

# The Need of Teaching Strategies for Students with Attention Deficit Hyperactivity Disorder at Saudi Arabian Schools

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## ABSTRACT

Attention Deficit Hyperactivity Disorder (ADHD) is prevalent in schools around the world today. Over 1.6 million Saudi children suffer from ADD/ADHD today, which is comparable with other nations. Roughly 11% of US students are effected by ADHD and 15% of Saudi students. The Saudi Arabian Ministry of Education has approved the implementation of ADD/ADHD programs in schools. However, teachers in Saudi Arabia are not well prepared to work with the issues that they are facing in their classrooms with these students. Both teachers and parents can benefit from learning new strategies to work with their ADD/ADHD students. The lack of proper instructional strategies employed and understanding of the disorder cause students to fall behind and struggle academically. There are many simple resources that teachers can tap into for help; however, many are not prepared to teach students with ADHD. This study seeks to gather information through survey questionnaires and research regarding teacher's as well as student advisor's understanding and perspectives of ADD/ADHD and to provide information in order to bring awareness of different types of strategies for Saudi teachers, student advisors and parents to implement with elementary, middle, and high school students in their academic achievements. This project also seeks to develop a program and Guidebook for teachers and parents to use providing information and instructional strategies to help them with students with ADD/ADHD.

**Keywords:** Attention Deficit Disorder (ADD), Attention Deficit Hyperactivity Disorder (ADHD), students with ADD/ADHD, teaching strategies of ADD/ADHD.

## I. INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD) is a neurological condition characterized by inattention, hyperactivity and impulsivity as its core symptoms. Research have shown that there are an estimated 1.46 to 2.46 million children with ADD/ADHD in the United States alone; together these children constitute 3–5 percent of the student population (Stevens, 1997a; American Psychiatric Association, 1994). Most research suggests that the ADD/ADHD is diagnosed four to nine times more often in boys than in girls (Bender, 1997; Hallowell, 1994; Rief, 1997). Although earlier it was assumed to be a childhood disorder that became visible as early as age 3 and then disappeared with the advent of adolescence, however, the condition is not limited to children. It is now recognized that while the symptoms of the disorders may change as a child ages, many children with ADD/ADHD do not grow out of it (Mannuzza et al., 1998).

A child's academic success is often dependent on his or her ability to appear to tasks and teacher and classroom expectations with minimal distraction. Such skill enables a student to acquire necessary information, complete assignments, and participate in classroom activities and discussions (Forness & Kavale, 2001). Students with ADD/ADHD typically have a great deal of difficulty achieving success academically and/or socially. Difficulty with organizing work and completing assignments often translates into school marks far lower than would be predicted by the ADD/ADHD student's ability. The student with impulsive tendencies can have further difficulty establishing and maintaining positive relationships with peers and teachers.

Schools around the world today lack proper preparation for teachers working with students with ADD/ADHD. ADD/ADHD has become more prevalent in today's society, but awareness for this disorder is moving slowly.

Schools need to develop new strategies to combat ADD/ADHD through teacher preparation, increased collaboration with parents, and through instructional strategies for students who need additional help in school due to ADD/ADHD. Unfortunately, many schools are not prepared to meet all these needs.

This study focuses specifically on school strategies for elementary, middle, and high school students who struggle with ADHD, and ways that the school can help them succeed. As schools become more aware of strategies that they could implement, particularly through teacher training about ADHD, collaboration with parents of ADHD students, and instructional strategies for students with ADHD. Through these strategies, schools will have a better capacity to deal with these students from a school wide process, down to teachers working with individual students. Schools hold the power to make the changes that teachers cannot do alone.

Currently, many new studies and strategies are being made to help students with ADHD be more successful academically. Psychology has developed in many ways and provided new ways for schools to work with these students. Teachers in Saudi Arabia are not adequately equipped with a strong understanding of the symptoms of ADD/ADHD or the strategies of how to help students with it. Often times children with ADD/ADHD are looked at as being disruptive or troubled, when in reality they are suffering from this disorder. At this point of time, there are no active programs to educate or train teachers in instructional strategies that can be implemented with their ADD/ADHD students in schools in Saudi Arabia.

## Background

Few studies have focused on the prevalence of ADD/ADHD in Saudi Arabia. However, it is estimated that 1.6 million children in Saudi Arabia suffer from some form of ADHD (Arab News, 2014). In an issue of Arab News, it has been reported that 11% of children in the USA have ADHD while 15% of Saudi children are estimated to have it. In 2009, the Saudi Ministry of Social Affairs registered the Saudi Attention Deficit Hyperactivity Disorder Society (AFTA) as a part of confronting the increase of ADHD in society (Alqahtani,

2010). However, there is still much work to be done. In 2010, there were only 40 specialist doctors who were qualified to treat AHDH kingdom-wide (Alqahtani, 2010).

