Research Study Exploring the Primary Teachers' Knowledge About ADHD and their Attitude Towards the Inclusion of ADHD learners in the Mainstream Classrooms in an American Private School in Sharjah

دراسة بحثية لتحديد مدي معرفة مدرسين المرحلة الابتدائية باضطراب فرط الحركة وتشتت الانتباه ومدى انعكاس وعيهم لهذا الاضطراب على دمج الطلاب ذوي الاضطراب في فصول الدمج في احدى مدارس الشارقة الخاصة (منهج امريكي)

by

NAJAT ELCIRCEVI

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Abstract

The chief intent of this study was to explore the issues around including the attitudes and knowledge of teachers towards children with ADHD and their inclusion into mainstream classrooms in the UAE. It also sought to assess the impact of the attitudes held by teachers as well as their awareness on ADHD children's academic achievement.

Furthermore, this study includes an overview of the main characteristics of children with ADHD in the impact the disorder has on their academic, social and emotional well-being. The tools utilized in this study were drawn from the qualitative approach and used to obtain the data required for this research. Semi-structured interviews were conducted with special educators, subject teachers, parents and the child, called Ali for the purpose of this study, which is not his real name. This pseudonym was adopted in order to protect the child's identity and maintain ethical standards of child privacy. Furthermore, observations in and out of the classroom were used to gather further data to support the analysis. The semi-structured interviews were specifically used to identify the levels of knowledge and awareness in the UAE in relation to ADHD, and to assess the level of impact on an affected child's learning in a mainstream classroom that results from the teacher's knowledge of ADHD.

ADHD is known to be associated with academic challenges and behavioural issues and is a relatively common disorder. There are a number of options for interventions available to affected children, which include behavioural therapy and medication. These treatments and approaches have been widely researched; however, far less is known and evidenced regarding the effect on a child's development of their teacher's attitudes towards and knowledge of ADHD and how these impact on the child's learning outcomes. This study found that the majority of teachers in a primary setting appeared to have limited knowledge and understanding of ADHD and consequently raising awareness was found to be needed. In the UAE, ADHD remains underexplored and little understood; this increases the importance of early intervention services and improving teacher knowledge in relation to ADHD. By building a greater understanding of ADHD amongst education professionals and other stakeholders, the academic achievement, the social skills and the general well-being of children with ADHD can be significantly improved.

نبذة مختصرة

الهدف الأساسي من هذا البحث هو اكتشاف مدى معرفة ووعي معلمي المرحلة الابتدائية باضطراب فرط الحركة وتشتت الانتباه ومدى انعكاس معرفتهم بهذا الاضطراب وخصائصه على الطلاب ذوي فرط الحركة وتشتت الانتباه. كما تهدف هذه الدراسة الى معرفة توجهات المعلمين نحو دمج هؤلاء الطلاب مع أقرانهم في فصولهم الدراسية (فصول الدمج).

أجريت الدراسة على فصول المرحلة الابتدائية في إحدى مدارس الشارقة الخاصة والتي تدرس المنهاج الأمريكي في دولة الإمارات العربية المتحدة.

سعت الباحثة في هذه الدراسة إلى تسليط الضوء على مدى تأثير الأساليب التدريسية المتبعة على الإنجاز الأكاديمي لهؤلاء الطلاب في فصول الدمج، وتتضمن الدراسة لمحة عامة عن الخصائص الرئيسية للأطفال ذوي فرط الحركة ونقص الانتباه ومدى تأثير خصائص هذا الاضطراب على مقدرتهم الأكاديمية والاجتماعية والعاطفية.

ولقد تم استخلاص نتائج البحث لهذه الدراسة من خلال اختيار طالب في الصف الخامس الابتدائي "علي" وهو الاسم المستعار الذي أطلقته الباحثة لهذه الحالة الدراسية حيث أنه طالب يعاني فرط الحركة وتشتت الانتباه وكونه مدمجاً كاملاً في إحدى الفصول العادية. ولقد تم اعتماد هذا الاسم المستعار للحفاظ على المعايير الأخلاقية ولحفظ خصوصية الطفل.

تلخص البحث في عمل مقابلات ميدانية شبه منظمة بداية مع الطالب ووالدته لمعرفة مدى تأثير وعي المعلمين باضطراب فرط الحركة وتشتت الانتباه. ثم بعد ذلك تم عمل مقابلات مع معلمي المواد الدراسية وذلك لقياس مدى تأثير وعيهم بهذا الاضطراب على تقدم الطالب العلمي والنفسي ومن خلاله سيتم تحديد مواقفهم تجاه دمج الطلاب ذوي فرط الحركة وتشتت الانتباه في فصولهم الدراسية. كما تم توضيح بعض السبل التعليمية اللازمة لدعم هؤلاء الطلاب لرفع تحصيلهم العلمي بما يتناسب ومقدرتهم التحصيلية. تم أيضاً ملاحظة الطالب داخل الفصل وخارجه كوسيلة أخرى لتحديد مستوى وعي مدرسي المرحلة الابتدائية بهذا الاضطراب ومدى تأثير هذا الوعي على تحصيل وتقدم الطلاب العلمي والنفسي.

من المعروف أن اضطراب فرط الحركة ونقص الانتباه يرتبط بالتحديات الأكاديمية والقضايا السلوكية وهو اضطراب شائع نسبيًا. وهناك عدة خيارات للتدخل وعلاج الأطفال المصابين، والتي تشمل العلاج السلوكي والأدوية.

هذه المعالجات والمقاربات تم بحثها على نطاق واسع. ومع ذلك هناك قدر أقل بكثير من الأدلة، والمعروف فيما يتعلق بالتأثير على نمو الطفل لمواقف المعلمين تجاه اضطراب فرط الحركة وتشتت الانتباه ومعرفته وكيف يؤثر ذلك على نتائج تعلم الطفل. وقد خلصت هذه الدراسة إلى أن غالبية المعلمين في المرحلة الابتدائية يغيب عن أذهانهم ماهية اضطراب فرط الحركة ونقص الانتباه (أسبابه وأعراضه)، وبالتالي فإن زيادة الوعي ضرورة ميدانية ملحة في العالم أجمع وفي الإمارات العربية المتحدة تحديداً.

وبما أن اضطراب فرط الحركة ونقص الانتباه لا يزال غير مستكشَف وهذا يزيد من أهمية خدمات التدخل المبكر وتحسين معرفة المعلم بالمشكلات المذكورة سلفاً. من خلال بناء فهم أكبر لاضطراب فرط الحركة ونقص الانتباه بين المتخصصين في التعليم وغيرهم من المهتمين بمجال التعليم وأصحاب القرار في هذا المجال، حيث يتبين أنه يمكن تحسين نمو الطفل المتأثر باضطراب فرط الحركة وتشتت الانتباه من ناحية الإنجاز الأكاديمي والمهارات الاجتماعية والتواصل العام بشكل كبير.

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ADHD: Attention Deficiency Hyperactivity Disorder

ADD: Attention Deficiency Disorder

BUID: British University in Dubai

CD: Conduct Disorder

CTR-S: Conner's' Teacher Rating Scale

DSM-IV: Diagnostic and Statistical Manual of Mental Disorders, 4th edition EBD: Emotional Behavioral Disorder

GCC: Gulf Co-operation Council (referred in context to countries)

GLD: General Learning Disability

I.Q: Intelligence Quotient

IEP: Individual Educational Plan

LD: Learning Disability

MTA: Multimodal Treatment Study of Children with Attention-deficit/Hyperactivity Disorder

ODD: Oppositional Defiant Disorder

PSS: Processing Speed Score

RT: Reaction Time

SEBD: Social Emotional Behavioral Disorder

SEND: Special Education Needs & Disabilities

SLD: Specific Learning Disability

U.A.E: United Arab Emirates

Chapter 1: Introduction

As in many countries, government policy in the UAE over the last two decades has sought to include all children, including those with general learning disabilities (GLDs) and specific learning disabilities (SLDs) in mainstream classrooms. According to the Federal Disability Law No. 29/2007, Special needs students have the right of education in schools. The general term of 'special needs' has been changed to people with 'disabilities' by Sheikh Khalifa Bin Zayed Al Nahyan, the president of UAE (Gaad 2011). Furthermore, UAE has endorsed the UNESCO "Education for All" program. Therefore, the law has guaranteed the inclusion of the SEND children in mainstream classrooms. However, and according to Gaad (2011), the law is yet way far from being pertained entirely. Ultimately, the law indicates disabilities in general but does not specify certain disorders such as ADHD.

This research study focuses on children with ADHD, which is one type of SLD, and their experiences inside mainstream classrooms. Common characteristics of ADHD include inattention, hyperactivity, and impulsivity, which can all undermine a child's academic development. Additional factors may also risk the development of such children, and it is imperative to identify these risks and address them. For instance, should an ADHD child's teacher have low expectations of such an individual, this could stigmatize the child and also result in the teacher failing to deliver adequate educational services (Clark, 1997). That is to say that labeling a child as having ADHD can associate negative attitudes and have negative connotations towards the affected child, often resulting from the child's teacher treating the student differently and in such a way that marginalizes them from their education and other students (in particular, those students without a disorder).

This research study conducts an examination of if and how students with ADHD are potentially at risk of being stigmatized by mainstream teachers, and how this can result in reduced expectations of these children in the school setting. Furthermore, this study also explores whether such reduced teacher expectations can impact the academic achievement of such students.

This research investigates the knowledge of ADHD held by teachers as well as the services that they deliver to affected children in the mainstream classroom setting in the UAE. Many students

in the UAE, like in many other countries, are not recognized as having ADHD until they experience severe academic challenges, ranging to expulsion from school due to impulsive behavior (Osama & Afifi, 2010). According to Osama and Afifi (2010), ADHD children can face many confusing experiences in the school setting that negatively impact their self-esteem, academic achievement, and social life. Eventually, such children may even stop attending school as a result of these negative experiences, even at an early stage.

Early intervention and service provision can avoid these negative impacts as well as associated emotional problems affecting ADHD children (Portwood, 1999; Kranowitz, 2005). This study continues to explore then how mainstream settings and teaching practices can best be developed to deliver the best quality education service to ADHD children.

This study begins by presenting a summary of the existing evidence around how children are affected by ADHD, including the challenges they experience in primary school settings, their relationships with their teacher and the level of knowledge held by teachers about ADHD, as well as the teachers' attitudes towards ADHD children. The study explores the degree to which teachers are aware of the family circumstances of ADHD children in their classrooms and how expanding upon this awareness can be of benefit to the children. Finally, an investigation is also conducted into the relationship between ADHD students and their mainstream peers.

1.1. Importance of the Study in the UAE

The government of the UAE implements the United Nations Charter for Human Rights in Education for all (EFA) and has developed appropriate policies. As such, ADHD is identified as a particular need that qualifies affected students to receive support in special education and related services. This is defined in the 'Schools for All Guidebook' published by the MOE (2010). This set of guidelines identifies the key characteristics of ADHD, inattention, hyperactivity, and impulsivity, and besides details other important markets of the disorder, in an attempt to ensure that ADHD children are not misunderstood and their ADHD-related traits mistaken for character flaws, behavioral deficiencies, moral and ethical deficits or personality issues. All of these issues are common aspects of ADHD (Barkley, 2013).

As early intervention services for children with ADHD are not widely understood and implemented in the UAE, one of the critical purposes of this study – to identify, recognize and

adapt to the symptoms of ADHD to best deliver quality education to affected children – is very important for both the UAE and the full Arab world. As such, this research intends to add awareness and knowledge of ADHD and best practices for mainstream education of ADHD children that can be applied throughout the region. It will also contribute to the academic literature related to this topic while adding to the culture and environment in the UAE.

1.2.   Rational and the Purpose of the Study

Teachers' attitudes have been proven to be essential to the effectiveness of inclusive education in recent studies. This researcher sought to identify and understand the attitudes of teachers towards ADHD and educating affected children in a private school in Sharjah, UAE.Besides, this research intended to reflect how the teachers involved in the study defined their abilities to understand the specific requirements of teaching ADHD children in their mainstream classrooms. Various skills and tools that are required to implement successful inclusive education for children with ADHD and to meet their IEP objectives are explored. These include intervention teaching strategies, adaptation, and accommodation in the mainstream classroom and curriculum modification.

According to Alghazo and Gaad (2004), most mainstream teachers in the UAE have historically not been encouraged to implement inclusive education in their classrooms. This highlights the importance of preparing and training primary teachers in the UAE education system to be able to identify and adapt to children with ADHD.

A review of the relevant literature is also conducted to summarize the influence of teachers' attitudes on academic achievement and behavioral outcomes of children with ADHD. It is essential to acknowledge the role of teacher attitudes and to encourage further research on this specific topic.

This researcher has worked as a primary teacher and SENCO for twenty-six years and has taught thousands of students about the course of this career. Many of these students struggled with the challenges presented by ADHD, as well as other disabilities. Unfortunately, these students tended to have low academic achievement as a consequence of their SLDs or challenging behavior. Most of them also exhibited poor social skills and were subsequently not able to express themselves clearly and coherently. This often resulted in these children being blamed for

bad behavior or other social issues, when, in fact, they had ADHD. However, this fact was not recognized or taken into appropriate consideration by many of the teachers and education staff around them. As a SENCO, as well as a class teacher, this researcher was able to explore further into the worlds of each of these children and to develop a better understanding of the issues they faced, how to address them and ultimately how best to deliver appropriate education strategies to help these students reach their potential.

More often than not, joint feelings by these children with ADHD was that they feel hurt, rage, sadness, deterrence, and worry. This recurring theme persuaded this researcher that it was necessary to examine their teacher's awareness of ADHD and the impact their attitude of this disorder had on each affected child's academic, social and emotional development. This research expands upon this theme.

Kranowitz (2005) noted, "as my knowledge increased, so did my teaching skills." This researcher's own teaching experiences were enriched by the process of better understanding ADHD and its impact on affected students; this resulted in the development of new strategies to address learning challenges for children affected by ADHD, as well as other learning difficulties. In many cases, the students themselves could clearly be observed enjoying their time in mainstream classrooms more than previously. The researcher is fortunate enough to conduct this investigation at the school that they currently teach. This opportunity provides easy access to data and familiarity with the environment and participants, which adds significant value to the study.

Furthermore, the opportunity to pass on the knowledge gained from this research to peers and other key stakeholders in intervention strategies, such as teachers and parents, will have a notable positive impact on the student's behavior, self-esteem, and academic performance. This researcher found this to be very motivational and became more driven to establish awareness of ADHD among parents, primary teachers, community members, and other stakeholders in order to assist these children in overcoming their learning challenges.

1.3. Outline of the Research and the Research Questions

The primary purpose of this research is to better understand the ADHD disorder in the UAE context. The study is conducted in an American curriculum private school in Sharjah, and the

case study is based on a male student who has been identified as having ADHD, which is more prevalent in males, according to Barkley (2006). Barkley (2006) notes that "boys are three times more likely to have ADHD than girls." Besides, a specialist interview will be conducted to provide higher medical insight into the ADHD condition.

The study is divided into five chapters. The first chapter provides the introduction to lay out the theoretical dimensions of the research and how ADHD is perceived in the UAE context. The second chapter addresses the literature review surrounding ADHD in the broader world and the Arab world in particular. Chapter three covers the qualitative method utilized in this research to collect the relevant data. Chapter four analyses the results and discusses the findings of the research. The fifth and final chapter of this study includes an analysis of the findings and provides and conclusions recommendations further research.

The research is based on addressing the following three research questions:

1. To what extent are Primary teachers knowledgeable about ADHD and its symptoms that impact ADHD learners learning progress?

2. What are the primary classroom teachers' attitudes towards inclusion of students with ADHD mainstream classroom in the private sector in Sharjah?

3. To what extent do primary teachers' awareness influence intervention quality with ADHD learners?

Chapter 2: Literature Review

2.1. What is ADHD?

Over the past several years, Attention-Deficit/Hyperactivity Disorder (ADHD) has been the focus of increased attention in the academic and scientific literature as well as in popular press and media (Du Paul et al., 2003). As the most common psychiatric disorder in childhood, ADHD affects approximately 3-7% of school-age children. Specific subtypes of ADHD has been diagnosed with different characteristics. Such as, including inattentive behaviors, impulsive behaviors, and hyperactivity or combinations of some or all (Barkley, 1990; DSM-IV-TR, 2000). These cardinal symptoms of ADHD often result in significant challenges to learning and academic difficulties (DuPaul, 1991), as well as delays that regularly lead an affected child is a teacher to be the first to notice the disorder being present (Mash & Wolfe, 2005).

Managing ADHD involves a multimodal approach, which typically includes behavioral and academic interventions as well as medication. Many research studies have assessed the success of treatment methods. One particular study known as the Multimodal Treatment Study of Children with Attention-deficit/Hyperactivity Disorder (MTA) proposed that all three methods of intervention have varying degrees of merit (MTA Cooperative Group 1999a, 2004a, 2004b).

