: hyperactive/impulsive and combined type symptoms

Learners' hyperactivity/impulsivity type analysis



Graph 4: Middle and High School hyperactivity/impulsivity Rating

Middle school learners	Male	Female
1st year learners	6	5
2nd year learners	4	3

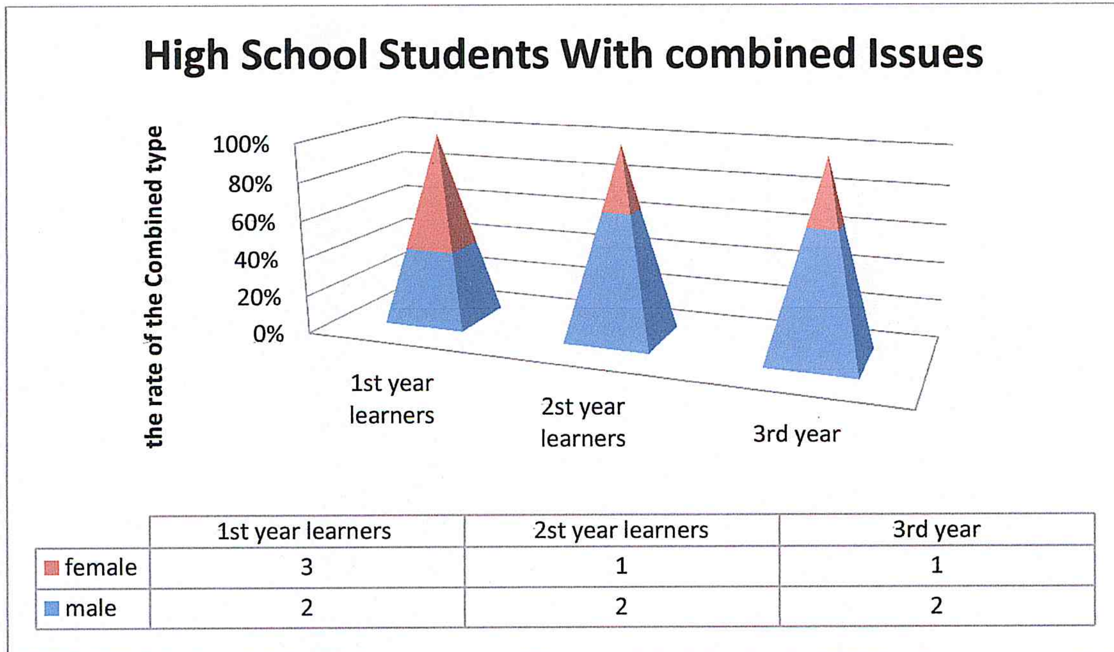
High school learners	Male	Female
1st & 2nd year learners	10	6
3rd year learners	4	2

Table 4: High and Middle school learners identified with hyperactivity/impulsivity deficiency

Results above shown that (41%) of the 1st and 2nd year high school respondents have shown impulsivity/ hyperactivity problems during classroom sessions, where the teacher find a hard time managing the classroom environment and conducting the lesson, while, only 25% of 1st year middle school learners have hyperactivity problems symptoms. then, second year learners, 26% of male were hyperactive while 16 % of second year females shown impulsiveness symptoms.

-Combined type symptoms

High school Learners' combined type analysis



	1st year learners	2st year learners	3rd year
female	3	1	1
male	2	2	2

Graph 5: High School hyperactivity/impulsivity rating scale

The figure diagnoses the meeting criteria of both inattentive and impulsive type where it starts a sequel of mental and behavioral chain reaction that triggers the existence of the third type of combined. The male are the most affected students where two males of each level were most troublesome makers in the whole class. Female were the minority of the combined type diagnosed learners have shown different behavioral pattern than males.