Taleb and Farheen (2013) conducted a study, using 200 students (100 males and 100 females) to participate in a ADHD rating scale assessment. The results of the study showed that 13.5% of the students surveyed showed symptoms of having ADHD. The data also correlated the highest percentages to be from students who were male and firstborn. Furthermore, they also observed a direct correlation between the literacy level of the students' parents, particularly the mother, and also if the family had less than ten children. Hamed et al. (2008) offered similar results, showing that children from single parent homes had a higher rate of ADHD than those coming from two parent homes. They also found, a connection between children who had been breastfed as babies, having a decreased chance of being diagnosed with ADHD.

Hassan et al. (2009) conducted a study to evaluate if ADHD could be tracked demographically in Saudi Arabia. Though the study concluded that there was no significant difference between students of various demographics, they did determine on a deeper level that caregiver's educational background did have an effect. For instance, they found that caregivers with many years of education were more positively associated with "inattention" symptoms of ADHD than they were connected with the "hyperactivity compulsivity". Even with these results, more studies are needed to be done in order to formulate a clear understanding of the relationship between parents and children with ADHD.

Homidi et al. (2013) conducted further studies regarding the prevalence of the three different sub-types of ADHD: attention deficit disorder (ADD), hyperactivity disorder (HD), and attention deficit hyperactivity disorder with impulsivity. The study was carried out in Jeddah City, Saudi Arabia, containing a sample population from 20 different public schools around the city. The goal was to measure the Attention Deficit Hyperactivity Disorder Scale to see if one of the sub-types was more common around children ages 6-12 years old. The study revealed that the total percentage of students in these schools with ADHD was 11.6%. However, 6.3% of those were

considered ADD, 2.2% HD, and 3.1% was ADHD with impulsivity. The results of this study recommended KSA educational policy makers implement a stricter AHDH screening process for school aged children and called for early interventions to be made as soon as possible for diagnosed students. Other studies have shown that as the rate of ADHD cases decreased significantly with an increase in age of students (Jenahi et al., 2012).

## II. METHODS AND MATERIAL

The purpose of this study is to gather information regarding current trends in teacher's as well as student advisor's level of understanding, perspectives and their beliefs about ADD/ADHD through data collected from personal assessments, in order to have a larger perspective of how the problem can be remedied.

### Scope of the Study

This study was specifically created focusing on teachers and student advisors working in public and private schools in Saudi Arabia. The solutions provided throughout this study will be specifically aimed at Saudi Arabian teachers, student advisors and parents.

### Study Instrument

A survey was conducted on teachers and student advisors in public and private schools in Jeddah City, Saudi Arabia, in order to determine the level of understanding about ADD/ADHD.

A total of 11 survey questions had been made, out of which 5 questions were designed to provide background information of the teachers and student advisors regarding gender, school district, public or private school, grade level they teach, and type of school (elementary, middle, secondary, elementary-middle or middle-secondary). The other 6 questions were designed to deliver information regarding the level of understanding and perception of ADD/ADHD in their school settings.

### Study Sample

The survey was conducted on 14 schools located in Jeddah city, Saudi Arabia. They are – Khlais District

Boys Schools, Khlais District Girls Schools, South West District Girls Schools, South East District Girls Schools, South District Boys Schools, Al-Naseem District Boys Schools, Al-Saffa District Boys Schools, North Boys Schools, North Girls Schools, Downtown Boys Schools, Downtown Girls Schools, East Boys Schools, Rabig Girls Schools and Rabig Boys Schools. The data in this study represents these 14 schools (8 boys' schools and 6 girls' schools). Mr. Mohammed Al-Shahrani, M.A. and Supervisor of Measurement and Diagnosis with the Special Education Department in Jeddah City, initiated setting up the electronic link, distributing the survey questionnaires electronically, and assisted in compiling the official data and statistics of the surveys from the School for boys and girls in Jeddah.

## III. RESULT AND DISCUSSION

### A. Teachers Survey

Out of 8,043 teachers who were distributed survey questionnaires only 546 teachers had responded. Among the 546 teachers responded, 58.8% are female and 41.2% are male; 63.4% of them were from teachers employed in public schools while 36.6% of the responses were from teachers in private schools. While 23.4% are elementary teachers, 43.9% were middle school teachers, 30.7% were secondary school teachers, 1.28% were from teachers at a combined elementary-middle school, and 0.54% were from combined middle-secondary school teachers (Table-1).