2.2. History of ADHD

ADHD is not a new or recently discovered disorder (Rief, 2003). Instead, it was first identified in 1902 and is perceived as a common disorder, which is characterized by academic challenges in the classroom, particularly at pre-school and elementary levels. Attention-Deficit Disorder (ADD) is commonly known as a disorder wherein an affected individual finds it challenging to focus for an extended period. In cases where this inability to pay attention

]]is heightened; the condition is referred to as ADHD. Besides, ADHD has evolved out of several earlier terms, including Minimal Brain Damage, Minimal Brain Dysfunction, Hyperactive Child Syndrome, ADD, or without Hyperactivity (Rief 2003, p.12). This range of terms has mostly been replaced with ADHD or ADD.

Both ADD and ADHD are related to the same disorder and share many similar traits. However, ADD is somewhat out-of-date that was predominantly recognized before 1987. After 1987, ADHD became primarily used to refer to the same disorder (Rief, 2003). This reference change

was a result of a combination of multiple indicators of the disorder, such as impulsiveness and inattention. In the UK, ADHD is also considered as Hyperkinetic disorder (Hart & Benassaya, 2009). According to Wender (2000), who goes somewhat further, ADHD is a syndrome, not a disorder; the former is a medical term that describes a group of difficulties that can "clump, cluster, or move together" (Wender 2000, p.31). Some or all of the characteristics of the disorder can be exhibited by an affected individual, while the severity of ADHD differs from one person to another (Mash & Wolfe, 2005; Wender, 2000).

2.3. Symptoms of ADHD

Individuals with ADHD usually present symptoms such as inattention, hyperactivity, and impulsivity in persistent and consistent patterns. These patterns interfere with the functioning and development of an affected individual's academic development (Wender, 2000, p.13). When a child exhibits six of the symptoms commonly associated with ADHD in two to three settings, such as at school, home, office, sports clubs, and so on, they are diagnosed as having the disorder to some degree or another (Kewley, 2005). Most children with ADHD present both subtype symptoms and thus are described as having combined subtypes.

The Investigative and Statistical Manual for Intellectual Disorders (fifth Edition), which was last updated in 2013, describes ADHD in three subcategories as follows:

1. Inattentive; not paying attention

2. Hyperactive/Impulsive; overly active and impulsive

3. Or a combination of the above

Bener et al. (2006) note the understanding of the neurobiological basis of ADHD is limited. Consequently, ADHD is considered to result from inherited factors as well as environmental conditions (Rief, 2003). Kos et al. (2004) argue that the cause is unlikely to be linked to a specific gene, rather than a combination of errors in many genes that determine the presence of ADHD and the severity of symptoms. They consider that these genes may well affect the production of brain transmitters within the body (2004). In effect, the literature refers to the specific neurotransmitter Dopamine, which is elevated when the brain becomes involved in specific processes and behaviors, such as obtaining a reward, being impulsive and risk-taking

(Brown, 2009).

Besides, the neurotransmitter Norepinephrine is also determined in the literature to be related to attention and excitement (Barkley, 2013). It is considered that low amounts of these two neurotransmitters being present in an affected individual contribute to the symptoms of ADHD. The precise reason as to why these two neurotransmitters might be reduced, however, is still not understood and research into this question is ongoing (Faraone & Buitelaar, 2010).

2.4. How is ADHD Diagnosed?

Diagnosing ADHD is a thorough process involving several comprehensive stages, interviews, and scales. According to DuPaul and Stoner (2003), the criteria used in diagnosing ADHD by physicians; however, school staff require to be aware of the procedures involved in the diagnosis. Furthermore, they emphasize that the role of the teacher includes being the first to identify and diagnose the symptoms associated with ADHD. Besides, teachers should also act as the referral agent following the five-stage screening process, which is school-based. Rief (2003) also notes the importance of referring to historical records associated with a child suspected of having ADHD to identify a pattern of symptoms associated with the disorder. Consequently, the scales utilized in this process are only one of several steps in identifying ADHD in a child. The complete process requires all stakeholders to work closely together, including parents, teachers, psychologists, and other professionals involved with the child.

2.5. DSM-5 Diagnose Criteria for ADHD

Diagnoses can be made before a child is seven years of age if the symptoms of ADHD are exhibited for a minimum of six months (CHADD, 2020). Evaluating ADHD involves a broad set of initiatives and several scales. Amongst these popular scales are the DSM-IV and the Conner rating scale, which are intended for use by teachers and parents. The evaluation process does not only include filling out the scales, but also includes observations of the child and conducting interviews with parents. DuPaul and Stoner (2003) noted the importance of preventing biases from being shown in the scales of interviews. Also, the child was observed across a range of environments to establish an accurate case diagnosis.

Inattention: In describing the symptoms of inattention being assessed, six or more of the following symptoms must be evident in a child up to the age of 16 or five or more for

adolescents of 17 years or adults, and they must have been evident for six months or longer:

o   ADHD children usually fail to pay close attention to details, also, commits careless mistakes in schoolwork, at work, or with other activities.

o   Often show trouble maintains attention on tasks or plays activities.

o   Sometimes do not listen when spoken to directly.

o   Often does not follow instructions and fails to finish schoolwork, chores, or duties in the workplace (e.g., loses focus, side-tracked).

o   Often has trouble organizing tasks and activities.

o   Almost avoid, dislikes, or is reluctant to perform tasks that require mental effort for a long time (such as schoolwork or homework).

o   Often lose stuff necessary to finish tasks or activities (e.g., school materials, pencils, books, tools, wallets, keys, paperwork, eyeglasses, mobile telephones).

o   Is often easily distracted

o   Is often forgetful in daily activities.

Hyperactivity and Impulsivity: In describing the symptoms of hyperactivity and impulsivity being assessed, six or more of the following symptoms must be evident in a child up to the age of 16 or five or more for adolescents of 17 years or adults and they must have been evident for six months or longer:

o   Often fidgets with or clap hands or feet or squirms in seat.

o   Often leaves seat in situations when keeping seated is quite expected.

o   Often run about or climb in situations where it is not suitable (adolescents or adults may be limited to feeling restless).

o   Often cannot play or participate in leisure activities quietly.

o   Is often "on the go" mode as if "driven by a motor."

o   Often talk excessively.

o   Often blurt out the answers before a question has been completed.

o   Often has trouble waiting for their turn.

o   Often interrupt or intrudes on others (e.g., butts into conversations or games)

Furthermore, the following set of conditions must also be established and observable:

o   Several inattentive or hyperactive-impulsive symptoms can be detected before age 12 years.

o   Many symptoms are displayed in two or more settings (such as at home, school, or work; with friends or relatives; in other activities).

o   There is quite clear proof that the symptoms interfere with or reduce the quality of social, school, or work functioning.

o   The symptoms are not mixed up with another mental disorder, such as a mood disorder, anxiety disorder, dissociative disorder, or a personality disorder. The symptoms sometimes happen during the course of schizophrenia or another psychotic disorder.

ADHD is considered to be present when the characteristics of ADHD-related symptoms are observed to be above the normal range of severity (Wender, 2000). (Rief 2003, p3) has defined ADHD as a neuro-biological behavioral disorder; that is characterized by chronic and developmentally inappropriate degrees of inattention, impulsivity, and, in some cases, hyperactivity. As such, a deficient level of neurotransmitters present in an individual is seen as causing ADHD. Wender (2000), explains that this deficiency contributes to the level of efficiency of brain activity with regards to essential functions, including the regulation of impulsive behavior and attentiveness in individuals with ADHD.

2.6. Biomedical Discourse

Deficits in behavioral patterns and inhibitions, as well as deficits in attention, are central to ADHD and are caused by neurological dysfunction (Bener et al., 2006).

These deficits have been linked using neuroimaging techniques and other scientific methods. These disorders are linked with notably low levels of neurotransmitter activity in the frontal lobes of the brain. The frontal lobes of the brain control and regulate brain impulses and the direction of attention. It is believed that genetic causes are responsible for 70-95% of cases of ADHD (Barkley et al., 2017).

Pharmacogenomics studies have, in addition to the evidence correlating ADHD's origins to some form of innate biomedical dysfunction, also established justification for pharmacological interventions in treating ADHD (Visser, 2005). Pyscho-stimulants, including methylphenidate and amphetamine, are claimed to increase the central nervous systems arousal. Indeed, there have been some reports demonstrating improvements in behavior, attention, and concentration within the classroom exhibited by children with ADHD. In contrast, however, improvements in academic performance have seen mixed results (Sherman et al., 2008). Furthermore, observations have been recorded of positive effects on the relationships between children with ADHD and their family members and peers.

2.7. Polemic Concerning the Use of Medication

Using medication to treat the symptoms of ADHD remains a highly controversial topic. This is especially the case when medication is prescribed as the first and, in some cases, the only line of treatment. Amongst the concerns raised by this course of treatment is the question of who benefits from medicating; professionals in the pharmaceutical and medical fields and reap economic benefits, while schools benefit when special needs funding is assigned to a given school that has to SEND children enrolled, including those with ADHD (Solanto et al. 2008). Furthermore, in order to prove that their child's challenging behavior is not a result of their parenting, some parents may seek to diagnose their child with ADHD. In this sense, improved behavior that is achieved through medication being prescribed to an ADHD child could be seen as greatly benefiting the parents and even teachers, more so than the child (Sparrow, 2010). However, in contrast, Bussing (2012) notes, "stimulant medication…operates during school hours…Parents have to deal with the rebound effects of that medication which, incidentally can cause behavior far worse than which the child was originally medicated for. The argument that parents medicate children for their own benefit is ludicrous." This debate outlines the need for additional research into the views. Also, perspectives regarding the medication of parents and

their children.

It has been argued that the use of medication is being adopted as a form of social control, with the risk that medication is being prescribed to children who do not meet the diagnostic criteria for ADHD and to be assigned such a course of treatment (Sparrow, 2010).

Various adverse effects have been noted by those who criticize the use of medication to treat ADHD. Perhaps the most common side-effects of medication are headaches, abdominal pain, loss of appetite, difficulties sleeping, rashes and itchy skin, depression, nausea, mood swings, tics, and the rebound effect (Aman et al., 2004). According to DuPaul, side effects "are relatively benign and are more likely to occur at higher dose levels." Long-term side effects can include the height and weight gain suppression. Aman et al. (2004) also noted that "growth retardation is not a significant risk factor, although in some cases children under ten years of age show a transient decrease in weight and slight growth slowing, which later normalize." These noted issues highlight the importance of closely monitoring all medication and their positive and negative effects.

2.8. Polemic Concerning the Use of Behavioral Treatment

Several research studies have focused comprehensively on the application of medical and behavioral treatment schemes for children diagnosed with ADHD. Rief (2003), for instance, notes that the most extensive such study was the Multimodal Treatment Study of Children with Attention-Deficit Hyperactivity Disorder. This study focused on identifying if behavioral treatment only or medical treatment only were the best treatment courses, or if a combination of the two was most effective in achieving desired positive outcomes. It was concluded by the study that a combination of both forms of treatment combined with the participation of teachers and parents resulted in the best outcomes.

In a further study conducted by the National Institute of Mental Health, (cited in Kewley 2005) in 2011, explored the use of medication to treat children with ADHD. In this particular research study, the cases of 60 children with ADHD were explored. Each of these children was, at some point, treated with both psychosocial and medical interventions. It was found that there was a minor academic benefit to the children as a result of their treatment programs; however, the most significant improvements were in boosting self-esteem and enhancing social skills. Importantly,

it was concluded in this study that adopting medication while failing to monitor the effects adequately did not result in a reduction of ADHD symptoms.

2.9. ADHD Different Types

Rief (2003) states that, there are two primary forms of ADHD; the first being inattentive with no hyperactivity symptoms and being referred to as ADD, and the second exhibiting hyperactive/impulsive symptoms and being referred to as ADHD. Children with the second type often struggle to manage their behavior and are often impulsive, which is a behavioral trait that is actually quite normal at certain ages. However, when the impulsive behavior becomes exaggerated beyond the reasonable bounds for a child's age group, ADHD has to be considered. Building upon the above, DuPaul and Stoner (2003) propose a third form of ADHD, which they refer to as a combined type. This presents itself when an individual exhibits at least six inattention criteria and at least six hyperactive/impulsive criteria.

2.9.1. Co-existing Disorders

Furthermore, there are a number of comorbid disorders that are commonly associated with ADHD. Rief (2003) states that comorbid disorders affect as much as two-thirds of children with ADHD. Kewley (2005) notes that amongst these comorbid conditions is the Oppositional Defiant Disorder (ODD), which affects as much as 40-60% of children with ADHD, while others describe ODD as "recurrent pattern of negativistic, defiant, disobedient, and hostile behavior toward authority figures" (Wender, 2000). Furthermore, Mash and Wolfe (2005) observe greater severity of ADHD accompanied by ODD when a Conduct Disorder overlaps with ADHD. Conduct Disorder includes a combination of extreme behaviors, such as drug abuse, criminal activity, adultery, violating various rules and regulations as well as anti-social behavior in school or the broader society. Waschbusch (cited in Mash and Wolfe 2005) states that 30-50 % of children will progressively have Conduct Disorder.

Learning disability is another common comorbid disorder that is often found to co-exist with ADHD. According to DuPaul and Stoner (2003), "Averaging across studies, approximately one out of every three children with ADHD was found to have a Learning disability (M=31.1%; Median=27%)." However, the relationship between learning disabilities and ADHD is a complicated issue, which is compounded by the general observation that ADHD is typically

associated with underachievement, yet understanding precisely why and what the underlying causal factors are is very difficult. In general, it is believed that a child with ADHD experiences specific characteristics that can obstruct the receiving and retaining of knowledge in the classroom as well as other settings. Consequently, the link between ADHD and learning disabilities might be misdiagnosed in at least some instances. Resnick (2000) refers to 'mimicking disorders,' which refers to the co-morbidity of ADHD and other disorders, which the clinician needs to be aware of (see Appendix 10 for a complete list of ADHD co-existing disorders).

2.10. ADHD Student's Abilities and Academic Performance

As noted above, a child with ADHD is at risk of academic underachievement in school. Once again, DuPaul and Stoner (2003) note that "the association of ADHD with academic underachievement: up to 80% of children with this disorder have been found to exhibit learning and/or achievement problems." Such underachievement at school can also result in further challenges both at school, such as being expelled, and in later life, such as unemployment.

Rief (2003) states that a child with ADHD is more likely to have to repeat classes at school as a result of the absence of skills required for academic success, such as fine and gross motor skills, language difficulties, attention span, problem-solving skills, organizational skills, and communications skills, amongst others. Handwriting, for example, can be problematic for children with ADHD. Wender (2000) establishes the point that a child with ADHD may very well have a standard or even high IQ; however, the behavior challenges such a child faces can interfere negatively with the obtaining and retention of knowledge as well as other academic achievements restricting or undermining the student's academic development. Therefore, as Barkley (cited in DuPaul and Stoner 2003) points out that children with ADHD have a shortfall in performance and not a lack of ability.

2.11. Impact of Teacher's Awareness and Attitude

The knowledge of ADHD and its symptoms held by teachers, as well as their misconceptions about the disorder, have a significant impact on the education of affected students. A study by Arcia et a. (2000; cited in Barkley, 2005) conducted a survey on teachers' knowledge of ADHD and found that most teachers assessed had a reduced level of understanding of the disorder and

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also held misconceptions regarding the adverse effects the disorder and even interventions can have on a student's academic progress.

In a further study, Kos et al. (2004) found that the knowledge and understanding of ADHD held by teachers can significantly affect the way in which they teach children with the disorder, often resulting in holding back the child's academic progress. O'Regan (2006) goes a step further and notes that children with ADHD experience the disorder and its impacts in stages. These stages follow a particular pattern; phase one is the 'I can't learn, but I want to,' which evolves into phase two, which is the 'battered and bruised' phase experienced as the student grow older, wherein both teachers and parents are often seen by the student as the perpetrators. Phase three is the 'I won't learn, and I don't care' phase, which occurs when an affected child becomes disenfranchised to such a degree that they ultimately 'give up' on their mainstream academic pursuits.

2.12. Active School, Classroom, and Parent Practices in Dealing with ADHD Students

It is imperative to identify ADHD and intervene at a younger age. ADHD is usually diagnosed when a child is in elementary school, which is a consequence of the changing nature of teaching in contrast to earlier schooling, wherein a child is now expected to demonstrate greater discipline and be able to study more independently (Rief, 2003; DuPaul & Stoner, 2003). Cooper (2008, p20) states that "through appropriate whole-school approaches to the prevention and management of ADHD, schools can improve their ability and provide successful intervention practices needed to meet the academical and emotional necessities for children with ADHD and others with learning difficulties."

Accordingly, treatment from one patient to another can vary, with some researchers claiming there are two approaches to treatment: behavioral therapy and medication, and sometimes both combined (Barkley, 2013). Usually aimed at children, behavioral therapy emphasizes on improving the management abilities of an affected child. For example, this might mean developing proper routines and reward systems, as well as involving parents and teachers in different schemes, which is essential (Brown, 2009).

