



Applying Educational Accommodation for ADHD Pupils: Teachers and Parents Perspectives

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Applying Educational Accommodation for ADHD Pupils: Teachers and Parents Perspectives

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Abstract

Attention Deficit Hyperactivity Disorder (ADHD) is one of the disorders that threaten the learning quality of the students. The study aims to identify the degree of application of educational accommodations for students with attention deficit hyperactivity disorder (ADHD) in primary schools from teachers and parents' perspectives. Data have been collected from two samples: 70 primary school teachers and 62 parents of students with ADHD in the Eastern Province and Riyadh, who were chosen randomly. The results showed that there were statistically significant differences between the teachers' and parents' perspectives. In the degree of application of educational adaptations for this category of students, it came in favor of teachers. The results showed that there were statistically significant differences in the degree of application of adaptations according to the gender variable, which came in favor of female teachers, and the results also showed that there were no statistically significant differences between schools in terms of supported services for application of educational adaptations for students with ADHD.

Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is one of the disorders that threaten the learning quality of the students. Al-Karout (2014) stated that ADHD is a disorder that affect academic achievement and environmental adjustment among students at school. The author indicated various academic difficulties students with ADHD may face such as reading difficulties, reading comprehension, difficulties related to motor coordination and cognitive difficulties. Angelo and Giuliani (2012) mention that the school is the place where students with ADHD face difficulties the most. Therefore, the authors emphasized that it is critical for schools to plan educational programs including adjustment and services in order to support the learning journey for these students. The Kingdom of Saudi Arabia has been keen to protect the rights of individuals with disabilities, and to provide all methods of health, educational and professional care; To help them integrate socially, professionally, and academically to the fullest extent of their abilities. In (2021) the decision of the Saudi Council of Ministers on the national project to deal with children with ADHD in primary schools was approved. This is a first step towards enhancing the learning process of students with ADHD at all educational levels.

The Saudi Association for Attention Deficit Hyperactivity Disorder (Ishraq) (2017), also referred to the rights of

students with ADHD, which included the importance of providing this group of students with all the necessary facilities according to their abilities (absorptive, expressive, and written), and making the necessary adjustments, especially with regard to assessment methods and tests; This is to ensure their success in the different educational stages.

ADHD affects 5% of schoolchildren around the world. In Saudi society, the study of AlZaben et al., (2020) found that ADHD is prevalent among primary school students with 5.3% on females and 4.7% on males. The current research aims to study the degree of teachers' and parents' application of these modifications, which are based on the educational accommodations, so that they are commensurate with the characteristics of students with ADHD. The problem of this research differed from previous Arab studies in the field of attention deficit hyperactivity. The majority of the studies such as Sawalha (2019), Abu Oud (2018), and Suleiman (2015) focused on addressing or the degree of teachers' awareness of this disorder, and the challenges they face.

Students with ADHD

The Diagnostic and Statistical Manual of mental disorders (DSM-5; APA, 2013) classified Attention-Deficit/Hyperactivity Disorder (ADHD) as one of the neurodevelopmental disorders that appear in the early childhood and caused deficits in personal, social, and academic development. ADHD is a complex disorder; children with ADHD show persistent symptoms for six months and more impairing inattention and/or hyperactivity and impulsivity. According to the DSM-5, learning manifestations of children with ADHD are the most affected leading to failure in performing educational tasks.

Inattention causes an inability to pay attention to the details or listening to the instructions, often losing school materials such as pens and books, and having difficulty managing time. Hyperactive children find it difficult to sit still, can't wait for their turn, and often interrupt others while they are talking. Persistent attention and self-control are core skills for success in schools (Morsink et al. 2021). The results from previous studies have provided evidence that students with ADHD are likely to be struggled and achieve less academic performance compared to their typical peers (DuPaul et al. 2016, Morsink et al. 2021, Reid & Maag, 1998).

Academic difficulties have been linked with low IQ (Calubet al. 2019), learning disabilities (Saad and Al-Miraj, 2020) and decreased motivation (Morsink et al. 2021). Young & Smith (2017) stated that the majority of children learn by listening and observing teachers; These skills are incompatible with the characteristics of students with ADHD, as attention deficit and distraction affect the ability to obtain or maintain learning instructions in their working memory.