From the questions that had been designed to bring together the information regarding the level of understanding and perception of teachers about ADD/ADHD in their school settings, it has been figured out that 52.2% of the teachers were familiar with ADD/ADHD as a disorder while 47.8% were not. A total of 59.3% of the teachers perceived that ADD/ADHD should be considered a category of special education, while 40.7% did not feel the same and 44.5% of teachers believed that students with ADD/ADHD should be part of a special education program, while 55.5% believed that they should not. The question designed to gather information about professional development regarding training courses about ADD/ADHD shown that, out of the 546 teachers responded, only 80 of them had attended an

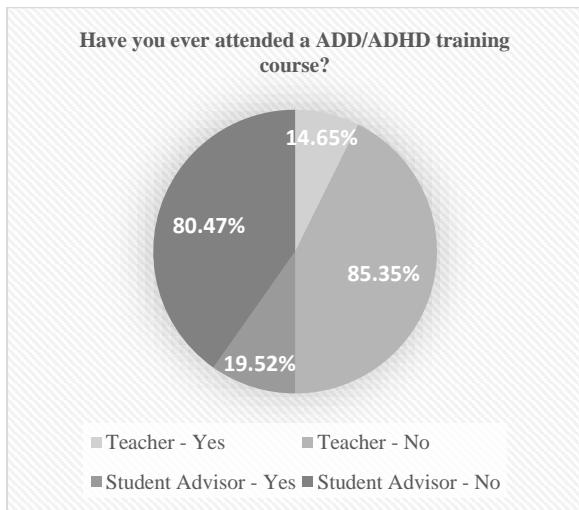
ADD/ADHD training course, while the remaining 466 never had (Fig. 1). Likewise, when asked if the school had provided any awareness programs about ADD/ADHD for them as regular teachers, only 21 responded that their school had. This left 525 teachers

whose schools had never provided any type of awareness about ADD/ADHD (Fig. 2). The last survey question inquired whether teachers believed

**Table 1:** Responds of teachers to the questionnaires regarding awareness, understanding and perspective of AD/ADHD.

Question		Gender		School		Level Grade				
	Responds	Male (%)	Female (%)	Public (%)	Private (%)	Elementary School (%)	Middle School (%)	Secondary School (%)	Elementary-Middle (%)	Middle-Secondary (%)
Is ADD/ADHD familiar to you?	Yes	21.97	30.21	37.36	14.83	16.48	21.06	13.18	0.91	0.54
	No	19.23	28.57	26.00	21.79	6.95	22.89	17.58	0.36	0.00
From your perspective, do you consider ADD/ADHD a category of special education?	Yes	22.16	37.17	41.20	18.13	15.38	24.35	18.68	0.73	0.18
	No	19.04	21.61	22.16	18.49	8.05	19.59	12.08	0.54	0.36
Is ADD/ADHD child should be subject to the special education program at your school?	Yes	18.49	26.0	34.43	10.07	17.21	13.73	12.45	0.91	0.18
	No	22.71	32.78	28.93	26.55	6.22	30.21	18.13	0.54	0.36
Have you ever attended an ADD/ADHD training course?	Yes	7.32	7.32	7.50	7.14	4.02	3.84	6.04	0.54	0.18
	No	33.88	51.46	55.86	29.48	19.41	39.92	24.54	0.91	0.54
Has the school provided awareness program for you as a regular teacher about ADD/ADHD students?	Yes	2.01	1.83	2.93	0.91	3.29	0.54	0.00	0.00	0.00
	No	39.19	56.95	60.25	35.89	20.14	43.40	30.76	1.28	0.54
Do you believe that ADHD is a real problem/diagnosis, or is it the result of indiscipline in their home lives?	Diagnosis	21.06	33.51	35.71	18.86	17.39	22.89	13.18	0.73	0.36
	Indiscipline	4.21	12.27	10.43	6.04	2.74	7.50	5.67	0.36	0.18
	I don't know	15.93	13.00	17.21	11.72	3.29	13.55	11.90	0.18	0.00

ADD/ADHD is a real problem with a diagnosis or the result of undisciplined students. While 54.6% of teachers responded that they believed ADD/ADHD to be a real problem/diagnosis, 16.5% believed that it is result of indiscipline behaviors at home, and 28.9% answered that they did not know (Table-1).



