

**Effectiveness of a proposed motor program to decrease the severity of attention deficit hyperactivity disorder for learners in primary school
(Study on learners in primary school)**

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Abstract

The main objective of this study is to investigate the effect of a proposed motor program to reduce the degree of attention deficit hyperactivity disorder by applying it to a sample of 24 learners in primary school who suffer from the degree of attention deficit hyperactivity disorder where the researcher used the experimental method in this study by selecting an experimental group and a control group, the achievement of a proposed motor program for the purpose of reducing the severity of attention deficit hyperactivity disorder among learners in primary school ,the statistical treatment showed that there are statistically significant differences between pre and posttest ,this proves the impact of the proposed motor program in reducing the degree of attention deficit hyperactivity disorder.

Keywords motor program; attention deficit hyperactivity disorder; learners in primary school

1. INTRODUCTION

Attention deficit hyperactivity disorder (ADHD) has been known as a neurodevelopmental disorder, according to (DSM-5), the prevalence rate of this disorder in most cultures is about 5% in children and 2.5% in adults (American Psychiatric Association, 2013). It is characterized by pervasive attention deficit disorder, hyperactivity and impulsivity which often merge together and form a whole complex)Rabiner, Murray, Skinner, & Malone, 2010

Despite the years of research and the advances in understanding and treating children with (ADHD), the disorder continues to be a serious educational and social impairment (Weiss & Hechtman, 1993).

Longitudinal studies on preschool children with (ADHD) suggest that this disorder remains almost unchanged in various areas over time and a large proportion of preschool children are at risk of (ADHD) in the future (Rajendran et al, 2013). These children have trouble in areas such as future planning, problem solving and behavioral problems, the behavioral traits are often associated with frontal cortex disorders.

Attention deficit hyperactivity disorder (ADHD) is considered one of the most frequently diagnosed psychiatric childhood disorders, it has an effect on 3–5% of school-aged children, and brings about difficulties in academic and social interaction in relation to both parents and teachers.

Recent research into the differences in brain waves between people with (ADHD) and those without the disorder indicate that there are noticeable differences (Mazaheri et al, 2013). they found that by studying the readings from an electroencephalogram (EEG) of 23 children they were able to distinguish not only between (ADHD) and non-(ADHD) students, but were able to accurately separate and identify the different subtypes. unfortunately, children that live in rural or northern.

Most children with (ADHD) also have problems making and keeping friends, and this is a great concern for parents, it is hard for parents to see their child being ignored when invitations for birthday parties are passed around or sitting home alone instead of having a play-date, some children with (ADHD) have even more serious social problems. They are teased by classmates, excluded from recess games, and socially isolated. Then there is the problem of self-esteem. children with (ADHD) are often magnets for criticism and negative attention. and if your child is

on medication for (ADHD), he might have his own concerns about why he is different from other children. see your child trying his new skills, make sure to give him plenty of praise, according to the diagnostic and statistical manual of mental disorders, the prevalence of (ADHD) in school-age children is estimated between 3% and 5%, or greater than 2 million children nationwide. (Buncher, 1996, p. 43).

Some children have severe difficulties paying attention, controlling themselves, and sitting still. these are symptoms of attention-deficit/hyperactivity disorder (ADHD) Conventional treatments for (ADHD) are therapy and medication, findings from a modest number of cross sectionals, longitudinal, short bout, and multi-week intervention studies show benefits of physical activity for brain function, thinking, and behavior of children with (ADHD). Physical activities that are engaging and cognitively challenging may benefit children's cognition most. Short bouts of moderate-intensity aerobic physical activity improve energy, focus, and performance on puzzlelike tasks, but we do not know much about how they affect children's classroom behavior in the real-world, unfortunately, children with (ADHD) are more likely to be sedentary and obese as adults, potentially because they are less likely to develop adequate fundamental movement skills or participate in structured physical activities (for example, sports) than typically developing children, and are more likely to exceed recreational screen time guidelines.

Findings show that participation in a physical activity program improves muscular capacities, motor skills, behavior reports by parents and teachers, and level of information processing, structured physical activity program may have clinical relevance in the functional adaptation of children with (ADHD), this supports the need for further research in the area of physical activity with this population.

In recent years, we have seen a dramatic increase in exercise-related research, and the cognitive benefits of physical activity have begun to be examined in children, young adults and elderly populations. Most of the developmental exercise research to date has dealt with the effects of physical activity on academic achievement, cognition, and measures of IQ. One such study examined the physical fitness and body mass index (BMI) of (259) third and fifth grade public school students, in relation to academic achievement (Castelli, Hillman, Buck & Erwin, 2007).