Kos (2004) evaluated school responses to children with ADHD and found that specific characteristics were valid, including leadership, communication of values and inclusion policies,

as well as integrating parents and members of the broader community into any intervention plan. They also found that improving the understanding of ADHD amongst teachers and other stakeholders was critical in achieving positive academic and developmental outcomes for affected children. Moreover, distinguishing between ADHD and lousy behavior was identified as also being very critical to success. Besides, differentiated and well-developed teaching strategies were found to be very useful in assisting affected children in reaching their developmental goals. Adaptation of school systems, in particular assessments, was also noted as a decisive factor, as was a collaboration between stakeholders to ensure that everyone involved in the child's development and learning journey clearly understood progress and how to continue to develop the child.

2.13. Researches Demonstrated on ADHD

2.13.1. Worldwide Studies

Researchers throughout the World have studied ADHD, with some declaring that the US and the UK, in particular, have demonstrated the prevalence of ADHD inside classrooms (Rief, 2003). In some countries, as much as 35% of children who are diagnosed with ADHD do not finish primary schooling. As many as 25-35% of teenagers with ADHD are found to exhibit problematic anti-social behavior (Rief, 2003). This can often lead to engagements with juvenile courts and various conduct disorder charges being filed against them.

2.13.2. Arab Region Studies

Although several published research studies are exploring mental health issues in general within the Arab World context, there is limited literature on ADHD specifically.

As per Osman and Afifi (2010), who scanned for psychological wellness distribution through PubMed search from 1989 to 2008, 192 studies in the Gulf Cooperation Council (GCC) in the previous 20 years were identified. They recommend that the UAE has the broadest research in the field of emotional wellness and that the majority of the diaries were conducted in the UAE. Their investigation started a general hunt on psychological wellness articles in the GCC nations. This examination arranged an exhaustive inquiry to discover any investigation that explicitly addressed ADHD. Three diaries about ADHD in Oman were identified. One investigation was undertaken in Saudi Arabia and another in Qatar going back to 2006. Bener et al. (2006)

expressed that the commonness of ADHD was discovered to be higher in the UAE than in other GCC nations.

An examination by Farah et al. (2009) explored past research studies on ADHD. They looked from 1966 to the present and discovered 12 articles that examined ADHD in various Arab nations, for example, Egypt and Palestine. They reported the pervasiveness of ADHD in these countries, but their research also found that this was a topic that had been underexplored throughout the Arab World. Consequently, further research into this topic was highly recommended by the researchers.

Another examination in Tunisia conducted by Bouden et al. (2004), referred to in Al Banna et al. (2008), found that 44% of students with ADHD also exhibited comorbid Conduct Disorder. In this manner, co-morbidity was seen as being worthy of research as it can prompt Conduct Disorder issues, which in turn can result in wrongdoing and time spent in juvenile detention facilities.

2.13.3. Researches Examining Social Effects

Most studies that were identified sought to identify the prevalence of ADHD in school-aged children. However, no research was found to explore intervention plans or their impact on children with ADHD. Indeed, one of the more fascinating studies was conducted in four juvenile detention facilities in Abu Dhabi, Dubai, and Sharjah. The study aimed to highlight the prevalence of the disorder but not exploring any of the mechanisms that can be situated. It was to accommodate for the disorder and improve the learning and developmental outcomes of affected children. The primary focus of that particular research study was to identify any correlation between Conduct Disorder and emotional as well as social life disorders. The study found that most of the 77 children included in the study were living with a single parent and that the parents typically had a low level of education and income / were unemployed (Al Banna et al., 2008). The researchers did not explore ADHD in there study extensively; however, they did note how important it would likely be to provide more attention to ADHD in early childhood in order to avoid Conduct Disorders.

Besides, some journal articles and studies that explored ADHD in the GCC drew parallels between the growing social and economic development experienced by these countries and the

prevalence of ADHD (Osman et al., 2010). More specifically, several factors were identified, including changes to family structure, an order of birth of siblings, and impaired social unity. However, other researchers noted that social correlations might not be so obvious. Jensen 1997 (cited in Al Sharbati 2003, p.46) refers that ADHD "...maybe a disorder of adaptation". Al Sharbati et al. add that there is little known about the correlation between a rapid shift in societies and the emotional effect of modern life on children with ADHD. Additionally, Eapen et al. (2003), conducted a study in Al Ain, UAE, and identified some linkage between rapid social change and mental health problems amongst school children.

Ultimately, the literature does not provide a complete or convincing argument regarding the link between rapid social change and ADHD prevalence in the Arab World. Some studies found individual-specific linkages; for instance, research conducted in Qatar showed the correlation between divorces or multiple marriages and hyperactivity in children (Bener, 2006). However, in contrast, Al Mulla. (2008) found a higher correlation of cases of ADHD with single-parent families rather than a link to multiple marriages. Moreover, Al Sharbati (2008, p.265) declares his research contributes to the debate on "...whether ADHD is triggered by modern lifestyles or is neurogenically determined". No evidence indicates that scientists investigate ADHD due to external factors, and what is quite known from literature is that ADHD is a neurological disorder.

2.13.4. Social Beliefs and Stigma

Moreover, another angle explored by journals is social shame related to emotional well-being issues. The absence of attention to psychological wellness and the associated social disgrace can contribute towards avoiding treatment. Studies in the Gulf have demonstrated that many families believe it is appropriate to raise their children with strict and even aggressive discipline. Additionally, they may allude to the conventional recuperating framework asserted by Al Adawi et al. (referred to in Al Sharbati, 2010). As per Eapen et al. (2003), there is clear evidence of extensive social disgrace in ignoring the issue as opposed to looking for clinical help. The deferral in discovering treatment can result in adverse side effects of compounding the issues that result from ADHD. Subsequently, the need for more researchers is essential right now in the world for the purpose.

The current examination will add to past research conducted explicitly in the Arab world and

specifically on ADHD. Notwithstanding understanding co-morbidity as referenced above, there are different variables worth examining. The most significant one is educators' information and misdiagnosing the issue, a mistake made more likely by an absence of studies on the topic in the Arab World. Likewise, overall examinations as per Sherman et al. (2008) have discovered an absence of research on educators' limited knowledge about ADHD and the impact on ADHD children's academic achievement. In this research, a case study will explore this topic in a private school in Sharjah.

Chapter 3: Methodology

3.1. Introduction

As a result of advancements in exceptional education researchers, there is now a range of approaches available to the researcher, which are drawn from several disciplines, such as medical traditions, educational psychology, sociology, and anthropology (Horner et al., 2005). In this research, a qualitative approach has been adopted to grant a thorough, insightful, and contextualized understanding of the research topic (Mertens & McLaughlin, 2004). In sharp contrast, a quantitative approach, which is amongst other things based on experimental and survey-driven research, would provide data reliant on statistical analysis but would lack insight. Insight is often best achieved by conducting interviews and focus group sessions, as explained by Creswell (2009), who maintains that "qualitative research occurs in a natural environment which allows the researcher to 'get a feel' for the educational setting." Furthermore, Mertens and McLaughlin (2004) note that direct interaction can be obtained through in-person engagements with key stakeholders, such as teachers, parents, children, and administrators in this study.

In addition to adopting a qualitative research approach, this study is built upon multiple case study methodology. It explores the attitudes of primary teachers towards children with ADHD as well as their awareness of the disorder. Also, how this impacts on the academic performance of such children. This includes a review of the implementation of the UAE's 'Schools for All' initiative and the attitudes towards this scheme held by the staff at one Emirati primary school.

This chapter provides an overview of the methodology adopted for this study, including the different research tools utilized and their purpose. The final section of this chapter addresses the research limitations as well as ethical considerations, which have been maintained throughout the research.

3.2. Research Design of the Study

The focus of this research study is the attitudes held by teachers towards inclusion in mainstream classrooms of students with ADHD at a private school based in Sharjah, UAE. The research is conducted using a qualitative approach, which has been adopted to ensure a high standard of validity and reliability of data. The research focused on a case study of a male child in grade five, who is given the pseudonym 'Ali' for the purpose of this study to maintain his anonymity.

Observations were made both inside and outside of the classroom. Semi-structured interviews were conducted with key stakeholders, including the child himself, parents, and teachers, as well as key staff at the school, including the social worker and section supervisor. The primary investigative focus of this section of data gathering was to identify the obstacles that restrict the level of success of including children with ADHD inside mainstream classrooms.

Creswell (2008) notes that qualitative data is primarily utilized in social science research to observe and analyze social interactions, processes, and systems. This approach is useful in developing insight and a deep understanding of how participants understand, react to, and manage their behavior in particular settings. Moreover, Gomme et al. (2000) observed that using different tools to collect data, such as interviews and observations, is a notable advantage and strength of this approach. It enables the researcher to establish robust evidence to support conclusions and research findings to answer specific research questions.

Respondents will be selected from an American private school based in Sharjah, UAE, which have children with ADHD enrolled. The respondents will participate in a semi-structured interview in line with the qualitative approach of this research. The views and attitudes of these respondents will be investigated during these semi-structured interviews, and the opportunity is given to the researcher to obtain sufficient insight into the research topic. In particular, the factors driving these attitudes will be analyzed as will the obstacles that teachers face when teaching children with ADHD and which ultimately shape their perceptions towards inclusive education. Besides, class-based observations of the children with ADHD enrolled in the case study school's mainstream classrooms will be utilized to develop the research further.

3.3. Research Sites

The case study setting is that of a private American curriculum school in Sharjah that opened in September 2015. The school is located in a neighborhood that is populated primarily by local Emirati citizens, with a small number of Arab and Asian expatriates also resided in the area. The school's student population closely reflects this demographic structure, with 85% of students being Emirati citizens, just 10% Arab expatriates, and the remaining 5% being non-Arab expatriates. The grades catered for by the school run from kindergarten to Grade 12, with a higher percentage of enrolled students registered in the kindergarten and primary school levels.

Up to and including Grade 3, the school offers mixed-gender classes, whereas students starting with Grade 4 upwards boys and girls students are segregated into same-sex sections with separate supervisors. Figure 1 below illustrates the school's SEND Department organizational structure.
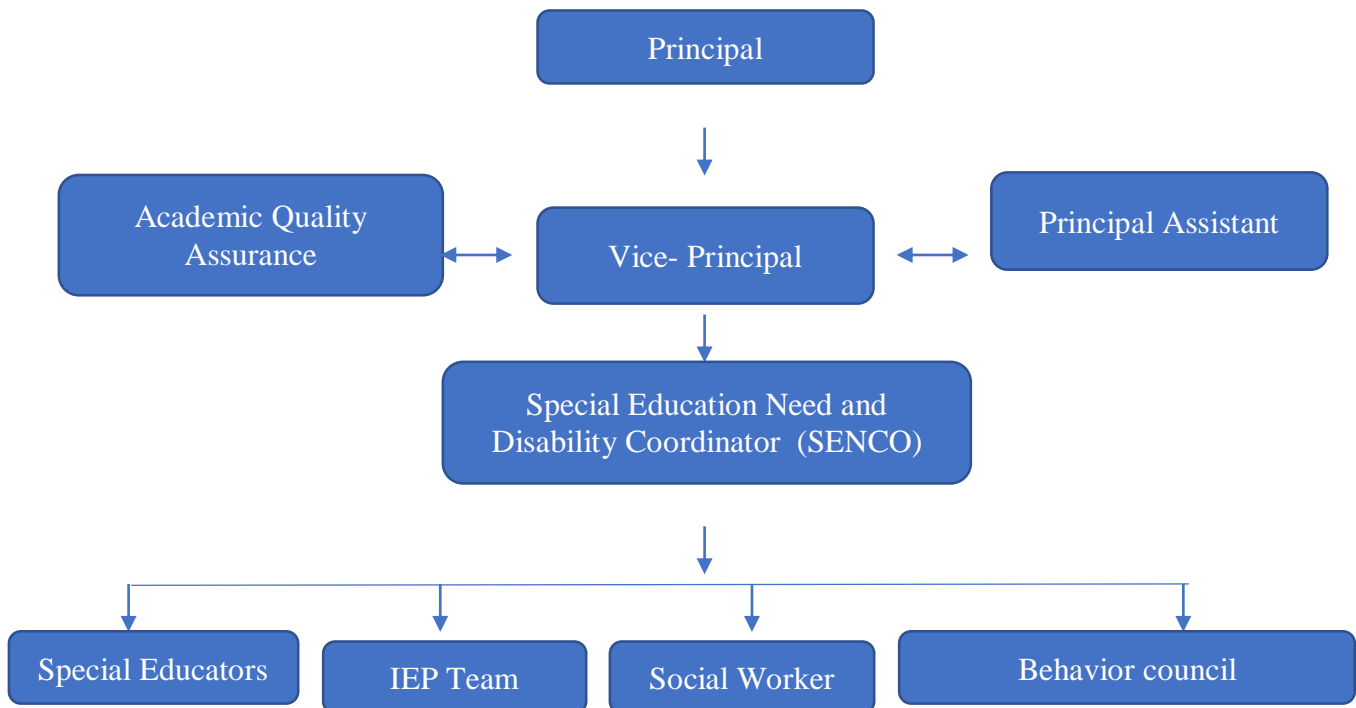
Figure 1: The Organizational Structure of the SEND Department in the American School

The school's Special Education Need and Inclusion Department accommodate children with disabilities, including ASD, ADHD, Down Syndrome, as well as others with learning difficulties, for instance, Dyslexia, Dysgraphia, and Dyscalculia. Furthermore, the school's curriculum was developed to align with each student's specific learning and development requirements, including for those with special needs. The teaching staff, however, have not had specialized training in SEN. Despite this, the school continues to strive for inclusive education and to provide the best education possible for every child enrolled at the school. The school offers a wide range of assistive educational services, including pull-out sessions, learning support, and a series of modified learning resources.

3.4. Case Study

The research design incorporated a case study in order to explore and analyze the intervention process with a particular child. He has been diagnosed with ADHD at school. As this researcher also works as the SENCO at the case study school, this allowed for the research to be conducted with greater efficiency. As Yin (2012) notes, "an in-depth inquiry that investigates a contemporary phenomenon within its real-life context." Furthermore, the researcher also enjoys a positive relationship with both the student, his parents, and the teachers involved in the child's education, making the flow of information more open and honest.

As classified by Yin (2003), case studies are a mix of either exploratory, descriptive, and explanatory. In this research, the case study can be classified as illustrative as its primary focus was to identify the function and impact of intervention with a child diagnosed with ADHD. Many researchers have noted how vital the attitudes and beliefs of teachers towards disabilities is on the achievement of affected students, further encouraging this researcher (e.g., Jussim & Harber, 2005; Madon, Jussim & Eccles, 1997).

3.4.1. Description of Ali (The Study Case).

At the time of this research, the case subject student, Ali (pseudonym), was nine years old and enrolled in Grade 5. Ali is a vivacious child, with much energy and is continuously moving and engaging with his environment during the transition periods and break times. All of his teachers have identified that he is very impulsive and often speaks without raising his hand or asking for the teacher's permission during class time. Furthermore, Ali very often wants to leave his classes with no sound reason, usually provides feeble excuses to justify his departure. Consequently, almost all of his subject teachers have reported to Ali's parents that they are not satisfied with his performance and that he is not meeting expectations. denSamph's study (1976, cited in Wragg, 1999) established that the expectations of teachers on their students are always high, whereas the teachers' attitudes change should a student's performance deteriorate. In Ali's case, this negatively impacted his self-esteem, discipline levels, participation, and commitment to learning in most, but not all, classes.

Ali avoids mingling with his peers, except one child who considers Ali to be his friend and treats him as such. Ali prefers to spend his time by himself and playing alone, which was evident

during break time observations. His grades are particularly low in language subjects (Arabic and English) and especially in reading comprehension and writing skills. He also struggles to complete tasks and submit his schoolwork on schedule, although this is less evident when he is given specific tasks to complete by his teachers or the section supervisor. Ali enjoys swimming and has been vocal about how he wants to become a professional and successful swimmer in his future.

Ali's grades are average, and his performance seems to be matching with his grade level in Math subject, which indicates that he has on average IQ level, and this is what was mentioned in his Educational Psychology Report. Such a report should be submitted to the school as one of the MOE Report provided by the parents to the school. It is one of the required documentation when joining this school. In this report, there has been informative information about Ali's cognitive abilities, speech, and communication, physical abilities, social and emotional issues. It also includes recommendations as guidelines that are very useful for teachers and parents to support the child socially, emotionally, and academically. More details were elaborated in the report; therefore, the report is attached to the appendices for further information about Ali.

 As an ADHD child, Ali showed that he couldn't sit still in his seat for more than seven to ten minutes, as per his teachers and which was confirmed in his psychology and Education report. Ali has been clinically re-tested at one of the authorized centers in Sharjah city, and an updated report was initiated in August 2019 (Appendix 11) as per school requirement that reports should be updated every year. He has been diagnosed as an ADHD child who shows poor short-term attention and can maintain focus for approximately 10 minutes only. Practically, this is the estimated time he could stay alert while administering the test in the average range, and as mentioned in the report. However, Ali had become both inattentive and impulsive when the evaluation lasted longer to 22 minutes. Besides, signs with hyperactivity were observed by the psychologist and the ADHD diagnosis that reinforced by Ali's Reaction Time (RT) and Processing Speed Score (PSS). As for Ratings between parents and teachers, Ali showed similar findings of cognitive, behavioral, and emotional impulsiveness at home and in the school. Also, the level of anxiety he is experiencing is high in comparison to other children at the same age.