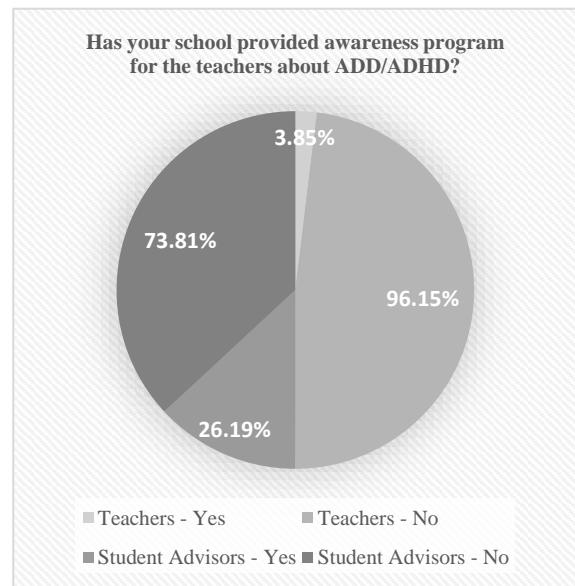
**Figure 1:** Percentage of teachers and student advisors surveyed, who had and who had never attended any ADD/ADHD training courses

## B. Student Advisors Survey

Student advisors are a form of leadership in Saudi schools who serve as student counsellors and they also serve as the human resources agents in school, connecting with families and students. Each school should have at least one student advisor, however, depending on the size of the school there may be more. For this survey, 100% of the student advisors who were distributed the survey questionnaires had responded. A total of 210 student advisors were surveyed in the 14 school districts, 92 of the advisors were male and 118 were female. Findings had shown that 21% of the student advisors surveyed were based in private schools while 79% were from public schools. Of these, 45.7% were from elementary schools, 26.7% from middle schools, 20.9% from secondary schools, 4.28% elementary-middle schools, and 2.38% from middle-secondary schools (Table-2).

The survey data concerning their knowledge of ADD/ADHD showed that 72.4% of the student advisors were familiar with ADD/ADHD, while 27.6% were not. In addition, 55.2% of the student advisors considered

that ADD/ADHD is a category of special education while 44.8% did not. When asked their opinions on whether ADD/ADHD children should be subject to special education programs at their school, 56.2% responded that they thought it would be a good idea, while 43.8% did not. Student advisors were also asked if they had ever attended an ADD/ADHD training course, and 169 out of the 210 responded that they had not, leaving only 41 who had undergone training course (Fig. 1). Furthermore, when asked if they had ever provided awareness programs for regular teachers about ADD/ADHD in their schools, 155 of the student advisors responded that they had not, while 55 had provided such a program at their schools (Fig. 2). They further elaborated that the type of program they had provided were, courses on dealing with distractions, growth characteristics, dealing with people with movement and activity strategies, programs for autism and hyperactivity, etc. The final question was designed to ascertained whether they believed students with ADD/ADHD is a real problem/diagnosis or is the result of undisciplined students. Of all the 210 student advisors, 70% said that they believed ADD/ADHD to be a real problem that is diagnosable, while 21.9% thought these students were just being undisciplined as they are at home, and 8.10% responded that they did not know (Table-2).



**Figure 2:** Percentage of schools surveyed, that had and had not provided awareness programs for teachers about ADD/ADHD.

Based on these assessments, a program has been developed for teachers and parents to make them aware about ADD/ADHD. A guidebook entitled, "Unconditional love, instructional strategies and practical techniques for ADD/ADHD students." has also been compiled for teachers and parents to provide

information and instructional strategies that can be used more efficiently in classrooms and at home, respectively, to help students with ADD/ADHD. The guidebook is in the process of publication.

**Table 2:** Responds of Student Advisors to the questionnaires regarding awareness, understanding and perspective of AD/ADHD.

Question		Gender		School		Level Grade				
	Responds	Male (%)	Female (%)	Public (%)	Private (%)	Elementary School (%)	Middle School (%)	Secondary School (%)	Elementary Middle (%)	Middle- Secondary (%)
Is ADD/ADHD familiar to you?	Yes	28.57	43.80	57.61	14.76	33.33	20.47	12.85	3.33	22.38
	No	15.23	12.38	21.42	6.19	12.38	6.19	8.09	0.95	0.00
From your perspective, do you consider ADD/ADHD a category of special education?	Yes	28.09	28.57	41.90	13.33	28.57	12.38	10.00	2.85	1.42
	No	15.71	27.61	27.14	17.61	19.52	11.90	10.95	1.42	0.95
Is ADD/ADHD child should be subject to the special education program at your school?	Yes	26.66	29.52	43.33	12.85	26.66	14.76	10.47	2.85	1.42
	No	17.14	26.66	35.71	8.09	19.04	11.90	10.47	1.42	0.95
Have you ever attended an ADD/ADHD training course?	Yes	7.61	11.90	16.66	2.85	13.33	1.90	1.90	1.90	0.47
	No	36.19	44.28	62.38	18.09	32.38	24.76	19.04	2.38	1.90
Has the school provided awareness program for you as a Regular teacher about ADD/ADHD students?	Yes	13.33	12.85	14.76	11.42	10.47	6.19	7.61	1.42	0.47
	No	30.47	43.33	64.28	9.52	36.19	18.09	14.76	2.85	1.90