III.5.2. Teachers' questionnaire

Section I: Personal and Professional Information

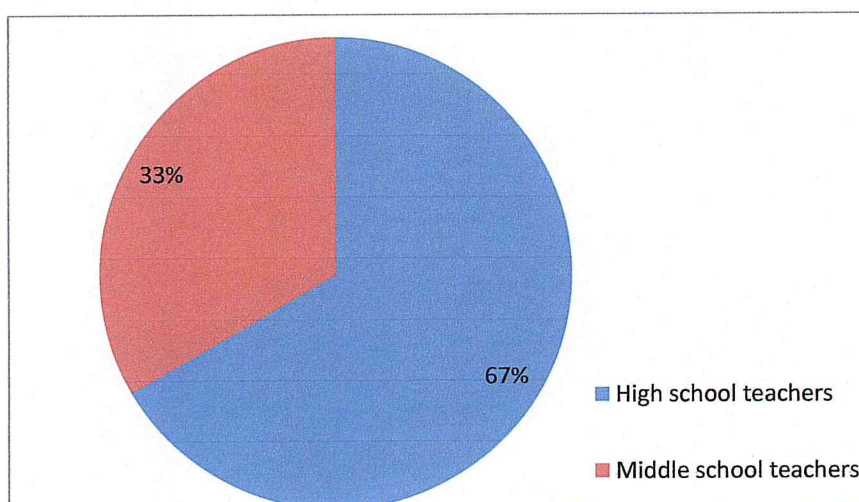
- Item01: What is your gender?

Gender	Informants	
	Number	Percentage
Male	04	27%
Female	11	73%
Total	**15**	**100%**

***Table III.4.2.1** Teachers' Gender*

The initial number of participants was 40, depending on their availability and acceptance to be part of the study. After collecting the questionnaire, it turned up that the number was 30, only 15 copies were not returned. As the table shows, 73% of the teachers are females and 27% are males.

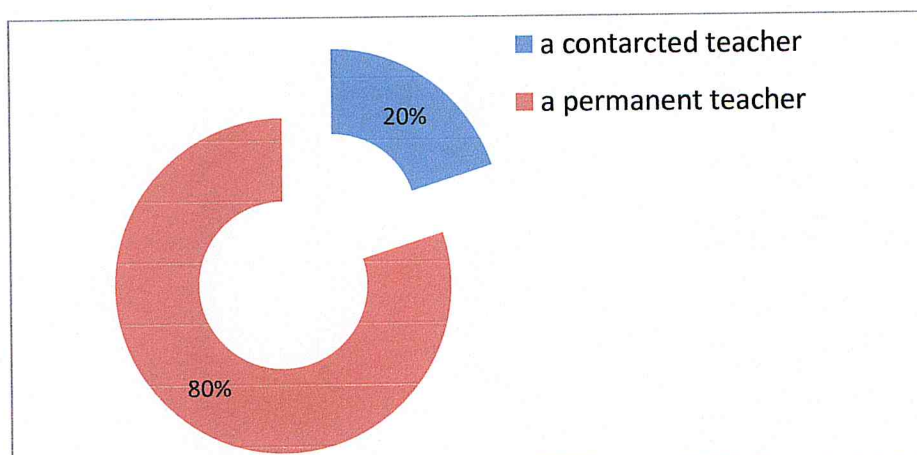
- Item 02: What is your teaching educational level(s)?



***Graph 6:** Teachers' educational cycle*

The graph shows that 67% of the teachers work at the high school, 33% teach and 23% have a Master degree. Undoubtedly, the teaching process in the middle school and high school are widely different in all.

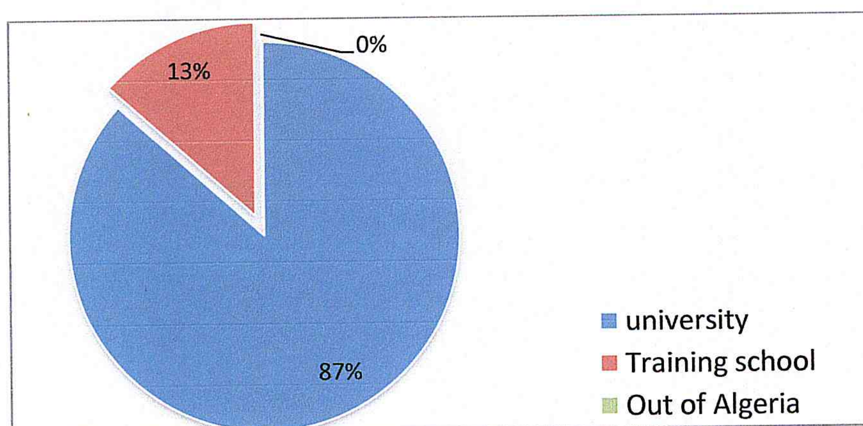
Item 03: Are you a permanent or a substitute teacher?