3.4.2. Observations

In order to minimize the effect of the researcher, observations were carried out on a non-participant basis (Bierer et al., 2003). These observations were conducted in relation to Ali, who is a male student who has been diagnosed with ADHD and is enrolled in Grade 5. Ali was observed over the course of three weeks across different settings and at various times throughout the school day. This was done in order to acquire as much breadth of observation as possible and to gather as much variation in data regarding his behavior and interactions with his environment as possible.

Observations are a crucial research tool allowing the researcher to obtain significant and relevant data relating to the verbal and non-verbal interactions between the subject and their environment (Wragg: 1999, p2, Good and Brophy: 2002, p2).

3.4.3. Interviews

The directed conversations in this study were channeled by a flexible set of questions covering specified topics that function as critical factors and are essential in shaping the teacher's awareness of ADHD, as well as their attitude towards students diagnosed with ADHD and the related teaching-learning process. The interviews sought to elicit the comments of teachers in relation to the research topic, with questions being presented in a consistent manner, and participants encouraged to express their views and ideas as openly as possible. On occasion, participants would add additional comments that they thought were pertinent to the research, and this other data was recorded accordingly, as advised by Borg (2015).

The purpose of this flexible sequence of questions was to encourage and stimulate as much discussion as possible between the researcher and the participants, without guiding the participants or shaping their responses, as recommended by Kvale (1983). As advocated by Mangubhai et al. (2004), prompts and follow-up questions were utilized were relevant to request participants to further elaborate upon their initial responses to questions, which proved very fruitful in obtaining also and more in-depth data.

3.4.4. Focus Group

Six teachers were involved in a focus group discussion, including the Arabic, English, Islamic and Social Studies, PE, Art, and Special Educator. The focus group was conducted to investigate

the teachers' views regarding ADHD and the current system established at the school to address the teaching requirements associated with children with the disorder. The focus group meeting was conducted in the English language. Each teacher had the opportunity to provide their views and express their ideas about the topic. Prior to the meeting, permission was sought and obtained from the school administrators and the participating teachers themselves. The setting for the meeting was the SENCO's office, with teacher schedules being checked for availability in advance of sending out invitations.

Robson (2002) describes the focus group approach as a useful method for conducting qualitative research as it enables the gathering of research data from a number of different participants simultaneously. Focus groups allow a clear picture to be generated of what significant ideas are held by participants concerning a specific topic and which of these are shared amongst the different participants. Furthermore, Kreuger and Casey (2000, cited in Ritchie & Lewis, 2003) note that focus groups provide the advantage of a natural setting for participants to interact with each other and share their comments.

3.5. Ethical Issues

Permission to conduct the research as required and obtained at the outset of this study, even though the researcher is employed at the case study school as a SENCO. Initially, permission was sought and obtained from the Head of School, who also approved the observation and interview schedule. Furthermore, to minimize disruption to other staff members, the researcher conducted inspections while on the program as the SENCO. The purpose of views was kept as general as possible within the focus of the research topic. Sam (1976 in Wragg, 1999) noted that both students and teachers could modify their behavior when they are aware that a third party is observing them, and this must be limited as much as possible.

Anonymity and confidentiality were assured to all participating parties. Names were not recorded or deleted, and where a signature was required to identify participants, pseudonyms were used. All findings were made available to the participants once the data had been collected and analyzed. The approval was sought along with the signatures of each participant. An observation report was completed during the observation sessions and immediately reviewed with each relevant participant to ensure that no data was lost. Semi-structured interviews with

teachers all took place after students left the school at 2 pm at which point the teachers were available to meet. All interview timings were agreed in advance to ensure that each participant was not taken by surprise and that they would be possible to achieve.

3.6. Limitations of the Study

All research studies are likely to face some form of limitation, and the results of such investigations must be interpreted while taking into consideration such limitations. This study encountered a number of limitations, which lead to recommendations for further research.

It is conceivable that the teacher's behaviors during the observations were not entirely natural as they were aware of the purpose of the observations and that a report would be written at the end of each session. This might have affected the teacher's instructional choices and modify their behavior to show the best of their teaching methods. Consequently, the researcher believes it might have been beneficial to have a more extended period for gathering observational data, which would have increased the authenticity of each lesson being observed. During the course of this research, only a few observations were conducted, coving English pull-out sessions, Social Studies, Art, Arabic, and PE, as well as break time.

As a result of the child's recurrent absence from school, the observation schedule had to be modified several times. This made it challenging for the researcher who had to balance the observations with other responsibilities related to other school tasks. Furthermore, this study was conducted with a small sample of observations that included only primary school teachers. Therefore, it can be argued that the scope of this research was limited to this specific group, and the findings cannot necessarily be extrapolated to other teaching groups without further investigation. Expanding the analysis to both additional subject teachers and school levels in the same case study school as well as across other schools is highly recommended. This is particularly relevant to expanding the robustness of data gathered regarding teacher attitudes towards educating children with ADHD, as different subjects, teacher levels, and school communities may well have different perspectives to share with the researcher.

Similarly, this research was conducted with just one male child as a case study. There is an urgent requirement to expand the number of case studies, both male and female students (although ADHD is understood to be more prevalent amongst male students), to further develop

the value and applicable relevance of the research findings. Even though female students tend to show lower ADHD characteristics when compared to their male counterparts, the disorder is still highly impactful on these female children, and more research into the role it plays for both genders is critical.

Besides, the small number of participants who were engaged in this research all had relatively similar profiles. This further encourages the researcher to recommend expanding the study to include a more diverse sample of participants and instructional settings in order to establish a more thorough knowledge base relating to the topic and the study findings. This would also enable the proposition of more reliable generalizations and applications for the research findings.

As a result of limited time and resources, as well as the practicality of conducting the research at the given school due to the researcher being employed as the school's SENCO, this study was conducted in just one school based in Sharjah, UAE. It is advisable that the research is expanded to other schools both in Sharjah and across the UAE.

Concerning methodological approaches, the tools utilized for this research, including interviews to elicit verbal commentaries and observations, were conducted based on the extant literature to explore teacher awareness and perspectives of ADHD. The attitudes of these participants towards inclusive education were also examined. However, obtaining accurate views and attitudes of participants is a complicated endeavor, and modification to the research tools is recommended. This would include a broader range of data gathering tools to improve the scope of data. That said, besides, the same tools should be maintained to draw a higher degree of comparability with this and other similar studies (Borg, 2006).

Chapter 4: Research Findings

4.1. Introduction

In order to fully comprehend the impact of ADHD and teachers' awareness of the disorder on an affected child's academic development, interviews, and observations were conducted in this research. Faupel (2003) noted that it is essential to observe the interactions between any child and their school in order to assess any behavioral condition. The interviews and observations are detailed in the appendices. The research findings are summarized below.

4.2. Findings from Interviews

4.2.1. Interview with Ali

The interview held with Ali was conducted at the SENCO's office on-site at the school. The interview lasted 20 minutes while Ali was on a free period due to the absence of his English teacher. Upon being informed of the purpose of the interview, Ali demonstrated significant relief, stating, "I thought I was in trouble and that that was why you called me." This was indicative that he was always under pressure and worried about being misunderstood. Also, it indicates that he has always been blamed for his behavior.

The following questions were presented by the researcher to Ali during the interview.

Q1. The researcher asked him about his favorite subject and teacher, he explained:

Ali said "I don't like English and Arabic subjects. They are challenging, and I can't do the homework because my handwriting is bad, and this is what my teachers told my mother also. That's why my mother shouts at me at home". He added, "But I like PE because the teacher always asks me to monitor the line and help him store the sports equipment at the end of every period. He is always nice to me."

Q2 Researcher: Do you like school, and why?

Ali immediately announced "No," and impulsively answered, "I hate the teachers because they always tell my father things that makes him angry with me."

Q.3 Researcher: What do you feel when you submit your homework on time, and your teachers are happy with you?

Ali stated, "I feel proud of myself, and I want to do this every day. I like it when my teachers say good things to me, but I feel so sad when they call my mother or father when I fight with the other students. Sometimes I don't understand why they get angry with me for only touching my stuff or looking at the door or the window. I like PE and Math teachers because they like me and say that I am a good boy, and I do everything they ask me to do."

Q4. How do you feel when your teachers help you inside the class and give you less work to do?

Ali responded, "Not all my teachers are nice to me, but when they give me small tasks to do, I feel more relaxed, and I am able to do what is required. I feel shy when the teacher pulls me out of the class because the other students make fun of me, and I am weaker than others." (He referred to pull-out sessions)

Q.5 What classes do you enjoy most, and why?

Ali: "I enjoy most PE classes and Math class. I…sometimes enjoy the session with Mrs. Fatima (Special Educator) because she allows me to play computer games on her PC. I like it when the teachers ask me to do tasks in the class and be responsible for things. Also, when I watch videos, as I learn more when I watch it. I don't like it when the teachers make me write a lot because my handwriting is not nice, and this is what they tell me always to write with good handwriting. I don't like Arabic because it is tough, but I like English and watch a lot of English movies and dancing songs, but I do not like to write. I like to dance, and I know how to do this (and he started to make some dancing moves). I feel pleased when my classmates allow me to play football with them during break time, but usually, they don't unless the PE teacher asks them to do so."

Q.6 How long does it take you to finish your homework?

Ali responded, "I do not know…sometimes I get busy and feel like doing something different…Only When the homework is short and easy…if it is on the computer I do it very fast and when the teacher tells me how to do it…I do not do all my homework, so I can't tell you…"

4.2.2. Findings from Interviews with Ali

Ali's English language is excellent, and he can express himself well. However, his eye contact lacks some focus, and he was unable to sit still for long and while providing his answers. His hyperactivity and inattentiveness were evident during the interview, as demonstrated by his taking a stapler and repeatedly clicking, which he did apparently without knowing it. He also shook his leg quite a lot. Ali's impulsiveness was also evident by him asking a number of irrelevant questions during the interview.

Ali also demonstrated a degree of stress related to school chores, and his low social skills were evident by his statement that his classmates typically do not like to play with him unless encouraged to do so by a teacher. When multi-sensory tools are used during classes, Ali has more engagement, which demonstrates how children with ADHD require differentiated learning strategies. These often have to accommodate for the high level of inattention and impulsiveness throughout the long school day. A reduced workload and shorter learning periods will also better support Ali and other children with ADHD, as this will allow him to recharge and expand restless energy before continuing with his learning (Barkley, 2017).

4.2.3. Interview Findings with Ali's Mother

An interview was held with Ali's mother, which lasted for 35 minutes and took place in the researcher's office at the school (see Appendix # 6). A summary is provided here. The questions raised in the interview sought to understand how the teachers' attitudes towards Ali affected his learning and academic performance and whether differentiated learning strategies had a positive impact on her son's development.

Ali was diagnosed with ADHD when he was in Grade 3 and is registered at the school as a SEND student. His teacher at the time noticed that his academic achievement was declining due to hyperactivity and inattentiveness. Moreover, Ali's aunty is a psychologist, and she recommended to his parents that they have him assessed as a result of his reported inappropriate behavior at school and poor academic performance.

When asked to what extent do you think that Ali's teachers are aware of the ADHD disorder and its symptoms, she responded: "not all the teachers know what ADHD really is and how the child

and his parents feel." She added that "it is imperative that teachers know about ADHD and how children with this disorder are treated so there will be less load on parents and the child. The school is the child's second house, and they have responsibilities for children with different abilities."

Understandably, Ali's mother wanted him to be treated like all of his classmates and to receive an education appropriate to his needs. She felt strongly that Ali's teachers should be able to develop appropriate teaching strategies inside the classroom and concerning homework. In particular, she noted that the homework Ali is assigned often not configured to his learning needs, and this presents a considerable burden to the family who struggles to support him when completing these tasks. Also, this negatively affects his self-esteem. She noted, "it is difficult, homework frustrates him, and he loses self-esteem. He will cry saying, 'I am stupid and a failure, I want to be like others.'" Ryan & Deci (2017) argued that, "If children succeed in school, they will develop positive feelings about themselves and believe that they can succeed in life".

Various researchers have suggested misconceptions around ADHD remain, and that affected children, as well as their parents, often feel stigmatized (Moldavsky & Sayal, 2013). It has been found that both children with ADHD and their parents need support and that there should be regular and open communication between the school and affected parents in order to efficiently and successfully address any issues that emerge (Gaad, 2006).

4.3. Interviews Findings with Ali's Teachers

Keegan et al., (2009) stated that the interview tool is a "versatile" approach that has a broad range of advantages, including giving participants the opportunity to openly convey their thoughts and elaborate on their ideas, which allows the researcher to gain deep insights. Mantri (2008) stated that there are two primary forms of interviews: structured and unstructured interviews. Structured interviews involve the researcher preparing a set of specific questions to be presented to the participant and to guide the investigation. Such questions are presented in a designed sequence with no sub-questions emerging. In contrast to the structured interview, the unstructured interviews are defined more by the participants than the interviewer. In such interviews, questions emerge based on the conversation being conducted In this study, structured interviews were conducted with questions designed to investigate the attitude of teachers towards

ADHD and their readiness to integrate affected children in their mainstream classrooms (Appendix # 1). The questions also sought to explore the impact of these attitudes on the child's development and academic performance.

A series of interviews were held with Ali's subject teachers (Appendix # 2,3,4, & 5 are interview samples). These interviews took place on a face-to-face basis in the researcher's office at the school. The interviews were conducted in the English language with the researcher explaining the questions in more depth for those participants whose English language was not very strong. The findings of these interview questions are presented below.

Q1. Do you know what is Attention Deficit Hyperactivity Disorder (ADHD)?

The teachers' responses are displayed in Table 1 and Figure 2. The responses demonstrate that over half of Ali's teachers do not know about ADHD and its symptoms. Three teachers are aware of the disorder to varying degrees. When asked where this knowledge of the disorder came from, the teachers all responded that they had obtained their understanding from other teachers, in which the information they had was confirmed when the researcher joined the school as SENCO. This confirms that there is a need for improving the knowledge amongst teachers about ADHD, its symptoms, and coping strategies. This should include training by professional experts in a formal setting.

Table 1: Frequency and percentage of teachers' responses to Q1

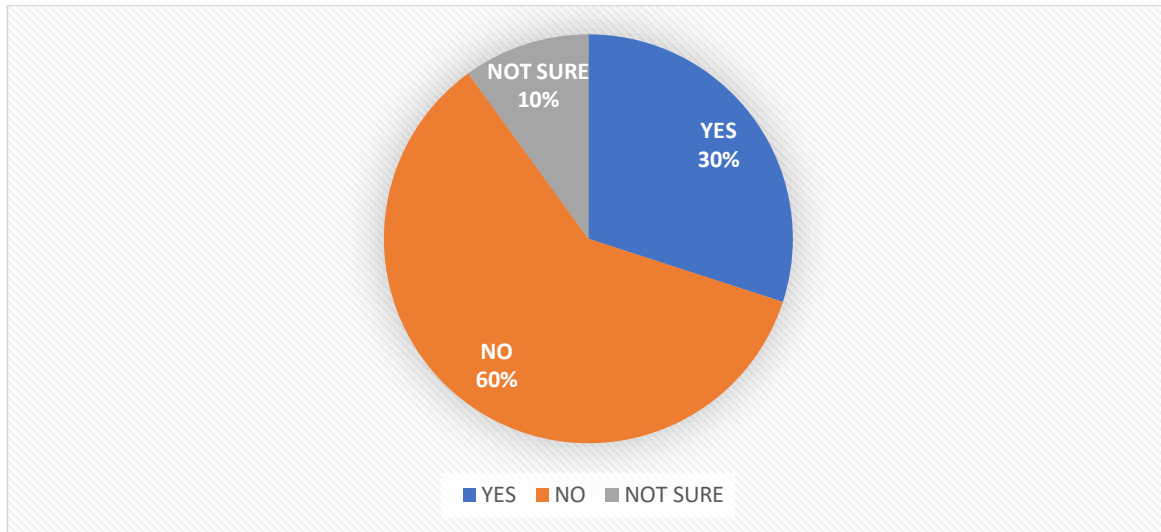| Frequency and percentage of teachers' responses to Q1		
Responses	**Frequency**	**Percent**
Yes	3	30
No	6	60
Not Sure	1	10
Total	10	100.0

Figure 2: Teacher's Awareness About ADHD & Its Symptoms

Q2. Do you think that Ali, as an ADHD child, should be included in the same class setting with the other children who do not have ADHD?

Symptoms

The teachers' responses to question 2 are displayed in Table 2 and Figure 3 below. The majority of teachers (70%) stated that they did not feel comfortable, including a child with ADHD in their mainstream classrooms. They noted that this was because including such a child might result in the other students being distracted and their educations compromised. In addition to the level of disruption that such children tend to enact in class. The teachers also stated that they felt such a child might set a precedence for other children who may copy such disruptive behavior. The lack of training in awareness and intervention strategies possessed by the teachers is evident in these responses.