Teaching students with ADHD is a challenge for most teachers. One of the most common issues related to special education in the Middle East is that teachers rarely receive adequate training and have little knowledge of disabilities. ADHD is no exception. Suliman (2015) conducted a study to measure the level of awareness and knowledge of 102 teachers regarding ADHD. The results of the study showed that teachers' level of awareness was low. Surprisingly, it is the training variable that makes the differences between teachers. There were no

differences between the degree of teachers' awareness of the variable of experience or academic qualification. Similarly, the study of Swalha (2019) revealed low levels of ADHA awareness among 87 teachers in three domains: general, personal, and therapeutic.

Educational Accommodations for Student with ADHD

In response to the academic challenges that students with ADHD face, several strategies have been identified and examined. Based on the literature, there are two types of programs offered, one related to interventions and the other named educational accommodations. The interventions aim to make a change in the students' behavior and provide them with skills that help them learn better. The most common interventions that are exposed to students with ADHD are: medication, instructional intervention, and organizational skills training.

The use of interventions is effective with students with ADHD and has positive results, yet its implementation is often difficult, expensive and requires special teacher training Besides interventions. Many students with ADHD obtain educational accommodations. Harrison and colleagues (Harrison et al. 2013, 6) defined educational accommodations as “changes to practices in schools that hold a student to the same standard as students without disabilities but provide more benefit to students with a disability (i.e. differential boost) to mediate the impact of the disability on access to the general education curriculum”. In other words, educational accommodation is a change in the teaching practices and assessment methods to suit the student’s situation. Jansen et al. (2017) suggests that academic accommodations for students with ADHD should be provided in the light of an assessment of personal and environmental characteristics. In their study, they found that extended examination duration was most effective for students with ADHD. This may indicate that students with ADHD need more time for doing the activities.

Attention should be paid to the desire of students when using different accommodations, as some studies have found that students refuse to use them for various reasons, such as feeling stigmatized by other students (Denhart, 2008) or not being sure of its effectiveness to them (Magnus & Tøssebro, 2014). Therefore, the primary goal of academic accommodations is to reduce the negative effects of this disorder without affecting other students. The main research problem was set in a very general way according to the methodology of interpretative research and: What is the degree of application of educational accommodations for students with attention deficit hyperactivity disorder in primary schools from the point of view of parents and teachers?

Methods

Study Design

The study follows the descriptive approach. Malih and Al-Asouli (2020) indicate that the descriptive approach aims to understand and know the present to guide the future, and helps in providing data, facts and conclusions that explain reality; A prelude to taking the necessary steps and transformations for the better. The survey was undertaken among teachers and parents from Saudi Arabia.

Instruments

Two questionnaires were developed to collect the following: demographic information regarding the samples; and the teachers' questionnaire consisted of (54) items distributed over (6) axes, while the parents' questionnaire consisted of (36) items distributed over (4) axes. A number of methods were conducted to validate the study questionnaires from the literature including (Al-Khashrami, 2004; Barclay, 2008; Al-Sartawi, 2013; Shaheen & Al-Ajarmeh, 2013), and experts' opinions. However, Cronbach's correlation coefficient range between (.722 - .895) for the study questionnaires.

Respondents

The questionnaire was distributed among teachers and parents who participated in the special school as well as those who are having students with ADHD. 70 male and female primary school teachers from the eastern region of Saudi Arabia and Riyadh city, and 62 parents of students with ADHD. The sample members were selected by simple random method; so, all members of the research sample have equal opportunities to participate. All data have been collected prospectively. Ethics approval has been obtained from the ethics committee of Imam Abdulrahman bin Faisal University. Verbal formed consent for participated and publication of the results has been obtained from the parent and teachers.

Results and Discussion

The differences in the application of educational accommodation between the dimensions of the teachers' questionnaire and the total score were identified by the mean of the responses was calculated for each of the axes of the teachers' questionnaire, as well as the relative mean. The mean score was compared with the hypothetical theoretical average of the responses (3) at the level of significance (0.05) (see Table 1).

Table 1. The Level of the Total Educational Accommodation Measure and its Dimensions (Teachers)

The dimension	N	M	Total	Std. Error	t	p	Rank	Result
Create an appropriate learning environment	70	4.181	83.62	0.07	18.14	0.000	6	Agreement
Teaching accommodations	70	4.346	86.93	0.05	25.42	0.000	2	Strongly agree
Accommodation within the virtual classroom	70	4.280	85.59	0.05	25.04	0.000	4	Strongly agree
Tasks and homework	70	4.345	86.90	0.05	25.13	0.000	3	Strongly agree
Exams and assessments	70	4.159	83.19	0.07	16.24	0.000	5	agreement
Communication with parents	70	4.425	88.49	0.07	19.14	0.000	1	Strongly agree
General direction	70	4.288	85.76	0.04	28.94	0.000		Strongly agree

When comparing the mean with the theoretical average (3), it was found that the calculated (t) value is much greater than the tabular (t) value at a level of significance less than (0.05%, 0.01), and this means that there are significant statistically significant differences between the mean responses to the axes and the total score of the teachers' responses to the theoretical average. This indicates the existence of statistically significant differences in favor of the accommodations that teachers apply to the axes and the total score. When looking at the arithmetic averages of the axes of the questionnaire, it becomes clear the discrepancy in the level of application of educational accommodations for students ADHD.