Graph 7: *Teachers' Professional Position*

The answers to the third item show that 80% of the participants are permanent teachers, while 20% are substitute teachers. Again, most of the targeted teachers are permanent employees. It is acknowledged that recruitment and retention of teachers have a direct impact on the students 'learning. Besides other factors, teacher competence and experience plays a crucial role in teaching for better achievement.

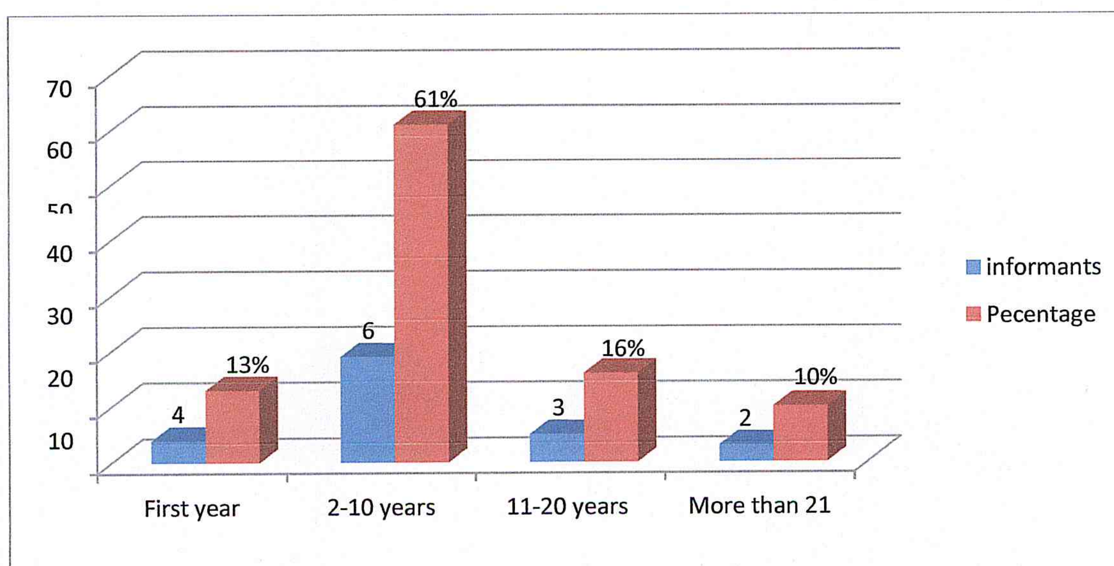
- Item 04 a): From where did you graduate from?



Graph8: *Teachers' Place of Graduation*

The answers to this item demonstrate that 90% of the teachers graduated from an algerian university, 13% of them graduated from an Algerian training college and only 0% graduated from a non-Algerian university. This diversity in teachers' instruction courses could enrich the teacher's awareness about the case of ADHD. These multi-based instruction courses could be regarded as an opportunity for teachers to get the chance to have an idea about ADHD case.

Item 05: How long have you been teaching English?