Meanwhile, 20% of the teachers stated that they are willing to accept children with ADHD, as well as other special education needs, into their mainstream classrooms. Additionally, around 10% of respondents did not have a clear position regarding their views on inclusion in this context. Once again, this reflects a lack of appropriate training and confidence on the part of the teachers.

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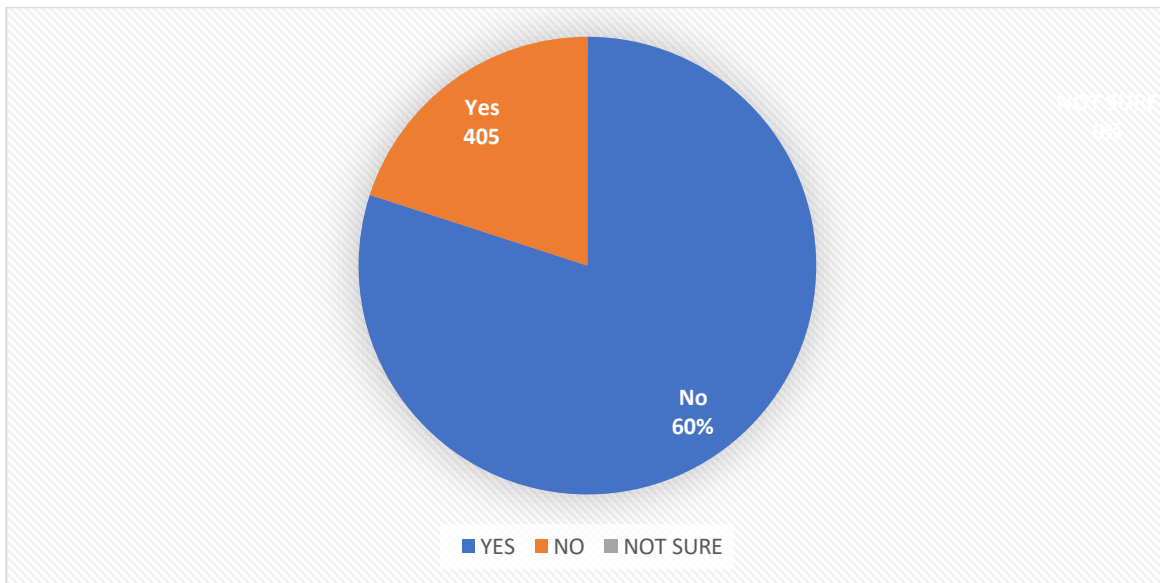| Frequency and percentage of teachers' responses to Q2		
Responses	**Frequency**	**Percent**
Yes	4	40%
No	6	60%
Not Sure	0	0
Total	10	100.0

Figure 3: Teachers' Attitude Towards the Inclusion of ADHD Student in their Classrooms

Q. 3 Do you think there is support for teachers in your school to accommodate students with ADHD?

Almost 50% of respondents felt that their school is providing them with sufficient support to integrate a child with ADHD into their classrooms by having a SEND department. Furthermore,

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the pull-out sessions conducted for ADHD and other SEND students at the school were noted as positive individual learning tactics by many respondents. The social worker's efforts, as well as the number of workshops being run in the school, were also noted as positives. However, a number of respondents who answer "no" represent the view that the individual support provided to individual SEND students is insufficient. Consequently, the load is transferred to the teachers from the perspective of these respondents, which is especially tricky with large classes. Furthermore, such teachers felt that they do not receive sufficient empowerment by the school to be able to develop and implement intervention strategies that deliver the educational services required by children with ADHD. Table 3 and Figure 4 represent this data.

Table 3: Frequency and percentage of teachers' responses to Q3

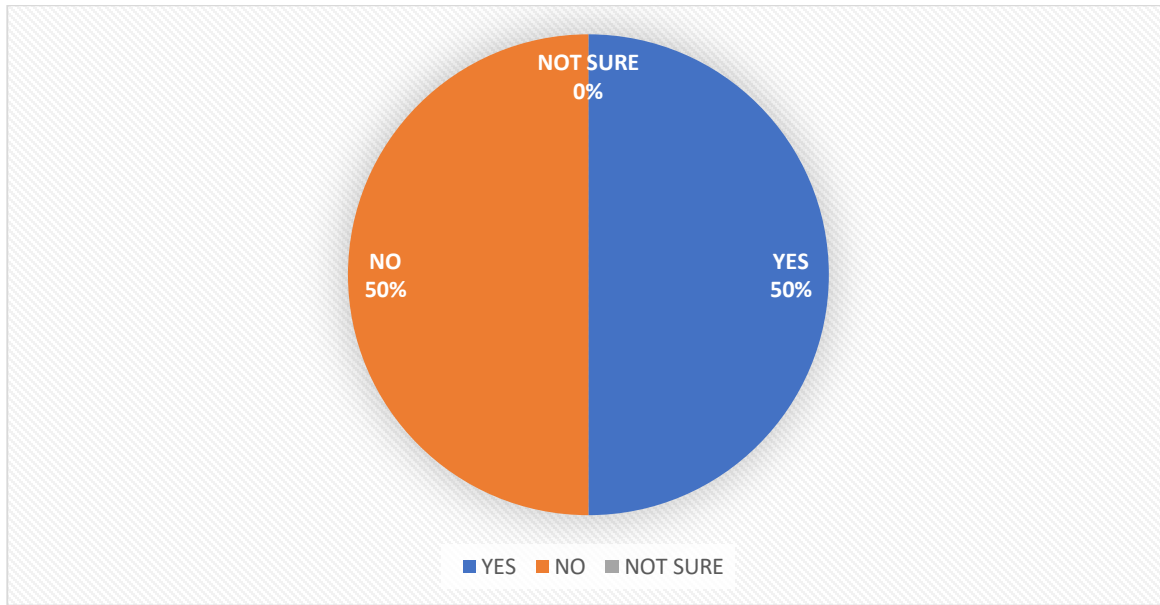| Frequency and percentage of teachers' responses to Q3		
Responses	**Frequency**	**Percent**
Yes	5	50%
No	5	50%
Not Sure	0	0
Total	10	100.0

Figure 4: Teachers' Reflect on the Support the School Offers to Accommodate ADHD Student Successfully

Q.4 Do you feel that your IEP for Ali will support his learning development?

Half of the respondents felt that they were not sure that designing an IEP will result in a positive impact on Ali's learning development. This is demonstrated in Table 4 and Figure 5 below. These respondents noted that Ali is two years below his expected level and that the increased workload required to be able to try and get him back to his peer level was not realistic. Notably, these teachers who demonstrated this uncertainty did not have experience writing an IEP previously, and they were not sure how successful they could be in provision to Ali as a result. The Math, PE, and Islamic subject teachers responded "yes" to this question. According to the Islamic teacher, Ali's instructional level is very close to those of his peers, as this subject requires less written tasks. Therefore, it can be concluded that more training is required for teachers on how to develop and write a successful IEP.

Table 4: Frequency and percentage of teachers' responses to Q4

Frequency and percentage of teachers' responses to Q4		
Responses	**Frequency**	**Percent**

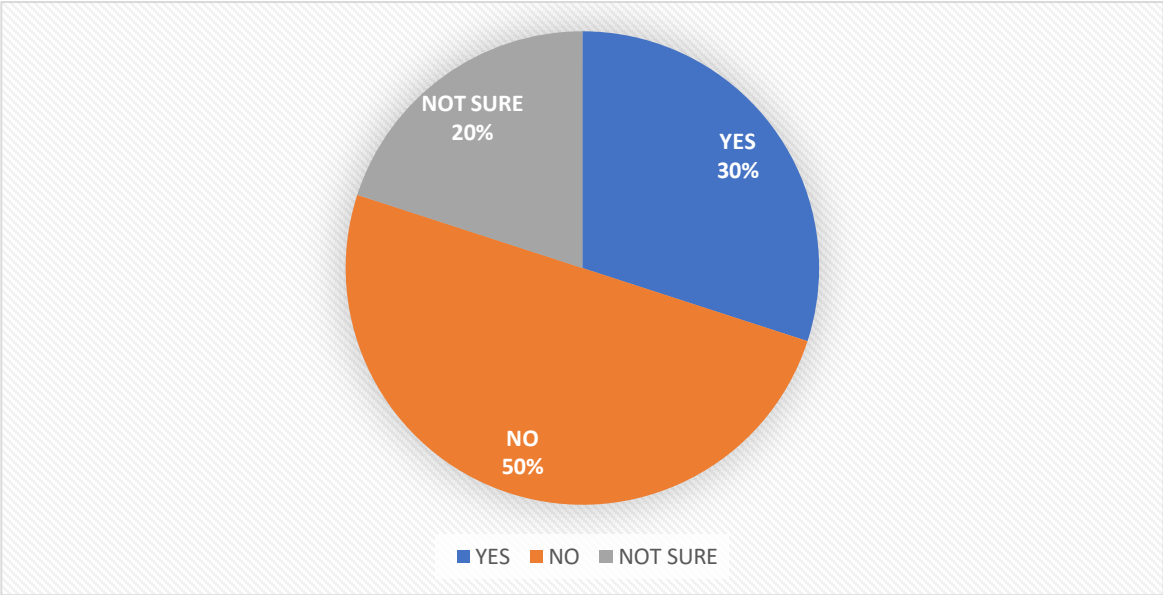|		
Yes	3	30%
No	5	50%
Not Sure	2	0
Total	10	100.0

Figure 5: Teachers' Confidence for Writing an Effective IEP for ADHD Student

4.4. Research Findings from Interview with Learning Support Tutor

The Special Educator who provides Ali with learning support noted that, like other SEND children involved in pull-out sessions, Ali might feel embarrassed in front of his peers as a result of this tactic. This was embodied in one instance where Ali was late to the resource room as a result of an altercation with another student who was mocking him for having to attend pull-out sessions. However, somewhat later, once Ali noticed that these sessions were benefitting him, he began to enjoy them and turned to the individual educator for support when he was facing issues in class or doubts about his lessons. Furthermore, the SENCO, social worker, and the researcher conduct awareness sessions in morning assembly every Monday and Wednesday, which strive to ensure all students understand and accept one another's differences.

The special educator also mentioned that Ali's performance and progress are negatively impacted as the resource room does not have adequate facilities for Ali's needs. It was noted that additional professional development would enhance this teacher's skills to the benefit of Ali and other SEND students. She also noted how important and beneficial the involvement of Ali's parents had been in achieving more significant progress in Ali's education. This has been noted as a significant contributor to success by various researchers, including Rief (2003).

This learning support tutor much appreciated the involvement of Ali's parents and their collaboration with the school. Combined with the program created by the SENCO, this teacher exhibited and declared confidence that Ali's progress would benefit from this collaboration as the year progressed. It was noted, however, that it can be a challenge at times to ensure that parents fully understand the tactics and strategy involved in SEN and inclusion.

Regarding Ali's social and emotional development, the teacher stated that she was quite happy with his progress in general, but that he begins to fidget and lose self-control when he feels pressured. She stated that "when he is given a little bit of work and that work is achievable, emotionally he is quite happy. However, when he gets the pressure, he becomes fidgety and uncontrollable." Furthermore, she described how she breaks down tasks for Ali so that he does not feel stressed or under too much pressure and that this gradually has built his self-esteem and resulted in positive developments in his academic progress.

4.5. In- and Out-Classroom Observations

This research sought to understand the level of knowledge and perceptions towards delivering an inclusive education for a child with ADHD held by teachers (RQ2) and analyze the issues related to education provisions offered to such students in the mainstream classroom (RQ3). Approval was sought from the parents and the school principal to access relevant data, including the child's IEP, psychological and education reports (Appendix 10), and samples of the child's work (appendix 9), observations were conducted in different settings. During these observations, the researcher considered the many points that addressed specific skills, including work habits, social interactions with peers, participation, and involvement with learning activities, behavior, accommodations used, resources deployed, and modification of learning outcomes in line with

the IEP objectives for this child. Some of the observation notes were recorded in MS Word and attached as appendices No 6 & 7.

4.5.1. Assembly Observation

Every morning Ali's father drops him off at school on his way to work in Dubai. Thus, Ali arrives typically early to school when there are only a few other students around. Ali was observed for three consecutive mornings between 7:30 am, and 8:00 am. Before the morning assembly, Ali typically spends time walking around the playground, sometimes alone, whereas, at other times, he follows his classmates. Ali does not pay much attention during morning assemblies and seems to move around a lot in his seat. He regularly has to be prompted by his teacher to sit still and pay attention, which he does for a while before returning to his nervous habits. He typically prefers to stand in the middle or at the end of his class line. However, he is always sent to the front of the line by his teacher. Because the other students become frustrated with his hyperactivity.

4.5.2. Recess-Observation

Ali carries his lunch box during break time to the school canteen, where he proceeds to sit with classmates. During the three-day observation, the researcher witnessed Ali sitting with the same classmate. Once they have finished eating, they tend to chase each other around the school playground. When this child was absent, Ali would play alone. He demonstrated self-control throughout the observation period.

4.5.3. Findings from Outclass Observations

According to Barkley (2013), positive peer relationships and active friendships are essential for a child's development, and this is just as applicable for children with ADHD who tend to have challenging social behaviors. An inability to accurately read and assess a social situation, self-monitor, self-evaluate, and adjust behavior are common challenges faced by children with ADHD. Developing these skills within the settings that these children spend most of their time is very important, which are home and school for Ali. One key challenge affecting Ali's ability to maintain more friendships is his lack of awareness of personal space. As with many children with ADHD, Ali struggles to make and retain friends as well as find acceptance in his larger peer

group. Hyperactivity, impulsiveness, and inattention commonly linked to ADHD are extremely limiting on a child's attempts to connect with other children positively. Although teachers are not hired to diagnose SEN cases, they do have a crucial role in supporting and developing affected children in the classroom, while acknowledging that ADHD may be only one of several challenges facing such children (Kellner, 2003).

Killu (2008) states that behavioral challenges are the most significant problems that teachers face in the classroom, especially for children with SEN. However, none of Ali's teachers have prepared a behavior intervention plan for him. Therefore, developing such additions to Ali's IEP is critical and highly recommended and should explain to what degree his behavior impacts upon his academic performance (Lerner & Kline, 2006).

4.6. In-class Observation Findings

Both the behaviors or events that are to be observed and recorded are defined by designing the classroom observation method (Barclay et al., 2017). In order to practically explore the impact of teachers' attitudes towards inclusive education on the academic performance of children with ADHD, this researcher conducted several classroom observations. These observations took place in English, Arabic, Maths, PE, and Art classes. These were conducted to explore the current instructional practices being utilized by Ali's teachers in order to delineate the practical challenges facing his teachers.

Furthermore, in order to investigate the atmosphere inside the classroom, as well as Ali's learning behaviors and his engagement with on-task and off-task activities, the researcher took records throughout the observations. Ali, as a child with ADHD, demonstrated difficulty maintaining attention for sufficient periods of time to complete tasks. His academic performance, as with many children with ADHD, was compromised by his inability to focus and maintain attention (DuPaul & Stoner, 2003). Concentrating for a meaningful length of time is a significant challenge for children with ADHD, and their academic achievements may be further compromised by their tendency to be disorganized (APA, 2000; DuPaul & Stoner, 2003).

For example, Ali's desk was regularly disorganized and messy, with books being misplaced, and stationery scattered around his desk and even on the floor. Although Ali regularly failed to

complete his classroom tasks across most subjects, this was not the case with Math. His Math teacher had provided him with additional explanations and an appropriate time extension to complete his tasks. Furthermore, the teacher rewarded Ali for completing assigned work, including giving him stars for his book and shirt, sending him immediate thumbs-up signs, and to his parents via class dojo to develop his self-esteem and boost his self-image.

Therefore, this research identified that it is possible for a child with ADHD to be encouraged and to achieve positive results with the right modifications to the teaching style and implementation. The Math teacher confirmed that in-service training, as well as other forms of professional development and self-inquiry into ADHD, had led her to develop a positive attitude towards the inclusion of SEND students into her mainstream classroom. Prasad et al. (2013), noted how research had shown the validity of these strategies in improving children's classroom behavior and academic achievement.

According to Weyandt & Gudmundsdottir (2015), optimal performance can be achieved for children with ADHD when their classroom is highly structured with minimal sensory distractions and with appropriate routines being established. Moreover, Ali, being seated close to the teacher and in the front-center of the classroom, is also evidenced as a decisive tactic. Furthermore, Weyandt & Gudmundsdottir (2015), stressed that children with ADHD typically perform better when they are allowed to have breaks during class time and when the curriculum is modified to suit their abilities. DuPaul and Power (2000) also supported this finding. Barkley (2005), recommended that teachers recognize and build upon the strengths of a child who has ADHD and that they should strive to develop strategies to address the home-based issues that also reoccur frequently for such children. This has been termed 'emotional support' by the current author and may include humor, sensitivity, childcare, and reassurance.

Giving a child with ADHD the chance to take additional responsibility has also been observed to benefit the child. For example, Ali loves swimming, and following PE classes, he is given a chance to participate by monitoring the class line while returning to the classroom and support the teacher, too. This has instilled in Ali a sense of obligation to control his impulsiveness and to demonstrate better behavior and responsibility, which he seems to embrace.