Do you believe that ADHD is a real problem/diagnoses, or is it the result of indiscipline in their home lives?	Diagnosis	30.00	40.00	57.61	12.38	34.28	18.09	11.90	3.80	1.90
	Indiscipline	10.00	11.90	15.23	6.66	8.09	7.61	4.76	0.95	0.47
	I don't know	3.80	4.28	6.19	1.90	3.33	0.47	4.28	0.00	0.00

## C. Discussion

Many teaching strategies had been presented on how teachers can help students with ADHD. Each student is different and requires a different level of instructional assistance. When teachers and schools are equipped to meet the educational needs of their students with ADHD then the students will be able to succeed. Many of the instructional strategies for ADHD are simple and available for most classrooms to use without much extra cost. When the strategies can be properly applied, they can make all the difference for students with ADHD.

Attention Deficit Hyperactivity Disorder is considered to be one of the most frequently diagnosed childhood disorders, however, there still seems to be many teachers/educators who are not familiar with it. Teachers are often the first to detect signs of ADHD in their classrooms and should be able to make the correct referrals if they believe a student has ADHD (Abed et al., 2014). This is why it is so vital that teachers have a good understanding of the symptoms and treatment methods for ADHD. Teachers can be considered as one of the most valuable sources when it comes to diagnosis and referral for ADHD. It is also their responsibility to create a learning environment that is conducive to learning for all students, including those with ADHD. Munshi (2014) conducted a study to determine the level of knowledge about ADHD diagnosis and management of female teachers in primary and kindergarten settings. The study included 130 teachers in the Al-Rusaifah district in Mecca, Saudi Arabia. Results showed that more than half of the participants (58.9%) reported that they felt that they had insufficient knowledge of ADHD (Munshi, 2014). The study also revealed that teachers of 25 years old or younger had more knowledge of ADHD than older teachers. The overall results of this study proved that there was a definite need for comprehensive teacher training in the area of learning the symptoms, diagnosis,

and gaining an understanding of teaching strategies for these students.

In Saudi Arabia, teacher-training programs for ADHD are virtually non-existent. Although beginner teachers study Special Education modules in their degree training, however, it is not focused on teaching specifically about ADHD (Abed et al., 2014). Abed et al. (2014) studied on Saudi teacher's knowledge on the topic and found that teachers had some knowledge of the general characteristics of ADHD, but were very unclear about the potential causes and possible interventions that are available. This result, along with other studies emphasized that Saudi teachers needed more formal training about all the aspects of ADHD in school-aged children.

Students with ADHD can have considerable struggles in school if they are not understood or encouraged. Teachers need to understand what ADHD is, the symptoms and the case that the specific student has (Horstmann et al., 2009). This involves a lot of collaboration with parents and other school staffs. Understanding does not mean just the information about ADHD, but also an empathetic attitude towards the student. It involves knowing how to teach someone with ADHD or to use new strategies in the classroom.

Teachers should also be able to provide clear communication for the student, but also a regular system of communication for parents. School staff should create a way to collaborate together on behalf of the student to ensure that they are being consistent and helping as much as possible. Teachers can also seek to create a positive school culture that can encourage students to do their best and motivate them to do better (Horstmann et al., 2009). Looking for ways that the student can invest in their interests is another very healthy way for students with ADHD to develop better.

Another strategy involves teaching students to use cognitive-behavioral management. Most children or adolescences with ADHD struggle to apply self-management and self-discipline skills. So, it is vital that teachers should constantly introduce new ways to help students develop these skills (Litner, 2003). Through this, teachers are assisting students to take some control over their own hyperactivity and inattention by helping them learn self-management tools (Russell & Rostain, 2014). Using self-management techniques is especially helpful for students who find it very difficult to be adequately prepared for class. Once students learn how to implement self-management strategies, it gives them control over their behavior and also releases teachers from much of the responsibility of monitoring the student. Gureasko-Moore et al. (2007) studied on self-management of classroom preparedness and homework and concluded that there is a positive correlation between these self-management strategies and student preparedness.

Teachers should also ask their students to monitor the amount of times that they get distracted during class or begin to feel hyperactive (DuPaul & Stoner, 2014). When a student is able to see themselves acting out, they become more aware and can learn ways to deal with their inattention or hyperactivity. Self-reinforcement is another tool that teachers can equip students with. Once a student learns how to monitor and self-regulate their activities throughout class, they can begin to practice self-reinforcement strategies (Gureasko-Moore et al., 2007). Some of these reinforcements might include home privileges or rewarding themselves in some way. In order for a student to practice self-monitoring or self-reinforcement, they need to already be disciplined enough to do this. However, this may not be a strategy that a teacher would begin with ADHD students. A study by Schaffer (n.d.), in the Lansing School District in Michigan, US, explained that teaching student's organizational skills like note taking could significantly help their achievement levels. The study assessed seven high achieving students with ADHD and suggested that if ADHD students wanted to be successful they would need to master some ability in time management and organizational skills in order to help them get a higher GPA.