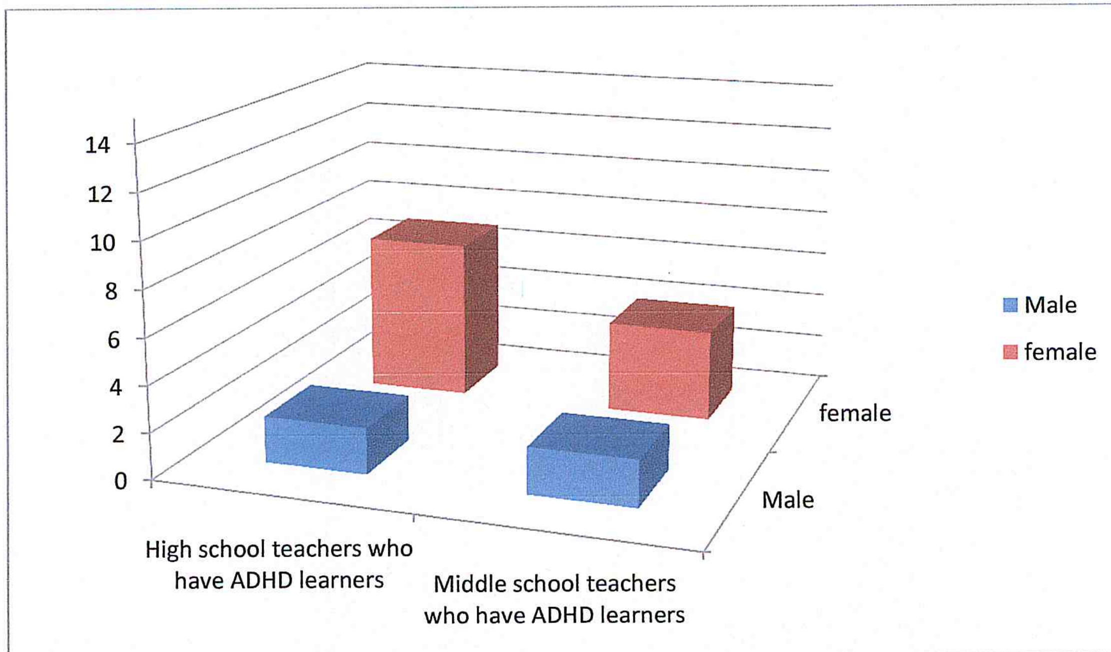
Graph 9: *Teachers' Experience*

The answers to question 5 reveal that most (61%) of the surveyed teachers have been teaching English for a period ranging from 2 to 10 years. Only 16% of them have been in-service for a period of time ranging from 11 to 20 years. A mere minority (10%) of them has accumulated a professional career exceeding 21 years. The rest, around 13% are novice teachers, i.e., they have no capital in their professional assets.

- Item 06: Have you received any training?

All the answers given by the teachers to the questionnaire were negative answers

Section II: Teaching Context Data



Graph10: The final results of the teacher's questionnaire

After gathering all the necessary data and analyzing all the questionnaires that have been handed back by the teachers, the final assessment came out successfully diagnosed for learners with skeptical backgrounds and almost the results from the learners' inventory and corners' teacher questionnaire are almost identical. To avoid the almost identical statistics researcher made the overall and final result of ADHD learners.

3.1. Data Discussion and Interpretation

After analysing the results, we are going to interpret the findings obtained from teacher's questionnaire and classroom observation.

3.1.1 Interpretation of the Teacher's Questionnaire

This section consists of 09 items that tackle the predominantly inattentive type which is known by its common symptoms; inattention, easily distracted, day dreaming," being lazy", "not making efforts or trying". It aims at extracting the attention deficit symptoms and make teacher aware of them. Item 01 helps the researcher measure the level of focus of learner and find out to what extent learner can pay attention during one hour time span class. While items 02, 03, 04, 05 aims at discovering the number of times these learners found difficulties organizing their tasks since the lack of organization and attention are of the major opposing problems to inattentive learners with ADHD. Moreover, 06, 07, 08, 09 aim at the learning capabilities of the learner such as memorization. Additionally, the second part consists of 11 interrelated items which aims at collecting data about learner's behavior and interaction in classroom. Items from 10 to 14 are about impulsive and behavioral issues such as excessive talk and moving a lot. And items from 14 to 18 are about hyperactive syndrome

Overall, the results of the teacher's questionnaires show that all teachers answered the majority of questions. Based on the analysis of teacher's questionnaire our interpretations are built.

The results show that the majority of teachers have a good, stable and respectful relationship with their students, this indicate that they know about teaching strategies and techniques. In addition, they establish several rules in order to maintain the whole classroom discipline.

According to the results, teacher's answers about their awareness of ADHD are limited. The majority of them seem to have no awareness of it or just came to know it when I asked them about it, even though they have been teaching for a considerable amount of time and dealing with young children. The very minority of them knows about the disorder but briefly maybe they are not interested or motivated, trained to such subject.

The findings show that teachers have ADHD cases in their classrooms at least one child who shows all the symptoms, after knowing about it and comparing the symptoms with the ones shown by their students. They came to understand that those who can't sit still and disturb their classmates, those who find difficulties in paying attention and focusing are not children who misbehave or lack learning abilities; in fact those children suffer from a serious brain disorder and teachers need to get to know more about it.