Chapter 5: Discussion, Conclusion, and Recommendations

5.1. Discussion of the Research Findings

This research study provided realistic results following an investigation of the level of awareness towards ADHD and attitudes about teaching affected children in inclusive classrooms of primary level teachers and other key stakeholders in a private school in Sharjah, UAE. Previous literature on the topic demonstrated that the attitudes of teachers towards inclusive education and children with SEN are fundamental in the level of academic achievement and self-efficacy of such children (Mangubhai et al., 2004). This limited study has found that there remains a significant amount of work to be done in the UAE to provide a full and inclusive education for students with ADHD.

This research adopted a qualitative approach in order to gain significant insight into the perceptions of primary level teachers towards ADHD and teaching affected children in the mainstream classroom. All participants in this research were teachers employed at the same American curriculum private school in Sharjah. The research assessed issues related to teaching children with ADHD in mainstream classrooms, who demonstrated hyperactivity, inattention, and impulsivity. Furthermore, this study discusses issues around the level of training, awareness, and resources available to teachers who are being tasked with teaching children with ADHD in their mainstream classrooms. Besides, the research explored the effectiveness of adapting curriculum modifications in delivering better academic achievements for these children. Different teaching strategies were also explored as well as mechanisms to manage the inappropriate age behaviors of such children. The research objectives of the study were to answer the critical research questions, highlight the challenges facing the stakeholders in the Gulf context, as well as the cultural issues around identifying, acknowledging and addressing SEN in this region. Finally, the study also sought to provide recommendations for further research. The research questions are detailed below, with the associated study findings associated with each.

RQ1: To what extent are Primary teachers knowledgeable about ADHD and its symptoms and how ADHD impacts the learning progress of affected children?

The research focused on a specific child's case, and structured interviews were conducted with

key stakeholders associated with this child and their learning. These interviews obtained significant-quality data regarding the attitudes and perceptions of these teachers and stakeholders regarding ADHD and how they approach the teaching of affected students, taking into specific consideration the hyperactivity and inattention characteristics of ADHD. The interviews also provided insight into the impact of ADHD on the social, emotional, and academic progress of affected children. The case study child was previously diagnosed with ADHD by a therapist, and a psychological, educational report had been provided to the school by the child's parents, in line with the school's admissions requirement procedures. An IEP was developed for the child, which is a requirement for any SEND student in the UAE, which detailed learning objectives designed to promote the child's learning based on his needs. Furthermore, a pull-out program was developed in collaboration with the general classroom teachers, special educators, and parents, which was designed to focus instructions tailored for this child's individual learning needs.

Therefore, the findings of the interviews demonstrate that majority of primary level teachers in the specific school remain unfamiliar with ADHD and its symptoms, as well as how best to teach affected children. Only a few participants were familiar with the disorder as they had previously completed some in-service training. It was also found that the resources available to the teachers were typically insufficient in enabling them to be able to address the specific learning adaptations and requirements needed to provide affected children with the education they deserve.

It was noted in this research, as with previous literature, that the lack of teachers' awareness of ADHD can affect a child's development negatively. Children with ADHD show a low level of academic achievement in many cases as a result of the attention and self-discipline issues the disorder presents them with. This typically sets low expectations in the minds of teachers when presented with integrated an ADHD child into their mainstream classrooms. Consequently, such children are often treated differently by their teachers in contrast to mainstream children. This is in-line with previous research, including the conclusions posited by Al Ghazo and Gaad (2004). Successive to this, the impact of teachers' attitudes towards teaching children with ADHD is investigated next in this study.

RQ2: What are the primary classroom teachers' attitudes towards including students with

ADHD in their classrooms?

This research found that most teachers were not supportive of including ADHD children in mainstream classrooms. Concurrently, these teachers were also less willing to include children with ADHD in mainstream classrooms, as these teachers felt that such children ultimately lack the skills and characteristics required to master the curriculum taught in mainstream classrooms. That said, a few teachers held positive attitudes towards affected children and were willing to integrate them into their mainstream classrooms. This suggests that, although there is a general reluctance amongst primary level teachers, there is also a willingness to work with such students to overcome their learning difficulties and a belief that they can be included. This is in agreement with Ainscow's & Booth (1). This is particularly the case when said students do not have severe special needs conditions. Research conducted by Al Ghazo and Gaad (2004) found the same conclusions.

This research found a mixture of positive and negative attitudes, as exhibited by the teachers who participated in the study. For the most part, the majority of teachers held positive views towards inclusive education in general. However, they expressed their grave concerns regarding the hardships that are imposed on affected teachers in providing adequate education to all students in their mainstream classrooms. Sherman, Rasmussen, and Baydala (2008) explored the attitudes of teachers towards the inclusion of children with ADHD into mainstream classrooms. They found that positive attitudes were held by teachers towards this disorder and including affected children; however, they also found that teachers were concerned about the workload. Some teachers were found to perceive the challenge of successfully teaching children with ADHD as a positive, in the sense that it provided them with an opportunity to develop their skills. Nevertheless, the impact on other mainstream students was also widely noted as a negative aspect of including affected children, as the additional workload on teachers was seen as a risk to the education provided to other children (Gaad, 2019). As such, many teachers demonstrated a preference for the provision of special education classes to be instituted as required to provide services for affected children while taking the load off the mainstream teachers.

Virtually all participants stated that the in-service training they had received on ADHD was minimal and that additional training was desirable. These findings appear to support the results

of earlier research on this topic (Corkum et al., 2010). Amongst some of the specific training requirements mentioned by the participants were effective strategies that can be adopted to address common classroom problems. Some teachers noted that they wanted further training on understanding the characteristics of children with ADHD. It was also widely noted that emphasis should be given to providing training to all teachers to enable them to teach students of all abilities and with different disorders. It is advised here that collaboration should be undertaken between schools and the general and special education departments at higher education institutions to develop the strategies that should be used by teachers to enable them to teach students equally and successfully.

According to Gaad (2006) and Gaad (2011), strategies adopted for inclusive education are mostly based on the support given to them by the school administration, appropriate learning materials, and personnel resources. Therefore, teachers, parents, students, and critical community members all must collaborate to plan and deliver successful inclusive education.

RQ3. To what extent does primary teachers' awareness influence intervention quality with ADHD learners?

This research collected and analyzed data finding that more support needs to be provided to teachers in mainstream classrooms when working with children with ADHD. Harwell and Jackson (2008) and Voltz et al. (2010), amongst other researchers, argued that in order to achieve successful inclusive education personnel resources, appropriate learning and teaching materials and the support of school administrative staff were critical. Besides, the participants noted several other areas of critical requirements; in particular, they declared that they required additional support from parents and school administration in understanding the needs of affected children in their classrooms. Moreover, they stated that they needed more funding and additional training on the specific issues of managing the behavior and instituting appropriate discipline in the classroom. These results echo the conclusions made by Voltz et al. (2010) and Corkum et al. (2010), who also identified training in special education, strategies for behavior management, and strategies for reinforcing students with ADHD as critical areas for improvement.

Moreover, this research found that mainstream classroom teachers do not have a clear understanding of how inclusive education programs function and lack the relevant experience in

inclusion. This highlights the importance of additional training, in line with Gaad and Khan (2007), who indicated that successful inclusion of students with ADHD is achieved when teachers know their roles and responsibilities. Such teacher training should provide sufficient levels of experience in collaboration with other teachers, including co-visiting classrooms, workshops, sharing best practices, and providing on-going support within a professional network.

Emphasis has been placed on the importance of adapting classroom instructional procedures in the research findings. Additional instructional and planning time, reduced class size, curriculum modifications, and adaptations, as well as the help of trained assistants, are all key recommendations represented in this study and are in line with Gaad (2006).

5.2. Recommendations

The field research and data gathered during this study have informed several recommendations. These recommendations are detailed below.

1. Essentially, it was very apparent based on the results of this study that teachers had a lack of knowledge regarding ADHD and that this hinders the intervention and student support being provided. This lack of knowledge was evident amongst most participants, and it was deep, that is to say, that the knowledge of the disorder and of how to develop appropriate teaching strategies that the teaching staff had was very limited in many cases. Therefore, it is recommended that workshops and collaborative programs be established to inform the teaching staff of the disorder fully and how best to teach affected children. This should involve collaboration with psychologists who are able to provide significant insight into the disorder and its management. According to Gaad and Thabet (2009), despite the need for specialist-taught courses on ADHD, "there are no specialists available to provide such assistance in most schools." This is particularly important given the prevalence of ADHD in Sharjah and the UAE in general, as well as the presence of other disorders that may not be identified or supported.

2. Although this study explores an important research topic in the context of the UAE and Arab World, which has not been investigated extensively in the literature. However, there remains a requirement for further research on this topic. The prevalence of ADHD across the UAE has not been explored since a study conducted in 1999 (Farah et al., 2009). As this research notes, the

number of ADHD cases in the UAE has increased significantly in recent years. Future research could also benefit from introducing co-morbidity with other disorders, for example, SEBD. Co-morbidity with ADHD has been explored in the past, but not in the context of different socio-economic factors.

3.   Basically, it has been observed that teachers alter their teaching practices with a modified structure, routine, and differentiated work as a result of having a SEND child with ADHD in their classroom (Gaad, 2004). The adoption of more visual aids, as well as multi-sensory strategies, can deliver greater engagement for all pupils, and in particular, for those with ADHD. Thus, teachers require more differentiated strategies provided by experts and accompanied by adequate teaching resources. As has been demonstrated by various studies including this, those teachers with experience of teaching children with ADHD in the past tend to have greater confidence in including such children in their mainstream classrooms (Abikoff et al., 2002). Therefore, regular and repeated workshops and training programs delivered by experts and teachers with experience teaching children with ADHD are highly recommended. School administrations and the MOE should also encourage professional development for their teachers.

4.   A critical factor in the successful inclusion of children with ADHD is early identification and intervention. Consequently, the MOE and other higher authorities in the UAE need to allow schools to identify SEN children and to have staff certified to diagnose various disorders. This will ensure that affected students are supported with regular follow-ups by experts, and teachers will find it much easier to seek professional consultations and support. In part, this means recommending that schools employ psychologists and specialist therapists. This is reinforced by the feedback obtained from the child's mother during her interview, wherein she noted that it was increasingly difficult for her to obtain updated reports regarding her son as only certain specialist's centers are certified by the MOE to provide specialist support and assessment of her son. This often means long wait times before a specialist is available and a significant amount of time waiting for updated reports to be released regarding her son, in addition to the high costs, which often parents cannot afford.

5.   Children with ADHD can be empowered with practical experience and technical skills in specific vocational areas in which they show the greatest interest, as can other students.

Vocational learning can also help children with ADHD stay focused for longer and enable them to exert their energy on productive and interesting activities.

6.   Schools are currently becoming increasingly digital under the education's digital transformation scheme. For example, smart boards have replaced chalkboards, screens have now replaced textbooks, and online portals are increasingly used as communications channels between parents, students, and teachers.

a.   IEPs, therefore, need to be rethought, with suitable accommodations for children with ADHD, including paper copies of online assessments, paper for writing down thoughts, computations, and general thinking while sitting online assessments. In some cases, some affected students might need to sit written tests rather than online tests. It would be useful in terms of gathering information on children with ADHD if a standard computerized posting of assignments can be used, however.

b.   Furthermore, online portals are rarely uniform from one school to another and even from one teacher to another in addition to such portals often having many features, so this can be confusing for affected children when trying to check assignments, due dates, and submitting work on time. Commonly used portals include Google Classroom, Net Classroom, Schoology, or Moodle. These are good systems and might seem like a sensible idea for someone with ADHD, as they no longer have to remember dates and other key information. This can simplify the process of learning and managing their education for many affected children. However, it must be appropriately supported in order to achieve these returns. It is important that teachers understand the digital landscape and both the positive and negative impacts of modern technological development in the educational context, especially as this is an area of the academic landscape that is changing fast and constantly.

7.   SEN students can be screened in different ways, but teachers typically lack the training to be able to do so according to this study. Screening SEN students appropriately has a significant impact on the provision of high-quality education, in addition to the success of inclusive education. Kim et al. (2005) drew focus to the demand that is placed on teachers to be familiar with various learning difficulties and to be able to diagnose affected children.

8.   Besides, it is important and valuable for teachers to be able to identify the learning styles of different students. Palmer (2007) noted that learning style has a significant impact on improving the teaching and learning process and in establishing successful inclusive education. Thus, programs for professional development are necessary to enhance teachers' skills in this area (Kuzborska, 2011).

9.   This research strongly recommends that school administrations should also undergo professional development programs to enhance their understanding of inclusive education. Furthermore, specific rules should be implemented in the staff recruitment process, for instance, in terms of hiring Assistant Learning Tutors and Special Learning Tutors. These should be individuals who are expert and licensed in dealing with ADHD and other SEND students. Adequate budgets should also be assigned to provide the additional resources required to accommodate for children with ADHD and other learning disorders, which should be part of the school Strategic and Improvement Plan for the Special Education and Inclusive Department.

10.   Greater publicizing of ADHD as a disorder and of its impacts on learning should be undertaken throughout the school and broader community. This should also be extended via various media to include the strategies and approaches that can be adopted in order to best support the advancement of individuals with ADHD.

11.   Although teachers are increasingly becoming aware of ADHD, this remains limited, and in particular, their knowledge of how the disorder impacts the family of affected children is sparse. For example, the additional resources and learning materials required can place a significant financial burden on an affected family, which may not be fully appreciated by teachers and other stakeholders. Therefore, teachers should increase their knowledge of these impacts on the family and work to accommodate the realities of different families as well as the parenting styles in order to integrate their teaching strategies effectively. Furthermore, parents should also be given the opportunity to actively participate in their child's education, including being present in the classroom and other school activities. This can result in the child being less impulsive and more attentive while providing consistency and support in the social, emotional, and academic development of the child.

12. Further research and expanded study is recommended in order to cover a larger sample size

of teachers and contexts across the UAE. The intervention program should likewise be replicated at a larger scale and for a longer period. Besides, more research is required in the UAE and Arab World context into ADHD, its impacts, and how best to adapt teaching strategies to address it.

5.3. Conclusion

UAE as a growing country, continues on improving the educational system, and particularly on the Special Education transformational journey. As such renovations in special education are inevitable and necessary. In addition to the steps already implemented in the UAE education system, this research finds several areas of key focus that are required to address the impact of ADHD in affected children, especially as this disorder is highly prevalent in the UAE. Therefore, it is noted that further research on this topic is required. Also, more research on the impact of teachers' attitudes on the achievement of their students with ADHD is necessary.

Consequently, a more comprehensive understanding of this phenomenon can be established in order to put in place monitoring and intervention schemes to support children with ADHD. From the perspective of the educator, further research on this topic might enable the development of training and mitigate the impact of negative attitudes towards the disorder amongst teachers. Furthermore, increasing teachers' awareness of the impact of their attitudes towards ADHD may result in positive motivation to develop a better knowledge of the disorder and to be better prepared on how to teach affected children.

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Appendices:

Appendix 1- Case Study Teacher's Structured Interview Template

1. <u>Interview Purpose Explanation:</u>

This study was designed for educational purposes as part of fulfilling the requirements of a Master's degree in Inclusive and Special Education at British university in Dubai. The interview will take between 15- 20 min to be completed, participant will have the right to withdraw at any time from the interview, finally, participants will be informed that all answers provided are completely anonymous and confidential.

2. <u>Interview Demographics Information and Introduction:</u>

Interview Date:	
Interview Site:	
Interviewer:	
Interviewee Position/ Other Details	
Interview Duration From-To	
Interview Language	

3. <u>Interview Questions and Teacher's Responses:</u>

1.	**Do you know what is ADHD and do you know the symptoms of ADHD?**
2.	**Do you think that Ali as an ADHD child should be included in the same class setting with the other children who don't have ADHD?**
3.	**Do you think there is support for teachers in your school to best accommodate for the ADHD students' needs?**
4.	**do you feel that your IEP for Ali will support his learning and learning development?**

5. **In your opinion, what are the factors that enable a successful inclusion for ADHD specially and other SEND children at your school?**

6. **Do you have any suggestions and recommendations for the school to support and improve ADHD student's academic performance?**

1. <u>**Interview Purpose Explanation:**</u>

This study was designed for educational purposes as part of fulfilling the requirements of a Master's degree in Inclusive and Special Education at British university in Dubai. The interview will take between 15- 20 min to be completed, participant will have the right to withdraw at any time from the interview, finally, participants will be informed that all answers provided are completely anonymous and confidential.

2. <u>**Interview Demographics Information and Introduction:**</u>

Interview Date:	5/2/2020
Interview Site:	Private American School/ Sharjah
Interviewer:	The Researcher
Interviewee Position/ Other Details	Case Study Arabic Teacher/ I have been teaching Arabic for 7 years. I joined this school last year.
Interview Duration From-To	2:00-2:20 pm
Interview Language	Arabic/English

3. <u>**Interview Questions and Teacher's Responses:**</u>

1. **Do you know what is ADHD and do you know the symptoms of ADHD? If yes How did you Know about it?**

   -Ans: I have heard about it but do not know exactly what it is and what are the symptoms.