Physical activity (PA) has many health benefits, both physical and psychological, (PA) has been linked to improved cognitive functioning, superior overall health, and enhanced emotional well-being in populations ranging from

school-age children to older adults. There has been less research, however, examining the benefits of (PA) in atypical preschool populations. the present study examined the efficacy of a motor program intervention in on learners in primary school at risk for attention deficit hyperactivity disorder (ADHD). symptomatology, response inhibition, and physical activity were measured. Results provide support for the efficacy of motor program as an alleviative tool in learners of primary school with (ADHD), This research is some of the first to use objective measures to examine motor program as viable intervention in atypical learners populations.

study problem:

There are many questions facing teachers today on how to manage learners who have been diagnosed with attention deficit hyperactivity disorder, how do teachers handle the learners who are always fidgeting in their seat? how do teachers deal with children who are constantly playing with items on their desk and what can teachers do to focus learners on their schoolwork? how do teachers prevent learners with attention deficit hyperactivity disorder from continuously calling out all the time? These are some of the questions facing teachers today with the increase of students being diagnosed with attention deficit hyperactivity disorder.

The definitions of attention deficit hyperactivity disorder are based on maladaptive high levels of impulsivity, hyperactivity and inattention ,They are all based on observations about how children behave: impulsivity signifies premature and thoughtless actions hyperactivity a restless and shifting excess of movement, and inattention is a disorganized style preventing sustained effort, all are shown by individual children to different extents, and are influenced by context as well as by the constitution of the person (stephen v. faraone, 2018 P,15).

attention deficit hyperactivity disorder has traditionally been viewed as a problem related to attention, stemming from an inability of the brain to filter competing sensory inputs such as sight and sound. Recent research, however, has shown that children with attention deficit hyperactivity disorder do not have difficulty in that area, Instead, researchers now believe that children with (ADHD) are unable to inhibit their impulsive motor responses to such input (Barkley, 1997, P65).

According to (**Barkley**) (1990), “parent-child relationships would influence and be affected by the structural and transactional relationship within the child's nuclear family, extended family, and community” (Barkley,1990 p. 433).

(ADHD) are well documented and highlight the potential of physical activity for helping children with (ADHD). Children who are physically active have fewer

cardiovascular risk factors and behavioral problems in addition to having superior motor fitness, motor skills and academic achievement as compared to physically inactive peers (Blair & Connelly1996,193).

Schools that offer physical activity programs have shown positive effects one evidence for the effects of physical activity on catecholamine function in humans is not as prominent, but a recent study specific to (ADHD) provides support for increased dopamine activity following acute exercise. Tantillo, Kesick, Hynd, and Dishman (2002) studied the rate of spontaneous eye blinks, the acoustic startle eye blink response and motor impersistence among 8–12-year-old children (10 boys, 8 girls) with attention deficit hyperactivity disorder after acute exercise at sub maximal and maximal intensities. these tasks are related to dopaminergic activity in the brain, specifically in the caudate nucleus, spontaneous eye blink rates have been used to gauge dopamine levels in (ADHD) children and are correlated positively with dopamine levels in the caudate nucleus. The caudate nucleus is a region of the brain where morphological differences have been found in the brains of children with (ADHD) (Taylor, 1999,158).

Physical and sport activity is also one of the active spaces for the active and serious contribution to reduce the level of (ADHD) ,therefore educational programs have been prepared in such a way that motivate students to get rid of the hyperactivity degrees, the school is considered as a social necessity established to satisfy the psychological and educational needs that the family was unable to satisfy ,after the complexity of life, the programs offered to adolescent children in schools on a large scale are important in and resisting social and peer pressures that can lead to antisocial behavior, workers in the educational sector should put strategies and they must be developed to reduce the hyperactivity degrees of learners in primary school ,and we must use physical and sport's activity to reduce the hyperactivity degrees through the educational attitudes planned by the teacher of physical education and sports, he proposed motor programs through their educational content contribute to reducing the level of the attention deficit hyperactivity disorder among learners in primary school through the tasks included in the program of physical education and sports class. the researcher supposed if the proposed motor program reduces the level of the attention deficit hyperactivity disorder among learners in primary school?

Partial questions

- are there statistically significant differences between the mean scores of the experimental group before the application of the proposed motor program and

the mean scores for the same group after the application of the proposed motor program on the measure of hyperactivity and attention deficit in favor of Post-test?