Most of teachers think that they know their job and they know how to handle their students. This could explain their teaching experience and teaching techniques and methods used in the classroom. From another hand there are teachers who like to ask about what works for their students they like to be flexible with them, which explain the connection between the teacher and the students and their interests about making them comfortable and motivate them in asking questions and learning in general.

Most teachers emphasize the idea of teaching ADHD students in a special environment. These students cannot always control their behaviours; actions can come out before the child think about or realize the consequences. When they get punished, they refuse to work or they disturb their peers. Their behaviours will increase and it impacts the whole classroom which would lead to difficulty in handling them. This explains that these students are in the need of accommodations but are not in the need of special environment. From the

point of view of other teachers, children can remain to regular classes and receive extra support and guidance.

Each teacher has his own strategy and techniques when managing certain behaviours and disciplines, especially when dealing with ADHD students.

3.1.2. Interpretation of the classroom observation

We have attended three sessions and remarked that the rooms were organized, there were colours and pictures drawn by some students. There were also some teaching materials and games. This means that the classroom environment is appropriate for teaching children. However, there were some children who show some symptoms and we have noticed that from our understanding of the disorder and our own background knowledge and upon conducting extensive research on the subject. These children, do things they not allowed to do in the class, they don't pay attention they speak and play when the teacher explain lessons, disturb their peers and they seem careless when giving directions. They get upset and they start crying loudly and the class become so nosy. This explains the differences between children with and without ADHD. For those without it, like to work in silence and pay attention and follow teacher's directions but, they seem to be distracted especially in math and reading because they seem interested in learning in a quit environment. The observation reveals that students with ADHD exhibited statistically significant lower rates of academic engagement and higher rates of off-task behaviours than recruited controls and randomly selected peer comparisons.

Since teachers are with children for most of the day and for months out of the year, they are often the first ones to recognize or suspect that a particular child is behaving abnormally. They can't diagnose the child but, they can tell about what they have noticed when speaking with his parents or with the school psychologist about their concerns.

In the classroom observation, teachers seem familiar with the classroom environment, they get used to the noise and disruptions of certain children.

3.2 Summary of the interpretations

Our interpretation can be summarised as the following:

3.3 Limitations of the study

The results and interpretation imply that the hypotheses mentioned at the beginning of the work are confirmed; however the research paper has some limitations.

The first limitation is time, which was not sufficient, the large time you have the more tools you will use, in the observation we need time to attend more than three sessions but unfortunately, we were supposed to sit for the third semester for both lectures and exams.

The second limitation is collecting data from research tools, it took time to collect all the questionnaires answers especially teachers because they were having classes and in the need of time.

As a third limitation, being an inexperienced researcher make some difficulties to cover all the missing points.

Finally, we have to work on our dissertation and being asked for some other works such as training and classroom presentations.

3.4 Suggestions and pedagogical recommendations

Since teachers still face problems in teaching ADHD students, we try to suggest some pedagogical recommendations to help teachers to solve and control the difficulties in teaching them and maintain classroom discipline.

3.4.1 Suggestions and recommendations for teachers

After interpreting results, we remarked that teachers face problems teaching ADHD cases, providing some suggestions and recommendations seem helpful to help them reduce those problems. The important things when dealing with an ADHD child I recommended are:

Teacher's awareness about the disorder:

Teachers need to be aware about ADHD and enrich their knowledge about it; they need to be aware of the symptoms and how to deal with it. Some behaviours attempt to be normal but with the case of ADHD, teachers need to understand how that disability interferes with their ability to learn and stay on task even if there is no special training. They need be extremely loving and very patient even they tend to drive them creasy.

"Teachers can help children with ADHD become successful in school", "The best *thing a teacher can do is to look for the small milestones with kids with ADHD."* said Beth Kaplanek, volunteer president of the board of directors for Children and Adults with ADHD (CHADD).

When teachers understand the struggle of a student with ADHD, they can better help that student in the classroom. Because children with ADHD do better when their lives are ordered and predictable, the most important things teachers can do for those children is establish a calm, structured classroom environment with clear and consistent rules and regular classroom routines.