2. **Do you think that Ali as an ADHD child should be included in the same class setting with the other children who don't have ADHD?**

   - Ans: Ali is listed in the SEND students' Name List in the school, but I think that Ali and some other students who have behavior should be separated in other classroom to have less number of students and then only teachers will have better class control.

3. **Do you think there is support for teachers in your school to best accommodate for the ADHD students' needs?**

-Ans: There is big number of students in KG and Primary Sections in our school and this gives a challenge to teachers to support all students and especially SEND ones. In case of Ali he is two years below his level and preparing different leveled sheets add extra load of work on us as teachers in addition to the teacher's regular work. In case of Ali, he doesn't submit his homework regularly and this affects his academic achievement and his grades, too. I think he can do better, but sometimes parents are not strict with their children. The school should have and explain for the students and parents the banalities for breaking the school rules.

4. **Do you feel that your IEP for Ali will support his learning and learning development?**-Ans: I have written the IEP for him but not quite sure if he would achieve them. Frankly speaking, this is my first time I write an IEP and I feel that IEP is another extra paper work added to the load of work. I have put plans for him but not sure that his instructive level will improve unless he is more attentive in the class and submit his work on time.

5. **In your opinion, what are the factors that enable a successful inclusion for ADHD specially and other SEND children at your school?**

-Ans: internal and external Trainings and workshops, more support from the SEND department, and more workshops about classroom management strategies to deal with ADHD students and others.

6. **Do you have any suggestions and recommendations for the school to support and improve ADHD student's academic performance?**

- Ans: To improve ADHD children's academic performance schools must set specific budgets for external trainings and leveled resources for teaching and learning as such resources are either not easy to find or expensive when found.

1. **Interview Purpose Explanation:**

   This study was designed for educational purposes as part of fulfilling the requirements of a Master's degree in Inclusive and Special Education at British university in Dubai. The interview will take between 15- 20 min to be completed, participant will have the right to withdraw at any time from the interview, finally, participants will be informed that all answers provided are completely anonymous and confidential.

2. **Interview Demographics Information and Introduction:**

Interview Date:	6/2/2020
Interview Site:	Private American School/ Sharjah
Interviewer:	The Researcher
Interviewee Position/ Other Details	Case Study Physical Education (PE) Teacher/ I have 18 years of experience. I worked for 16 years in one of the government schools. I have joined this school before two years.
Interview Duration From-To	2:00-2:20 pm
Interview Language	Arabic/English

3. **Interview Questions and Teacher's Responses:**

1. **Do you know what is ADHD and do you know the symptoms of ADHD? If yes How did you Know about it?**

   -Ans: Yes, I do and I am aware of the ADHD symptoms. This is because I have attended several trainings and workshops years ago, so I have good information about inclusion provisions for SEND students.

2. **Do you think that Ali as an ADHD child should be included in the same class setting**

with the other children who don't have ADHD?

- Ans: Yes. All students should receive equal learning opportunities regardless their abilities.

3. **Do you think there is support for teachers in your school to best accommodate for the ADHD students' needs?**

-Ans: Despite the fact that this school has a SEND Department, the SENCO and two more Special Educators have joined in, only in the beginning of this academic year 2019-2020 Which means that the road is too bumpy for a successful inclusion. They are supporting students, teachers and parents, yet it is too early to judge. Also, the school inclusion policy is mainly focused on the formal procedures, however, very slow movement for active inclusive provisions inside the classrooms and with cross curricular activities.

4. **Do you feel that your IEP for Ali will support his learning and learning development?**

-Ans: Yes, it does support very much. Physical Education is very important subject for ADHD students and with the cooperation and coordination with the other subject teachers his learning will improve. As teachers, we need to make him feel that we care for him and support him as this will improve his self-confidence and then automatically his learning will improve.

5. **In your opinion, what are the factors that enable a successful inclusion for ADHD specially and other SEND children at your school?**

-Ans: Spread awareness about ADHD and other learning difficulties and syndromes amongst teachers as the success of inclusion relies on teacher's awareness. More workshops and training will help teachers improve their awareness and attitude towards ADHD students. Actually, every student has different physical ability. As for Ali, he has good ability to perform exercises but he has neither self-control nor social skills. He is impulsive and can't play within group. On the other hand, he is a good swimmer and has high ambition to be a international athlete. To control Ali's behavior, I assigned him with fixed responsibilities such as put away the equipment in the gym store end of the period and monitor the students in the line going to the class. Also, he is one of the school police. This will make him more responsible for his behavior. Ali is a very kind child, helpful, and easily motivated with positive feedback.

6. Do you have any suggestions and recommendations for the school to support and improve ADHD student's academic performance?

- Ans: The students and parents usually refuse to participate in external activities as they worry for the missing classes. Therefore, the school should create a system that help students who participate in external activities or competitions to recompense the classes they miss.

1. **Interview Purpose Explanation:**

   This study was designed for educational purposes as part of fulfilling the requirements of a Master's degree in Inclusive and Special Education at British university in Dubai. The interview will take between 15- 20 min to be completed, participant will have the right to withdraw at any time from the interview, finally, participants will be informed that all answers provided are completely anonymous and confidential.

2. **Interview Demographics Information and Introduction:**

3. **Interview Questions and Teacher's Responses:**

Interview Date:	6/2/2020
Interview Site:	Private American School/ Sharjah
Interviewer:	The Researcher
Interviewee Position/ Other Details	Case Study Math Teacher/ I have 11 years of experience. I worked for 8 years in one of the private schools in Dubai. I have joined this school two years back.
Interview Duration From-To	2:00-2:20 pm
Interview Language	English

1. **Do you know what is ADHD and do you know the symptoms of ADHD? If yes How did you Know about it?**

   -Ans: Yes. I worked in one of the private schools in Dubai and used to teach some SEND students, so I have experience about the ADHD and other learning disabilities as well.

2. **Do you think that Ali as an ADHD child should be included in the same class setting**

with the other children who don't have ADHD?

- Ans: Yes. Inclusion is when all students receive the same learning services at the same place despite of their different learning abilities. All students should be educated according to their abilities and interests as this what will guarantee their learning development.

3. **Do you think there is support for teachers in your school to best accommodate for the ADHD students' needs?**

-Ans: Teachers in my school need more training and workshops about hoe to support SEND students in their classrooms. Teachers usually receive some support when the SENCO observe classes and discuss the report, which is not enough. Teachers need more of trainings and workshops that the school should provide throughout the academic year and not held in the beginning and end of every term.

4. **Do you feel that your IEP for Ali will support his learning and learning development?**

-Ans: Yes, Ali will benefit from his learning socially emotionally and academically when there is a constant coordination between school and home. This will make him feel that he is supported all the time and all the people around him care for him which will increase hius self-esteem and learning development.

5. In your opinion, what are the factors that enable a successful inclusion for ADHD specially and other SEND children at your school?

-Ans: Spread awareness about ADHD and other learning difficulties and syndromes amongst teachers as the success of inclusion relies on teacher's awareness. More workshops and training will help teachers improve their awareness and attitude towards ADHD learners. less number of students in the primary classrooms will help teachers to focus more on the students' different needs and will give teachers more chances to practice differentiated learning strategies and follow up with all students. Also, unload teachers with the other responsibilities and paper work which takes away the teachers energy and increase their anxiety that affect negatively on their creative performance inside the classrooms and while teaching students with different abilities.

6. Do you have any suggestions and recommendations for the school to support and improve ADHD student's academic performance?

- Ans: ADHD students don't like to read and write, so it is more beneficial to provide ADHD students with electronic devices to help them learn as this will lessen their anxiety especially when writing. Also, keep differentiated resources and manipulatives in the classrooms will give great support not only for ADHD, or SEND students only , but also to the other students who are not SEND.

1. **Interview Purpose Explanation:**

   This study was designed for educational purposes as part of fulfilling the requirements of a Master's degree in Inclusive and Special Education at British university in Dubai. The interview will take between 15- 20 min to be completed, participant will have the right to withdraw at any time from the interview, finally, participants will be informed that all answers provided are completely anonymous and confidential.

2. **Interview Demographics Information and Introduction:**

Interview Date:	9/2/2020
Interview Site:	Private American School/ Sharjah
Interviewer:	The Researcher
Interviewee Position/ Other Details	Case Study Science Teacher/ I have 3 years of experience. I worked for 3 years in this school. I joined once I graduated from Ajman University.
Interview Duration From-To	2:00-2:20 pm
Interview Language	English

3. **Interview Questions and Teacher's Responses:**

1. **Do you know what is ADHD and do you know the symptoms of ADHD? If yes How did you Know about it?**

-Ans: I know, but not much. What I know is when the child is hyper active, he is with extra energy and this is because of the unhealthy diet such as fast food, chocolate and other unhealthy diet. The issue is almost most of the students nowadays, and due to unbalanced diet, are full of energy and cannot control their behaviors.

2. **Do you think that Ali as an ADHD child should be included in the same class setting with the other children who don't have ADHD?**

- Ans: No, Ali and the other students who have learning difficulties and show behavioral issues should be separated all together in separate classrooms because the other students might copy them. On the other hand, the teachers will get the opportunity to support them according to the instructional level they show and this will make the teacher's much easier and more focused.

3. **Do you think there is support for teachers in your school to best accommodate for the ADHD students' needs?**

-Ans: There is a SEND department in this school, but since I joined the school, this is the first year I have to write an IEP, do curriculum adaptation and modification, and create booklets for the SEND students according to their level and learning abilities. Therefore, this has added more to the load of work that we already have. Also, the number of trainings and workshops that held in the school is not sufficient to prepare me to control the behavioral issues that Ali and other students like him show in the class. Not to mention that I haven't attended any workshop or trainings outside the school campus.

4. **Do you feel that your IEP for Ali will support his learning and learning development?**

-Ans: I am not sure as this is my first year to write an IEP. I have learned new things about SEND students but no specific information about ADHD students, so I think I need more training to sharpen my skills to help not Ali only but all the students, as well.

5. **In your opinion, what are the factors that enable a successful inclusion for ADHD specially and other SEND children at your school?**

-Ans: As newly graduated teacher with little experience, I need to know more about inclusion successful provisions and more details about SEND students and specifically ADHD as I feel that there are big number of students in the classrooms who are hyperactive and this affect negatively their learning development.

6. Do you have any suggestions and recommendations for the school to support and improve ADHD student's academic performance?

- Ans: Increase the in-class activities and the cross curricular activities. More differentiated resources to support students' different learning styles. Also, more trainings and workshops to empower teachers with the effective strategies inside classrooms to support ADHD and SEND students.

Demographics Information:

Interview Date:	10/2/2020
Interview/ Participant:	Mother of Ali
Interview Time/ Duration:	30 minutes

Part 2: Interview Questions and Responses:

1- Give me background information about Ali.

Ali is nine years old, and he is my youngest child. Ali has one brother (the most aged 28 years old) and two sisters (one is 22, and the other is 19 years old).

2- How did you know that Ali has ADHD?

His teachers' comments that he is very active don't pay much attention to the class, and that was affecting his grades and academic performance. Also, sometimes he behaves differently and impulsively in comparison with his peers. In the beginning, his father and I thought that responsibly because he is the youngest and was spoiled by everyone. But, later, his aunty, who is a social worker, advised us to see a therapist for consultation and support.

3- Does Ali like his school and why?

According to his mood. Somedays, he comes home pleased because his teacher praised him. Some other times he comes back very angry and with a very disturbed mood. Ali is a sensitive boy, and he gets easily annoyed if he is not supported. He thinks that some teachers don't like him. On the other hand, he wants some other teachers who he believes that like him and always very supportive to him.

4- Up to what extent Ali's teachers aware of Ali's educational needs?

Some teachers are very considerate and supportive of Ali. On the other hand, some other teachers who don't know how to support Ali neither with his learning nor with his behavior. Although Ali is registered as a SEND student in the school, he still receives the same homework that the other students who are not SEND. Although teachers have written Ali's IEP, yet the intervention plans are not sufficient enough to support his academic achievement.

5- Up to what extent do you think teachers are aware of ADHD, the symptoms, and how to support ADHD students in their classrooms?

I think that most teachers are not aware of ADHD and how to support ADHD students inside the classroom. Teachers habitually send comments such as: was not able to finish his work in the class, homework is not done, or was not paying attention in the class. I find such comments either in his notebooks, books, or face to face during parents' meetings. Also, sometimes I receive feedback about his impulsive behavior in and out of the classroom, which makes him frustrated and doesn't want to do the required tasks.

6-   What do you suggest teachers do to support Ali academically and emotionally?

Teachers should be trained on how to support Ali and other SEND students. Use different strategies when teaching and break down work into smaller tasks. Also, positive comments and assign Ali with leading roles will help him improve his self-esteem, and his academic performance will automatically improve. Ali likes swimming, so the school can help him improve his swimming skills and allow him to participate inside and outside the school competitions. The teachers also can support Ali by helping him cover up the missing classes. I believe that the school has a vital role and can support Ali more than writing an IEP. By increasing parents' participation during the school day and not only on certain occasions. Moreover, the school should employ teachers who are expert enough to support SEND students. Having such expert teachers will benefit not only students but other teachers, parents, and the school itself.

Appendix 7- Case Study Classroom Observation Recording Report

1. **Interview Demographics Information and Introduction:**

Name of the Child:	Ali (pseudo name)
Class/ Period	Gr-5/ 3rd period (9:30-10:15 am
Subject	Science
Date	6/2/2020
Observer	The Researcher
No of students Present/ Absent	25/ 2

2. **Observation Purpose:**

1. Case Study learning behavior
2. Teacher's awareness about ADHD and their attitudes towards including ADHD students in mainstream classrooms.
3. Intervention strategies to support ADHD student's learning and encourage the learning development

Observation Report in the Educational Setting #1

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1. **Case Study learning behavior:**

- Ali got himself ready for the class late in comparison to the other students who started to get themselves ready once the bill of the period rang.

- Ali's stuff were scattered on his table and some of the stationary were out of the pencil case and the pencil case was half open.

- During the lesson, Ali was restless, moving on his chair, looking around at the window, door and sometimes busy with his stuff.

- When the teacher asked the pupils to open their books to start do the exercises, Ali put his head on the desk and showed no interest. He asked the student sitting

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next to him about the answers and how to solve the exercises.

-During the lesson, he raised his hand and without waiting for the teacher's permission he asked her to go to the toilet. (P.S. in this school, there is a toilet in every classroom).

-When the teacher asked Ali to describe the picture and name two things is not appropriate and is not matching with that period of time, he gave one answer correct and the other answer was incorrect.

- During the group work, Ali was trying to copy from the team members but he was not at their pace. The students were trying to push him, but in order to finish and the group don't lose a star for that answer, one of the students in his team wrote the answer in his book.

-End of the period, Ali couldn't finish all the exercises in his book and the teacher marked (incomplete work to be continued at home).