Teachers should also be aware of other aspects that happen in the classroom that may affect students with ADD/ADHD. For instance, using the concept of learning styles in helping foster a more conducive learning environment for students with ADHD is one way that can help teachers. Environmental factors also play an important role in this too, for instance, teachers should be aware of the noise level of their classrooms, lighting, temperature, seating arrangement, and oral stimulation. Oral stimulation is a key element, and helpful for many. Having ADD/ADHD students chew gum during the lesson can help meet their need for hyperactivity and literally bring their attention back to the classroom (Stevens, 1997b).

## 1. Instructional Strategies

Instructional strategies are perhaps one of the most vital aspects in teaching strategies. Teachers have much control over how their classroom culture and how the physical environment is laid out. For instance, teachers can make sure that students with ADHD are able to sit closer to the front of the class so that they can focus better on the teacher. Teachers can also create predictable classroom routines. Using routines helps students with ADHD to focus better and not to get hyperactive with unknown changes happening. This can be ensured when teachers write the daily schedule and assignments on the whiteboard when students begin the school day. According to Stephen Brock, it is ideal that students with ADHD are placed in smaller class sizes to ensure that they get more individualized attention (DuPaul & Stoner, 2014).

Hoff et al. (2005) observed in their study of variables in classroom routines that out of a 45-minute class period, roughly 10-15 minutes was spent with the teacher's attention being diverted to a disruptive student, specifically one with ADHD. In this study, the top three variables were when the ADHD student was sitting closely to their peers, having more less-preferred reading materials, or a combination of the two. It is also found that when a combination of the two variables was lessened, the student was moved to a different seat or given more preferred reading materials that their disruptive behaviour lessened to 3.5%, showing how relevant classroom factors are for ADHD students.

Teachers should also ensure that task duration and difficulty is not very long. For students with ADHD, difficult or lengthy tasks can cause students to become frustrated and act out more in class. This is where teachers need to be sensitive to the tasks that they are assigning to students, and if they begin to see students become frustrated, then they are able to step in quickly and help. Assignments are better given directly by the teacher rather than as an independent task. This helps students with ADHD to have more focus and keep their attention on the teacher. Keeping a sense of structure also helps as well as keeping eye contact with ADHD students and often repeating information so that it sticks better (Hallowell, & Ratey, 2013).

Barkley (2013) suggested that teachers should be very brief in explaining instructions and rules and if a student acts out to serve immediate consequences. This provides the structure that they need and helps support them better. He explained that teachers should also seek to reinforce students and create more incentives in their classrooms. This could be as simple as having constant praise when students do well and to use tokens for students to earn privileges when they show good behaviour. Furthermore, he also stressed the need for students to have self-awareness training where the child is involved in seeing his or her own behaviours. This may include a self-rating system, or a system of cues that the child and teacher know that can be given to help the student know to pay attention.

One issue that occurs is the concept of allowing students with ADHD to have extra time during exams and tests. However, the difficulty with this is that many students with ADHD feel stressed with the idea that their peers do not get extra time as well. Taylor and Houghton (2008) explained that some students will even refuse extra time because of peer pressure and anxiety about other students judging them. Allowing extra time for students has shown to help them, but there are many factors to consider before it is implemented.

Reading and writing are both academic tasks that can be a struggle for children with ADHD. Research from Undheim et al. (2011) observed that 80% of students with reading difficulties have ADHD or a learning disability. This makes it very challenging for these students to succeed in their schoolwork, since many

educational materials involve some kind of reading. Writing abilities of ADHD students is also another area that suffers. Jacobson and Reid (2010) found that students with ADHD are not able to write as long of compositions as regular students; in addition, the compositions were of lower quality and contained more errors. Reason being these skills may be so difficult because ADHD students are more challenged in organizing the writing process for the assignments. Along with this, teachers can also teach note taking strategies as well as strategies using acronyms. One example of this is given in the National Forum of Applied Educational Research Journal, where researchers taught students the acronym PLAN and WRITE. Where, PLAN translates into four points: paying attention to the prompt, listing the main ideas, adding supporting ideas, and numbering the ideas. WRITE translates into: work to develop a thesis statement, remembering the goals, trying different kinds of sentences, and using exciting words. When students learn these strategies, they can be better prepared to write essays (Casey et al., 2014).