CHADD and the American Academy of Paediatrics (AAP) offer suggestions on what teachers can do in the classroom to help students who have ADHD:

- Display classroom rules. Classroom rules must be very clear and concise.
- Provide clear and concise instructions for academic assignments.
- Break complex instructions into small parts.
- Show students how to use an assignment book to keep track of their homework and daily assignments.
- Post a daily schedule and homework assignments in the same place each day. Tape a copy on the child's desk.
- Plan academic subjects for the morning hours.
- Provide regular and frequent breaks.
- Seat the child away from distractions and next to students who will be positive role models.
- Form small group settings when possible. Children with ADHD can become easily distracted in large groups.
- Find a quiet spot in the classroom (such as a place in the back of the room) where students can go to do their work away from distractions.
- Train the student with ADHD to recognize "begin work" cues.
- Establish a secret signal with the child to use as a reminder when he or she is off task.
- Help the child with transitions between other classes and activities by providing clear directions and cues, such as a five-minute warning before the transition.
- Assign tutors to help children with ADHD stay on task. Tutors can help them get more work done in less time and provide constant reinforcement.

- Focus on a specific behaviour you wish to improve and reinforce it. Teachers can reinforce target behaviours by paying attention to the behaviour, praising the child, and awarding jobs and extra free time.
- Offer more positive reinforcements than negative consequences.
- Explain to the student what to do to avoid negative consequences.
- Reward target behaviours immediately and continuously.
- Use negative consequences only after a positive reinforcement program has enough time to become effective.
- Deliver negative consequences in a firm, business-like way without emotion, lectures, or long-winded explanations.
- Catch them being good. Let them know when they did something you are proud of.
- Recognize their effort because children with the disorder will face negative feedback constantly throughout the day. The role of the teacher is to give positive reassurance and this helps in building self- esteem in a positive way.
- Find what they are good at and through that children will be able to flourish.
- Figure out what hardships they might be having with specific subjects and try to help in decreasing them.

Children suffering from the disorder need help to channel their physical activity. They need to work with together with the student's parent to create and implement an educational plan to meet their needs; they also need to have high expectations for them.

Conclusion

In this chapter, we have interpreted the analysis of the findings by describing the result then interpret it. To make it clear we summarized the interpretation in some key points. On the light of interpretation, we found that our hypotheses are confirmed by the results. After that, we set some limitations and problems that face us when conducting this research paper.

In the end we have included some suggestions and pedagogical recommendations to help teachers overcome their problems when teaching ADHD students.

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Center for Effective Collaboration and Practice, http://cecp.air.org/fba/

Center for Parent Information and Resources (CPIR), http://www.parentcenterhub.org. This web-site now contains the information formerly available at the National Dissemination Center for Children with Disabilities (NICHCY) and Technical Assistance Alliance for Parent Centers, which no longer exist.

Center on Instruction, www.centeroninstruction.org

Center on Response to Intervention at American Institutes for Research, www.rti4success.org /related-rti-topics/special-education

CHADD and the National Resource Center on ADHD, as well as *ADDitude* magazine, have free webinars from experts on a variety of topics, including the educational rights of students with ADHD. CHADD has a large number of resources for parent advocacy at www.chadd.org /Advocacy.aspx and its Parent to Parent training program (http://chadd.org/Training-Events /Parent-to-Parent-Program.aspx). CHADD and National Resource Center on ADHD information on educational rights of students with ADHD can be found at http://chadd.org/Advocacy /Education.aspx.

Council for Exceptional Children, www.cec.sped.org

Council of Parent Attorneys and Advocates, www.copaa.org
Family and Advocates Partnership for Education, www.fape.org
Federation for Children with Special Needs, http://fcsn.org
IDEA Partnership, www.ideapartnership.org
IDEA and US Department of Education, http://idea.ed.gov/. Federal site for information about the Individuals with Disabilities Education Act (IDEA).
www.ebook3000.

APPENDICES

Appendix
Teachers Questionnaire

Dear Teachers and School Counselors,

You are kindly requested to answer this following questionnaire; we are currently looking for possible learner's behavioral issues. The purpose of this questionnaire is to investigate and evaluate teacher's attitude and student's behavior in class. We appreciate any feedback you can provide us during this evaluation process. Our goal is to obtain more information that will enable us to form a specific plan in order to help this child become a more successful student. Enclosed are questionnaires that should be completed individually by current teachers and counselors, and teachers and counselors in the preceding year who were involved directly in this child's education.