Where the highest level was the dimension related to communication between the teacher and the family (the sixth dimension), while the lowest level was related to the first and fifth dimensions: the application of accommodations related to creating the learning environment, and the application of accommodations for tests and assessment methods. This is consistent with the study of Aba Oud (2018), as the author indicated a weakness in adapting the classroom environment to become appropriate for this group of students, as well as a weakness in adapting assessment methods to become suitable for students with ADHD. It is also evident from the result that the educational accommodations are applied to a high degree from the teachers' point of view, and this result can be attributed to the experience and awareness of the teachers participating in the research sample, as most of them are beneficiaries of the Saudi Society for Hyperactivity and Attention Deficit Disorder (Eshraq Association).

The differences in the application of educational accommodation between the dimensions of the parents' questionnaire and the total score, mean with the theoretical average of the responses were identified, as calculated (t) value is much greater than the tabular (t) value at a significance level less than (0.01). This indicates that there are significant statistical differences between the average responses of the four axes and the total score of the parents' questionnaire.

Considering the general trend of parents' responses, which is shown in Table 2, it is clear that parents agree to teachers' application of educational accommodations in primary schools for students with ADHD. This result is consistent with the studies conducted in western countries (Ilik, 2019; Harju's, 2018). Ilik (2019) found that parents' opinions were positive about the quality of academic support for their children.

Table 2. The Level of the Total Educational Accommodation Measure and its Dimensions (Parents)

The dimension	N	M	Total	Std. Error	t	p	Rank	Result
Accommodation within the virtual classroom	62	3.894	77.87	0.101	8.879	0.000	1	Agreement
Tasks and homework	62	3.839	76.77	0.100	8.421	0.000	4	Agreement
Exams and assessments	62	3.889	77.78	0.101	8.835	0.000	3	Agreement
Communication with parents	62	3.893	77.86	0.115	7.741	0.000	2	Agreement
General direction	62	3.878	77.55	0.097	9.012	0.000		Agreement

It also agreed with Harju's study (2018), which indicated that there were positive opinions of one of the families the researcher interviewed to verify the level of services provided to their children with ADHD in primary schools. However, this result contradicts with some Arabic studies; Suleiman (2015), Al-Qahtani (2017), and Sawalha (2019), all of which indicated the lack of awareness among teachers in dealing with students with ADHD in primary schools.

The differences in the degree of application of educational accommodation between schools that have support services and schools that do not have support services, the value of (t) and its statistical significance at the level ($\alpha < 0.05$) of the differences between the average responses in the degree of application of educational accommodations (on dimensions and on the total degree) between schools where supplementary aids are provided and schools that do not provide supplementary aids.

It is clear from the results presented in Table 3 that there are no statistically significant differences between the average responses of teachers in schools where supplementary aids are provided and teachers in schools that do not provide supplementary aids. The researchers explain this finding by referring to the contribution of the Saudi Society for Hyperactivity and Attention Deficit Disorder in sending the questionnaire to the teachers who benefit from their services, as the Society provides courses, workshops, and seminars for teachers.

Table 3. Differences between School provided Services Aids and Other School

Support Services		N	Mean	Std. Error	t	p
Create an appropriate learning environment	Y	41	4.100	0.09	-1.485	0.142
	N	29	4.295	0.08		
Teaching accommodations	Y	41	4.264	0.07	-1.881	0.064
	N	29	4.463	0.07		
Accommodation within the virtual classroom	Y	41	4.264	0.07	-0.351	0.727
	N	29	4.301	0.08		
Tasks and homework	Y	41	4.339	0.07	-0.126	0.900
	N	29	4.353	0.08		
Exams and assessments	Y	41	4.170	0.09	0.181	0.857
	N	29	4.144	0.11		
Communication with parents	Y	41	4.396	0.11	-0.455	0.651
	N	29	4.465	0.08		
Total	Y	41	4.254	0.06	-0.893	0.375
	N	29	4.335	0.06		

The differences in the degree of application of educational accommodation for students with attention deficit hyperactivity disorder in primary schools from the teachers' point of view, according to the gender variable, the value of t and its statistical significance at the level ($\alpha < 0.05$) of the differences between the average responses were identified. It is clear from the results that the average responses of the group of female teachers are higher than the male teachers on all axes of the teachers' questionnaire and on the total score. This result agreed with the

study of Aba Oud (2018), which indicated that there are statistical differences in favor of female teachers represented in (knowledge of the academic needs of ADHD students, behavior management, and teaching). While this result differed from the study of Suleiman (2015), which indicated that there were no differences between male and female teachers in the degree of their awareness of the disorder (see Table 4).