Furthermore, teachers should seek new ways of presenting information rather than the same way again and again. This creates a new sense of excitement for students and helps to keep their attention on the teacher or task that has been given. Teachers may also choose to use animations, brightly coloured objects or paper to demonstrate their point (DuPaul & Stoner, 2014). Even using things that students are able to interact with is significantly helpful in keeping student attention focused.

## 2. Peer Tutoring

Peer tutoring has been found to increase the active engagement of ADHD students in classroom activities. It is usually recommended that these peer tutors be the same gender as the one they are helping, as well as have a higher academic record and better behavioural skills than the person they are helping. This type of tutoring occurs when students are divided into pairs to study. The tutor is often given a script about how they can help the student. Classroom peer tutoring is another method that is used. It is less common but just as successful. It is suggested that classroom peer tutoring take place after a tutor has worked with a student individually first. Both kinds of tutoring have shown to increase positive on-task

behavioural skills from students with ADHD. Additionally, it significantly helps students who struggle with independent assignments because it helps them focus and become more engaged in the assignment (DuPaul & Stoner, 2014).

### **3. Computer Assisted Instruction**

Computer assisted instruction is another strategy that teachers can implement in their classroom. Using computers with students with ADHD has been found to help students stay more on task and increase their productivity. Some computer software has been created specifically for students with ADHD to help stimulate their brains and help them become more focused and organized (DuPaul & Stoner, 2014). Computer based instruction is also a very effective way to improve task performance. Studies have found that students who use computer-assisted instruction actually show more positive signs of attention than those who have never used computer instruction.

### **4. Collaborating with Parents**

One of the best strategies that teachers can use is in collaborating with parents. When it comes to working with students with ADHD, it is very helpful for a teacher to connect with the parents and learn new ways to help the student. This is also very helpful for parents too, and a good way that they can work together for the student. Teachers should seek to have good relationships with parents of students with ADHD in order to encourage them and help them understand more of their child's ways of learning (Horstmann et al., 2009). This is also a way that teachers and parents can work to use consistent methods of teaching for the student. Together they can help build a routine and schedule. This should involve all teachers that work with the student and can be a schoolwide effort.

### **5. ADD/ADHD Student Rights in the Kingdom of Saudi Arabia**

The survey results also tie into what is currently provided for schools and educators regarding ADD/ADHD awareness. The Ministry of Education created the Saudi National Project, which offers approval for schools and educators to have programs for

ADD/ADHD, however, it is the responsibility of educational leaders in the Ministry of Education and in schools to implement them. These decisions are based on the interest of the Ministry of Education in the Kingdom of Saudi Arabia toward students with special educational needs of different categories of service and with the consent of the attorneys for boys and girls for opening programs to Attention Deficit Hyperactivity Disorder (ADD/ADHD). The Ministry has developed a visualization proposal to provide educational services for this category of students as well as a copy of the national project for children treated for ADHD. In addition, they provide a strategy in the provision of educational and psychological services for people with behavioral and emotional disorders, including a category for children with ADD/ADHD.

The Saudi National Project, seeks to serve students with ADD/ADHD and recommends that services should be constantly provided for this area of special education, including classes in public institutions, government agencies, and charitable, and private institutions. The goal of this is to improve the level of performance in students dealing with ADD/ADHD and provide effective evaluation of services. It is also intended to increase its effectiveness with specialists from the Ministry of Education, Ministry of Health, Ministry of Higher Education, Ministry of Social Affairs, Sultan Bin Abdul-Aziz Al-Saud Charitable association, and King Faisal Specialist Hospital. Together, these groups would be responsible for the follow-up project and implementation and evaluated on a regular basis, providing recommendations aimed at increasing the effectiveness.

### **6. Objectives of the Saudi National Project**

- ✓ Education and training of students to acquire the knowledge and skills for their educational level to the maximum extent of their capabilities in order to reach the highest levels of success, and to prepare them for independent life and enable them to integrate into society.
- ✓ Acceptance of equality of both genders in public education programs, and to see that students are diagnosed by a multidisciplinary team. In addition, to teaching them with regular students, unless they have other disabilities associated with in accordance

with the individual educational plan which determines the appropriate program for each student abilities and needs.

- ✓ If the student has other disabilities associated with ADHD/ADD, they will be accepted by his/her peers.
- ✓ The ministry awarded for the ADHD/ADD category of special needs, all necessary steps to ensure that they have success in their programs of study, especially those regarding testing, academic abilities, expressive capacity, and organizational skills.