- are there statistically significant differences between the mean scores of the control group before implementing the program and the mean scores for the same group after implementing the program on the scale of hyperactivity and attention deficit?
- are there statistically significant differences between the mean scores of the experimental group and the mean scores control group after implementing the program on the scale of hyperactivity and attention deficit?

General hypothesis:

The proposed motor program during the physical education and sports seance decreases the degree of attention deficit hyperactivity disorder among learners in primary school

Partial hypotheses:

- There are statistically significant differences between the mean scores of the experimental group before the application of the proposed motor program and the mean scores for the same group after the application of the proposed motor program on the measure of hyperactivity and attention deficit in favor of Post-test.
- There are no statistically significant differences between the mean scores of the control group before implementing the program and the mean scores for the same group after implementing the program on the scale of hyperactivity and attention deficit.
- there are statistically significant differences between the mean scores of the experimental group and the mean scores control group after implementing the program on the scale of hyperactivity and attention deficit

Study aims :

The main aim of this study is to study the impact of the proposed motor program during the physical education and sports seance, in decreasing the degree of hyperactivity disorder, by applying it to a sample of learners in primary school and who suffer from attention deficit hyperactivity disorder problem.

Importance study: the importance of this study is reflected in the importance of the proposed motor program to decreases the degree of hyperactivity disorder among learners in primary school , and the importance of this study lies in the importance of the proposed motor program and its relationship to hyperactivity

disorder, in providing.

Key words:

-Motor Program: Motor games are one of the most prevalent and common games in the world of childhood (running, jumping, throwing all kinds, handing and holding the ball), because it is a targeted educational activity aimed at the development of the child on his abilities to overcome the obstacles to reach the goals of the game (**Majid, 2000, pp. 11, 13**).

-operative definition: It is a guided activity doing by children to develop their mental, physical, and emotional behavior and abilities, it achieves at the same time pleasure and entertainment, the play activities are invested in acquiring knowledge, bringing the principles of science to children, and learning under the guidance of their teacher of physical education and sports, these motor programs contribute through their educational content to reduce the degree of hyperactivity disorder among learners in primary school.

-hyperactivity disorder: hyperactivity is defined as an acute and continuous physical movement activity of the child so that the child cannot control his physical movements and spends most of his time in continuous movement, , this phenomenon in most cases is due to brain injuries or it may be for psychological reasons at the age of four or five year (khawla Ahmad, 2000, p. 179) Boutros defines it as a child's overactive movement, with impaired focus and many random movements (Boutros, 2008, p. 402) .

-Attention deficit hyperactivity disorder (ADHD) is the term used to describe children who are inattentive, impulsive, and hyperactive” (Stevens et al., 1995, p. 761).

It is every mental, behavioral or biological process that is expected on the energy of the organism and is characterized by spontaneity rather than response. (Zaki, 1977, p. 8).

The hyperactivity disorder: The hyperactivity disorder in this study means excess movements done by learners in primary school towards his classmates and towards himself make them moving all the time with lack of attention.

-Physical education and sports lesson: Physical education and sports is a form of academic subjects such as physics and language, to form the human body using motor activities such as exercises and various games (collective, individual) that are conducted under the teacher of physical education and sports prepared for this purpose (Mohammed Awad , 1992, p. 94).

-operative definition: The physical and sports education lesson is a set of sports

activities, each sport activity has specific objectives, in this study, the researcher tries to exploit the activities that contribute positively to raising the level of social responsibility among the students of the middle age, and adapted it for this purpose and create a guiding atmosphere during these activities.

2. -Previous studies:

Study n°(1): The behavioral effects of increased physical activity on preschoolers at risk for attention deficit hyperactivity disorder by (Jasmin L.)(2011), Masters theses roberts (University of Massachusetts Amherst).

Physical activity (PA) has many health benefits, both physical and psychological, (PA) has been linked to improved cognitive functioning, superior overall health, and enhanced emotional well-being in populations ranging from school-age children to older adults. There has been less research, however examining the benefits of (PA) in atypical preschool populations. the present study examined the efficacy of a (PA) intervention in preschool-aged children at risk for attention deficit hyperactivity disorder (ADHD) symptomatology response inhibition, and physical activity were measured at three time points over a 6-month period, results provide support for the efficacy of (PA) as an alleviative tool in preschoolers with (ADHD), this research is some of the first to use objective measures to examine (PA) as viable intervention in atypical preschool populations.