Section I: Personal and Professional Information

Please! Choose only one response by ticking (√) the appropriate box.

1- **What is your gender?**

a) Male ☐ b) Female ☐

2- **What is your teaching educational level?**

a) Middle school ☐ b) High school ☐

3- **You are:** a) a permanent teacher ☐ b) a contract teacher ☐

4- **From where did you graduate?**

a) University ☐ b) Training college ☐ c) A foreign country ☐

5- **How long have you been teaching?**

a) This is my first year ☐ b) 2-10 years ☐

c) 11-20 years ☐ d) more than 21 years ☐

6- **Have you received any in-psychopedagogical training?**

a) Yes ☐ b) No ☐

PLEASE TURN THE PAGE OVER

Section II: Issues' Identification, Assessment and Resolution

	Not at all.	Just a little.	Pretty Much.	Very Much.
1. Fails to give attention to details or makes careless mistakes in schoolwork.				
2. Has difficulty sustaining attention to tasks or activities.				
3. Does not seem to listen when spoken to directly.				
4. Does not follow through on instructions and fails to finish schoolwork (not due to oppositional behavior or failure to understand).				
5. Has difficulty organizing tasks and activities.				
6. Avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort.				
7. Loses things necessary for tasks or activities (school assignments, pencils, or books).				
8. Is easily distracted by extraneous stimuli.				
9. Fidgets with hands or feet or squirms in seat.				
10. Leaves seat in classroom or in other situations in which remaining seated is expected.				
11. Runs about or climbs excessively in situations in which remaining seated is expected.				
12. Has difficulty playing or engaging in leisure activities quietly.				
13. Is "on the go" or often acts as if "driven by motor."				
14. Talks excessively.				
15. Blurts out answers before questions have been completed.				

Performance	**Excellent**	**Above Average**	**Average**	**Somewhat of a Problem**	**Problematic**
Reading					
Mathematics					
Written Expression					
Relationship with peers					
Following directions					
Disrupting class					

Thank you very much for your cooperation

Appendix A

Learners' Inventory

Level: .... *Çender:* male female

Please! Tick (X) the appropriate box (only one):

	Please answer the questions below, rating yourself on each of the criteria shown using the scale on the right side of the page. As you answer each question, place an X in the box that best describes how you have felt and conducted yourself over the past 6 months	Never	Rarely	Sometimes	Often	Very Often
1	How often do you have trouble understanding the final details of a project?					
2.	How often do you have difficulty to do tasks that requires organization?					
3	How often do you have problems remembering appointments or obligations?					
4	When you have a task that requires a lot of thought, how often do you avoid or delay getting started?					
5	How often do you fidget or squirm with your hands or feet when you have to sit-down for a long time?					
6	How often do you feel overly active, like you were driven by a motor?					
7	How often do you make careless mistakes when you have to work on a boring or difficult project?					
8	How often do you have difficulty keeping your attention when you are doing boring or repetitive homework?					
9	How often do you have difficulty concentrating on what people say to you?					
10	How often do you misplace or have difficulty finding things at home or school?					
11	H ow often are you distracted by activity or noise around you?					
12	How often do you leave your seat in situations in which you are expected to remain seated?					
13	How often do you feel restless or fidgety?					
14	How often do you have difficulty unwinding and relaxing when you alone?					
15	H ow often do you find yourself enjoying talking to your friends?					
16	When you're in a conversation, how often do you find yourself finishing the sentences of the people you are talking to, before they can finish them themselves?					
17	How often do you have difficulty waiting your turn in situations when turn taking is required?					
18	How often do you interrupt others when they are busy?					