Table 4. Gender Differences

The gender		N	Mean	Std. Error	t	p
Create an appropriate learning environment	Male	25	3.942	0.12	-2.881	0.005
	Female	45	4.314	0.07		
Teaching accommodations	Male	25	4.147	0.08	-2.957	0.004
	Female	45	4.457	0.06		
Accommodation within the virtual classroom	Male	25	4.131	0.08	-2.225	0.029
	Female	45	4.362	0.06		
Tasks and homework	Male	25	4.188	0.11	-2.256	0.027
	Female	45	4.432	0.06		
Exams and assessments	Male	25	3.957	0.15	-2.165	0.034
	Female	45	4.272	0.07		
Communication with parents	Male	25	4.205	0.17	-2.268	0.027
	Female	45	4.547	0.06		
Total	Male	25	4.094	0.07	-3.510	0.001
	Female	45	4.396	0.05		

The differences in the degree of application of educational accommodation for students with attention deficit hyperactivity disorder in primary schools between the parents' point of view and the teachers' point of view were identified. The results in Table 5 showed that there were significant differences between teachers and parents in terms of application of educational accommodation for students with ADHD in primary schools.

Table 5. Differences between Parents and Teachers on the Services Provided

The domains		N	Mean	t	p
Accommodation within virtual classrooms	Teachers	70	4.280	3.537	0.001
	Parents	62	3.894		
Assignments and homework	Teachers	70	4.345	4.619	0.000
	Parents	62	3.839		
Exams and assessments methods	Teachers	70	4.159	2.228	0.028
	Parents	62	3.889		
Communication between teachers and parents	Teachers	70	4.425	3.960	0.000
	Parents	62	3.893		
Total	Teachers	70	4.288	3.980	0.000
	Parents	62	3.878		

Conclusion

The results show statistically significant differences between parents and teachers on the degree of application of educational accommodations for students with ADHD in favor of teachers. The researchers explain the reason for the positive responses due to the presence of support services for this group of students in the schools to which the study was applied. The questionnaire was also published to the beneficiaries of the Saudi Society for Hyperactivity and Attention Deficit Disorder, who numbered (70) teachers and (62) parents, whom the researcher contacted to ensure that the tool reaches teachers of students diagnosed with ADHD, as well as parents. Since the majority of individuals benefiting from the services of the association and whose schools support services are applied, they are most likely aware of the services and adaptations provided to this group of students.

Limitations

The findings of this study must be acknowledged considering some limitations. First, regarding the study tool. The scale items varied and included many general educational practices that teachers normally apply with all students such as clarifying the lesson objectives at the beginning of the study session. The items of the scale were not only specific to the educational adaptations of hyperactive students. This may have contributed to the higher results of the scale. It may be appropriate for future studies to address this and to limit the scale to the educational practices for students with ADHD.

Also, regarding the study sample, due to the difficulty of accessing the appropriate sample for the research, contact was made with the Saudi Association for ADHD (Eshraq), which in turn sent the scale to the teachers who work under their scope. Therefore, most of the teachers participating in the study are affiliated with the association, which in turn provided many workshops and seeks to develop their performance. Hence, it is also important for future studies to consider this matter and select a random sample to ensure the reliability of the results.

Recommendations

This study investigated the degree of the application of educational accommodations for primary school students with ADHD in Saudi Arabia. In general, the results of the research indicate that the teachers participating in the study are aware of the educational accommodations for students with ADHD. However, some of the accommodations were applied to a slighter degree, especially those related to assessment methods and creating appropriate learning environment.

Based on the study results, the study recommended to provide teachers with workshops and courses on methods of educational accommodations, especially those related to assessment methods and creating an appropriate learning environment, which ranked last among educational accommodations that are applied in primary schools . Developing the educational accommodations used during teaching process and varying them according to the individual needs of the student Collaborating with a team work to deal with students ADHD in various stages of education.

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