#### IV. RECOMMENDATIONS

Based on the findings of this study, some recommendations are provided. Firstly, it is costly to have a child with learning disabilities, especially with the growing number of diagnosed cases of ADD/ADHD. Private tutors or private lessons can be extremely expensive for worried parents. The Ministry of Education should establish academic centers with moderate financial charges, that can be easily paid by the parents of children with ADD/ADHD. These centers should offer a selection of teachers in academic disciplines, such as mathematics, chemistry, and physics, as well as the rules of the Arabic language and the English language to help students understand their lessons and help them in their homework.

The establishment should support the importance and usefulness of physical education as being a compulsory subject taught in schools, for boys and girls alike. Sports help children with ADD/ADHD to use the energy that they store up throughout the day. Just 30 minutes of exercise before school can help children with ADHD to focus better and manage their moods better, even to the point where they may not need medication. Exercise also helps them get rid of negative attitudes, depression, and promotes self-confidence.

The establishment should create departments for special education services for students with ADHD/LD in all grades for both boys' and girls' schools, as well as in colleges and universities. These departments should include psychologists, educators, and social worker guides who provide them with support in the registry and acceptance process, as well as follow-up their cases

and provide academic solutions to problems that students are facing in schools and colleges.

School should seek cooperation from parents to help promote awareness through educational seminars designed to assist parents in dealing with their children and offering solutions that fit their problems. In addition, they can provide a section to immerse parents whose children suffer from the same disability type to build acquaintances between their children. This will provide some comfort to know that there are those who are suffering with the same problem and shared effort also creates friendships that allow them to offer support to each other.

Schools should provide guidance courses for these students, especially in middle and high school. However, these courses should also be offered in universities and colleges students who had never attended these types of courses in their schools. The courses should provide strategies to improve their academic performance and motivate them as students.

Educators should work with these students, accommodating them by reducing homework assignments and project work, extending the duration of test time, facilitating the quality of the final test questions, and adopting a strict confidential policy between educators and students.

Educators should provide spiritual guidance sessions to overall students at schools, reminding them that God created humankind with varying degrees of capacity and educational attainment. That God also endowed each person with special abilities that they should be thankful for. This is important to encourage students to respect others, provide help and assistance to them, and create a spirit of academic cooperation. This type of course will also reduce the proportion of bullying in schools and develop students' positive emotions and raises the proportion of social awareness and a culture of accepting others. This behaviour will reflect positive, safe, and secure school environments. Once created, it will produce a generation of parents who are conscious of the educational responsibility toward ADD/ADHD awareness for the generations to come.

As educators and parents, there is a responsibility to encourage students with ADD/ADHD and honor them in school in front of their peers. This might be done with certificates of appreciation to improve and motivate their performance, or by recognizing their superiority in works of art or in good performance in sports, and even providing awards. Any recognition is beneficial and can change the life of each student, but may have an even greater influence on those suffering from ADD/ADHD by perhaps changing their entire outlook on life.

## V. CONCLUSION

This study reveals that most of the teachers and student advisors surveyed are aware or familiar with ADD/ADHD, however, there are lot more to be done to generate awareness among the teachers and student advisors of schools in Saudi Arabia at large.

Most of the teachers and student advisors surveyed believe that ADD/ADHD is a real problem/diagnosis, while there are still some who believe that it is the result of indiscipline in their home and there are some who still cannot make a decision. This results only shows that there is a lack of understanding and perspectives about ADD/ADHD among teachers and student advisors.

More than 50% of both the teachers and student advisors believed that ADD/ADHD should be consider a category of special education and students with ADD/ADHD should be subject to special education program at schools.

A disturbing fact that had been discovered is that there is a significant lack of special education teachers in Saudi schools. Only 14.6% of the teachers and 195% student advisors surveyed had attended an ADD/ADHD training course and 85.3% teachers and 80.4% student advisors were not. Regular teachers must compensate for this need by being involved in development programs, discussing ADD/ADHD awareness and instructional strategies.

The results also revealed that only 3.85% teachers and 26.19% student advisors informed that their schools provide awareness programs about ADD/ADHD for them. Large number of teachers (96.1%) and student

advisors (73.8%) specified that their schools do not provide awareness program.

This study also provides information regarding various strategies or programs that teachers and student's advisors can implement in their classrooms and schools, respectively. The results of this survey illustrated that teachers have a strong need for learning and understanding new strategies to address ADD/ADHD. As teachers work together to form new strategies for students with ADHD, it can be an overwhelming task. However, through the use of new technology and various classroom strategies teachers are better able to combat the challenges they face with students with ADHD. Alongside teachers, parents should also involve to work with schools in helping the school become a better place for children with ADHD to learn. There are many improvements that can still be made, but the future is brighter when it comes to creating students that are more successful in their education.

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