Appendix A

Learners' Inventory

***Level*: ....** **Gender**: male ☐ female ☐

Please! Tick (X) the appropriate box (only one):

	Please answer the questions below, rating yourself on each of the criteria shown using the scale on the right side of the page. As you answer each question, place an X in the box that best describes how you have felt and conducted yourself over the past 6 months	Never	Rarely	Sometimes	Often	Very Often
1.	How often do you have trouble understanding the final details of a project?					
2.	How often do you have difficulty to do tasks that requires organization?					
3.	How often do you have problems remembering appointments or obligations?					
4.	When you have a task that requires a lot of thought, how often do you avoid or delay getting started?					
5.	How often do you fidget or squirm with your hands or feet when you have to sit-down for a long time?					
6.	How often do you feel overly active, like you were driven by a motor?					
7.	How often do you make careless mistakes when you have to work on a boring or difficult project?					
8.	How often do you have difficulty keeping your attention when you are doing boring or repetitive homework?					
9.	How often do you have difficulty concentrating on what people say to you?					
10.	How often do you misplace or have difficulty finding things at home or school?					
11.	How often are you distracted by activity or noise around you?					
12.	How often do you leave your seat in situations in which you are expected to remain seated?					
13.	How often do you feel restless or fidgety?					
14.	How often do you have difficulty unwinding and relaxing when you alone?					
15.	How often do you find yourself enjoying talking to your friends?					
16.	When you're in a conversation, how often do you find yourself finishing the sentences of the people you are talking to, before they can finish them themselves?					
17.	How often do you have difficulty waiting your turn in situations when turn taking is required?					
18.	How often do you interrupt others when they are busy?					

Resume:

Students who have Attention Deficit Hyperactivity Disorder often struggle in the classroom with issues pertaining to organization, distractibility, impatience and restlessness. Classroom teachers who offer accommodations to assist the student overcome barriers to learning often wonder what techniques are most effective. As more information about ADHD accommodations becomes available, school professionals can support students with ADHD even more effectively in the classroom than previously thought. Learners diagnosed with ADHD may face challenges with social situations, personal skill development, and academic achievement. Teens with the diagnosis commonly engage in risky behavior, have difficulties with peer relationships, and may experience poor performance in the classroom. Students need coping skills and the ability to self-advocate, to overcome barriers to learning. School counselors and teachers who advocate for students are an important part of the support team as they work with parents, administrators, and experts to develop a plan that meets the needs of the individual student. Strategies that school counselors may use to support students with ADHD include group-work, adjusting the students' schedules, establishing routines, and organization planning. Specialized training and up-to-date workshops will further enhance the skills that school teachers can use in working with students with ADHD.

ملخص

الطلاب الذين يعانون من اضطراب نقص الانتباه وفرط النشاط غالبًا ما يصارعون في الفصل الدراسي مع القضايا المتعلقة بالتنظيم والتشتت ونفاد الصبر والأرق. غالبًا ما يتساءل المعلمون الذين يقدمون إمكانيات لمساعدة الطالب في التغلب على العوائق التي تساعدهم على التعلم،و ما هي الأساليب الأكثر فعالية. مع توفر المزيد من المعلومات حول الإمكانيات الخاصة للطلاب المصابين بفرط الحركة ونقص الانتباه ، يمكن للمهنيين في المدارس دعم الطلاب المصابين باضطراب فرط الحركة ونقص الانتباه بشكل أكثر فاعلية في الفصل الدراسي مما كان يعتقد سابقًا. قد يواجه المتعلمون المصابون باضطراب فرط الحركة ونقص الانتباه تحديات في المواقف الاجتماعية وتنمية المهارات الشخصية والتحصيل الدراسي. عادة ما يشارك المراهقون الذين يعانون من التشخيص في سلوك محفوف بالمخاطر ، ويواجهون صعوبات في علاقات الأقران ، وقد يعانون من ضعف الأداء في الفصل الدراسي. يحتاج الطلاب إلى مهارات التأقلم والقدرة على الدفاع عن أنفسهم ، للتغلب على عوائق التعلم. يمثل المستشارون والمدرسون الذين يدافعون عن الطلاب جزءًا مهمًا من فريق الدعم أثناء عملهم مع أولياء الأمور والمسؤولين والخبراء لوضع خطة تلبي احتياجات الطالب الفردي. تشمل الاستراتيجيات التي قد يستخدمها مستشارو المدارس لدعم الطلاب المصابين باضطراب فرط الحركة ونقص الانتباه العمل الجماعي ، وتعديل جداول الطلاب ، ووضع إجراءات روتينية ، والتخطيط التنظيمي. التدريب المتخصص وورش العمل الحديثة ستزيد من تعزيز المهارات التي يمكن لمعلمي المدارس استخدامها في العمل مع الطلاب المصابين باضطراب فرط الحركة ونقص الانتباه