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2. **Teacher's awareness about ADHD and their attitudes towards including ADHD students in mainstream classrooms.**
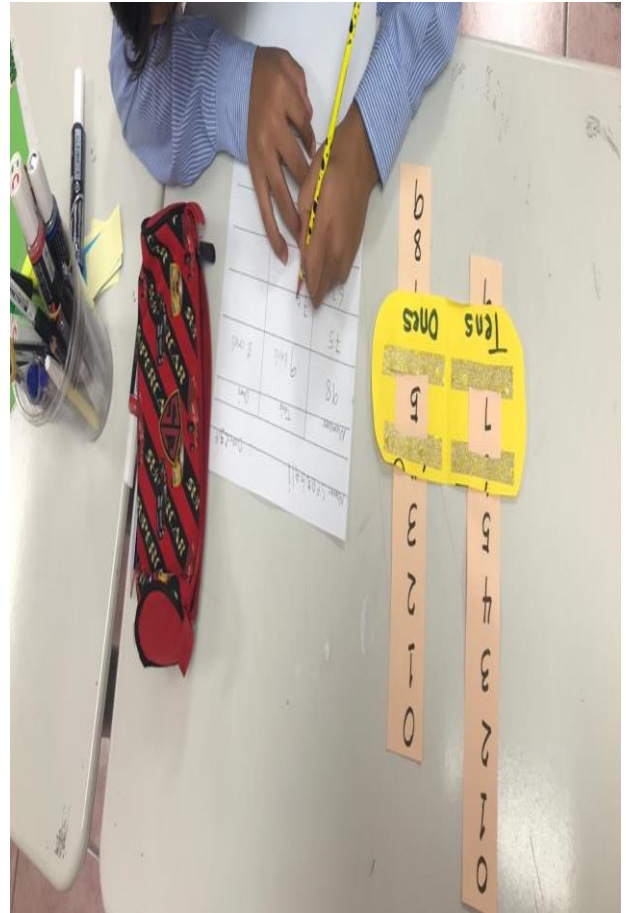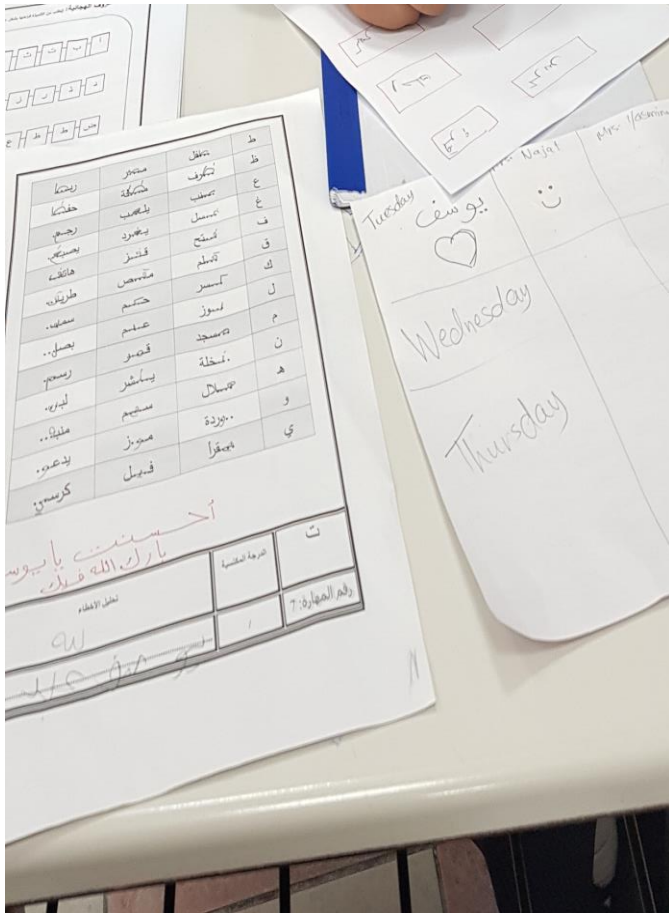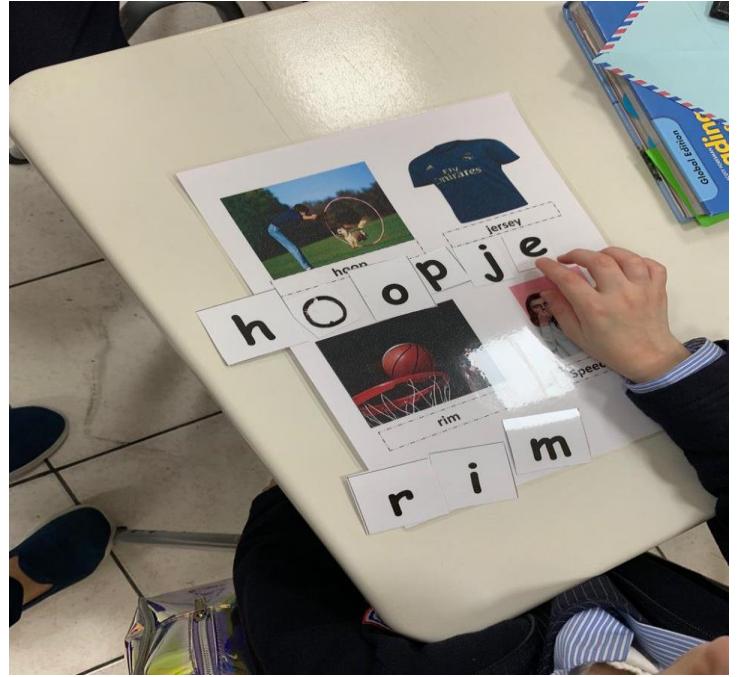   - The teacher instructs Ali to get ready for the class and remind him that he should be ready once he hears the ring of the bill.
   - The teacher keeps calling Ali's name to keep him focused and to look at the board.
   - The teacher was encouraging the students to finish the task assigned for every group, but didn't pay special attention to Ali. She just passed by the group and gave comment: "Help your friend (pointing at Ali) or you lose a star).
   - When asking questions, the teacher didn't try to encourage Ali when he gave half of the answer by giving hints, however, she took the answer from other student leaving Ali with no further explanation to the point that he

couldn't answer.

- - End of the period, and while checking Ali's individual answers the teacher wrote a comment for Ali that he was not able to finish his work in the classroom and this work to be finished at home without giving him any special time to help him finish his work, or even chunk the work for him into parts to encourage him achieve.

3. **Intervention strategies to support ADHD student's learning and encourage the learning development**

- No visual aids used for Ali to help him comprehend and follow up with the lesson steps

- Ali needs words of encouragements after setting up and reviewing the classroom and teacher's rules

- Ali needs more of hands on activities and multisensory strategies to assure his engagement and learning

- Ali needs more of the teacher's individual support and to break down the tasks into smaller chunks to assure his performance

- Make him responsible for his own performance and achievement so he is more independent than dependent on others.

Appendix 8- Case Study Classroom Observation Recording Report

3. **Interview Demographics Information and Introduction:**

Name of the Child:	Ali (pseudo name)
Class/ Period	Gr-5/ 2rd period 8:45-9:30 am
Subject	English Language Subject
Date	5/2/2020
Observer	The Researcher
No of students Present/ Absent	27/ 0

4. **Observation Purpose:**

4. Case Study learning behavior

5. Teacher's awareness about ADHD and their attitudes towards including ADHD students in mainstream classrooms.

6. Intervention strategies to support ADHD student's learning and encourage the learning development

Observation Report in the Educational Setting #1

> 1. **Case Study learning behavior:**
>
> **-** The class started with spelling test. Ali was nervous and asked the teacher to repeat the words many times and to read slower.
>
> **-** Ali was not as active as usual. However, still showed the same degree of restless.
>
> - During the lesson, Ali participated in oral discussion and got positive feedback from his teacher which encouraged him to keep alert and attentive.
>
> -Ali's spoken English is very good, however, he read slower with many mistakes

when he was asked to read.

-During the lesson, he left his seat to get his stuff book, note book and workbook from the bag three times and without the teacher's permission.

- When Ali was assigned to match the word with its picture, he was very fast to recognize the answers. However, when the teacher asked them to find out the definitions of the vocabulary words from the book glossary, he was looking around watching and copying the other students. He took longer time to copy the words in his notebook. Also, his handwriting was illegible and not neat.

- End of the period, Ali scored three out of eight and this is the number of the vocabulary words he could fix letters for the matching picture exercise .

- Ali was promised by his teacher that he would get bonus mark if he sat attentively during the lesson. By the end of the lesson, the teacher marked his book and put (+1) and wrote a note "For Being Attentive During the Period".

2. **Teacher's awareness about ADHD and their attitudes towards including ADHD students in mainstream classrooms.**
   - The teacher assigned Ali to collect the spelling notebooks immediately after the spelling test.
   - To grab Ali's attention during the class, the teacher provided Ali and some other students (below level students) different activity that is to cut the words and paste them under their matching pictures when the other students were assigned to copy the words for several times in their notebooks
   - The teacher encouraged Ali positively every time he was successful during the lesson.
   - The teacher asked Ali to assist her several times during the lesson (clean the board, pass the worksheets, collect the sheets), and he did it excitedly.
   - More of individual support by the teacher to be provided to Ali as this will

help him comprehend better and then perform.
3. **<u>Intervention strategies to support ADHD student's learning and</u>** **<u>encourage the learning development</u>** - Ali could achieve when he was assigned with interactive learning strategies which helped him to increase his self-esteem and encouraged him to work harder. - Frequent positive feedback encouraged his class engagement and learning. - Clear instructions and engaging ones helped Ali be more focused and attentive. - To assign Ali with assignments that are not long and repetitive, but with a little challenge to raise the learning bar. - More of multisensory activities to help him absorb and then process the information by using the senses of hearing, touching, seeing, and mobilizing.

Appendix 9-   The Student's Work

A. Match the picture with its correct action verb. Write the letter of the sentences in the box next to the matching picture. (2 marks each)

jump

smile

eat

drink

clap

see   in
is   it
at   if
to   my
so   go

Two Letter Word Flash Cards
Ad Am An
As At Ax
Be Do Go
He Hi If
In Is It
Me My No
Of On Or
So To Up
Us We
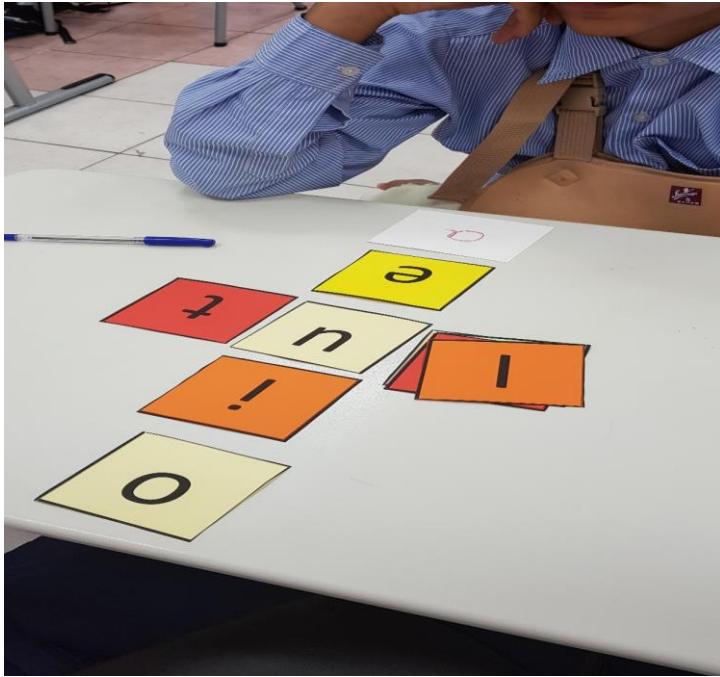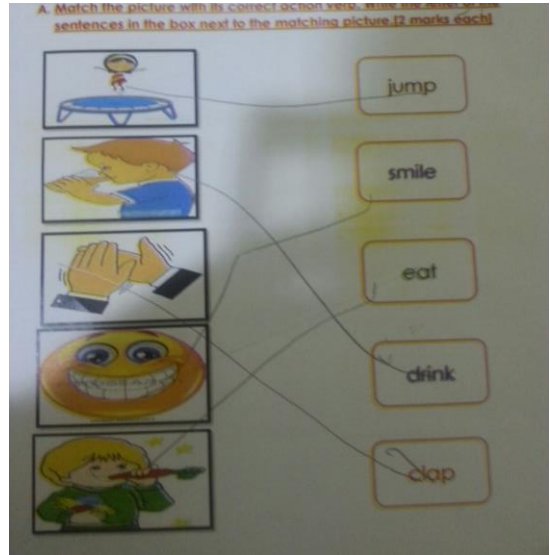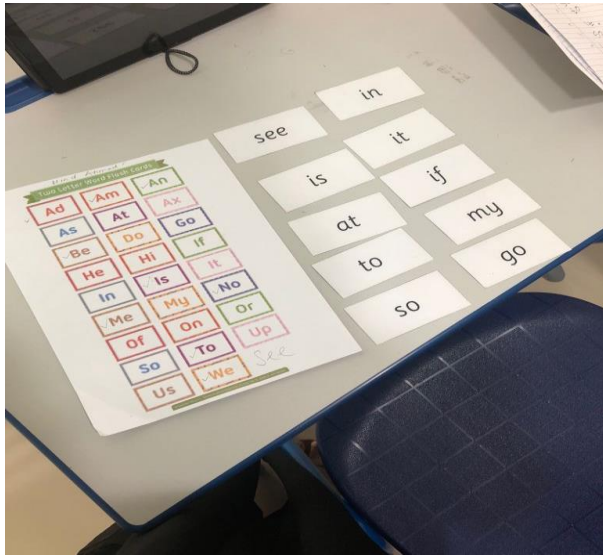
Appendix 10-   Screening Assessment and Diagnostic Tests Sheets
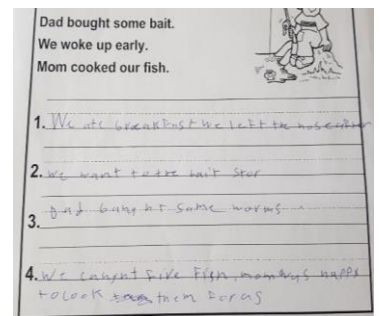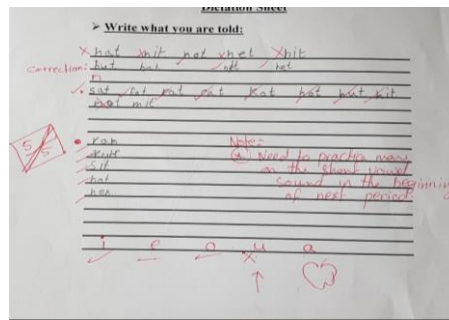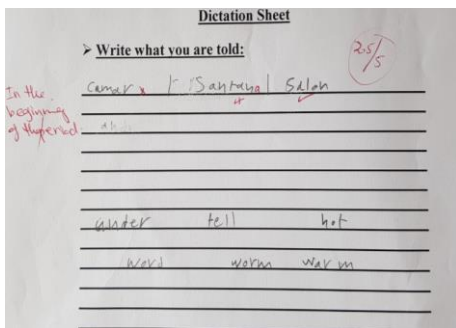
Level Range / Grade level	Number of Words in 3 minutes
Level 1: A-D (Gr 1)	70 words
Level 2: E-G (Gr-2)	107 words
Level 3: H-K (G3)	158 Words
Level 4: L-P (Gr-4))	225 words
Level 5: Q-T (Gr-5 & 6)	283 words
Level 6: U-W (Gr- 7 & 8)	306 words

Appendix 11-   The Psychological and Education Report

تحديد صعوبات التعلم لمن المدرسة :

الصعوبة	الدرجة
صعوبات التعلم في القراءة	92,5

ويشير الجدول السابق بأن هناك احتمالية عالية لوجود الطالب ضمن فئة صعوبات التعلم الاكاديمية (في القراءة)   – وذلك بناءً على مؤشرات مقياس استانفورد بينيه الصورة الخامسة .

نتائج مقاييس التقدير التشخيصية لصعوبات التعلم الاكاديمية (صعوبات الكتابة) :

حيث يقصد بصعوبات الكتابة Dysgraphia handwriting ضعف أو قصور في القدرة على الكتابة اليدوية والتهجي والتعبير الكتابي بالإضافة الى :

- مشكلة المعالجة والتي ينتج عنها تعب ومعاناة في الكتابة اليدوية .
- الشعور بالإحباط مع الأعمال الكتابية .
- أول الكتابة أفضل من أخرها .
- التعب والاجهاد عند ممارسة الأعمال الكتابية .
- الصعوبة في أداء الواجبات والاعمال الكتابية .
- عدم اتساق الحروف .
- معاناة التعبير عن الأفكار .

وقد حصل الطالب على درجة = <u>60</u> ، وهي درجة تشير الى وجود احتمالية لصعوبة في الكتابة بدرجة متوسطة (تبعاً لمعايير المقياس) . <u>حيث أن الدرجة القاطعة أو الفاصلة (20 فأقل) .</u>

نتائج مقاييس التقدير التشخيصية لصعوبات التعلم الاكاديمية (صعوبات القراءة) :

حيث يقصد بصعوبات القراءة Dyslexia ضعف أو قصور في القراءة مسترسلاً دون توقف مع صعوبات الفهم لمعاني أو مضامين النصوص القرائية وتفسيرها .

وقد حصل الطالب على درجة = <u>50</u> ، وهي درجة تشير الى وجود احتمالية لصعوبة في القراءة بدرجة متوسطة (تبعاً لمعايير المقياس) . <u>حيث أن الدرجة القاطعة أو الفاصلة (20 فأقل) .</u>

(وهو ما يتوافق مع مؤشرات مقياس استانفورد بينيه للذكاء – الصورة الخامسة) .

التوصيات

١ – بمقدو ر يوسف الالتحاق في الفصل العادي بمستوى الحالي مع الحرص على تقديم الدعم والمساندة الفردية من خلال ادخاله <u>غرفة المصادر</u> لتلقي الخدمات المناسبة و تعاون الأسرة مع المدرسة .

٢- يحتاج إلى برنامج خاص لتعديل السلوك الاجتماعي وتنميه المخالطه الاجتماعيه وتحمل المسؤلية و تتولى ذلك جهة متخصصة بالتعاون مع الاهل .

٣ - يفيده في تعلمه التكرار و الإيضاح في بعض الاحيان ليتمكن من الفهم و الاستجابة .

٤ - يحتاج إلى التعزيز والتشجيع المستمر مع تقديم التدريبات المناسبة للاعتماد على النفس والاستقلالية لمواجهة حالة قصورالاعتماد التي يعاني منها .

٥ - من الأهمية تقليل المثيرات المشتتة للانتباه و إبراز العناصر الأساسية في المهمة التعليمية .

٦ - تدريب يوسف و تعويده على ممارسة العادات و المهارات الوظيفية الاستقلالية و كذلك المهارات الإجتماعية و اكسبه السلوكيات المناسبة للمرحلة العمرية .

٨ - إعطاء علي الوقت الكافي لإظهار الاستجابة المناسبة و عدم استعجاله نظرا لاحتياجه لوقت أطول احيانا

٩- العمل علي تهيئته لعمليات القراءة والكتابة بصورة أفضل من خلال : -

أ –التدريب الحركي   ب – التدريب السمعي   ج – التدريب البصري

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