Study n°(2): (The Knowledge and beliefs Concerning (ADHD) held by children, parents and teachers in saudi arabia) by (Mohaned Ghazi Abed) (2013) submitted in accordance with the requirements for the degree of Doctor of Philosophy The University of (Leeds school of education).

The rationale behind this study is the exploration of the knowledge and beliefs of children with (ADHD), their parents and teachers in relation to (ADHD). An ecological framework has been used in order to achieve an understanding and to interpret data gained through this research, however, although this study considers the social model of disability, the medical one, which is recognised as the dominant framework in Saudi Arabia, was not overlooked. The results of the survey based on the responses of 58 children to the (ADHD) Knowledge and Opinions Questionnaires and subsequent interviews showed positive choices of evidence-based medication and psychosocial treatment, and an understanding of the range of effects of (ADHD), as well as the possible handling strategies. The children were able to determine environments in which (ADHD) made it difficult for them to be, and also identify adults who they considered capable of assisting them with their

condition. The data gained from The (KADD-Q) (Knowledge about Attention Deficit Disorder Questionnaire) and subsequent interviews with a sample of (40) parents and (54) teachers reveals that the levels of knowledge of parents and teachers in regard to (ADHD) characteristics were considerably higher than their knowledge of (ADHD)-related causes and treatment.

Study n°(3): (Attention deficit hyperactivity disorder (ADHD): identification, assessment, contextual and curricular variability in boys at(KS1) and (KS2) in mainstream schools)by(inda Wheeler)(2007) a thesis submitted in fulfillment of the requirements of Coventry University for the degree of Doctor of Philosophy (2007) University of Worcester.

The concept of attention deficit hyperactivity disorder (ADHD):in children presents conceptually controversial and practical challenges on several levels. These include the theoretical basis of the disorder, its manifestations in everyday life and identification and assessment procedures. The field has attracted considerable attention from professionals in the areas of education, psychology and health. One of the major areas where (ADHD) behaviors can present problems is in school settings. The present research derives from, and addresses, English educational perspectives and practices, based in school settings. It was primarily concerned with seeking new insights and generating testable hypotheses concerning incidence, multi-professional identification, assessment and management of the condition and situational variability in (ADHD) symptoms in schools. The exploratory study was in two related parts, These were undertaken concurrently using a combination of quantitative and qualitative techniques and data gathering methods.

-Study n°(4): Preservice teachers' knowledge and opinions oncerning students with Attention deficit hyperactivity disorder (ADHD) by(Susan Robin) (1997), Thesis Submitted to the Faculty of (Graduate studies and research in partial fulfillment of the requirements For the degree of master of education in educational psychology) (University of Regina).

this study examined the knowledge of preservice teachers consuming attention deficit hyperactivity disorder (ADHD) and their opinions reflecting both their perceptions of their experience, training and readiness to teach children with this disorder, and their attitudes concerning working with such children. a questionnaire based on current research in the area of (ADHD) was developed by the researcher and distributed to approximately one hundred students in their final semester of the (B.Ed) program at the University of Regina. it was completed and returned by sixty-four of these preservice teachers. it included a series of questions pertaining to

demographics, the knowledge of preservice teachers regarding (ADHD) and opinions reflecting their perceptions and attitudes concerning teaching children with this disorder, the results of the study indicated that the majority of preservice teachers had taken university classes which provided information concerning (ADHD) and had some experience working with children with this disorder. The majority of participants perceived themselves as somewhat knowledgeable about (ADHD) and somewhat ready to work with students with this disorder. However, feedback from the respondents indicated that there were a number of preservice teachers who felt unprepared by their training to effectively teach students with (ADHD) and desired more information about this disorder.

Study n°(5): (Impact of attention deficit hyperactivity disorder (ADHD) on parents and children: what are the lived experiences of a parents with a child with (ADHD)? by (Deborah K. Taylor)(1999).

a thesis Submitted to '(Grand valley state university in partial fulfillment of the requirements for the degree of master of science in nursing Kirkhof school of nursing).

The purpose of this study was to seek a fuller understanding of and to identify and describe the underlying themes of the lived experiences of a parent with a child with attention deficit hyperactivity disorder (ADHD) The Husserelian phenomenological and Giorgi methods of research were utilized in this study. Four meanings emerged: 1) discovery, 2) searching for control, 3) struggling for normalization/overcoming obstacles, and 4) hope. The synthesized structural description of the experience that emerged was described as an emotional experience that progressed in stages that were cyclic and ongoing in nature. The data suggests that chronic sorrow, as it has been defined by Copley & Bodensteiner (1987), is a plausible emotional phenomenon in these parents, Clinical practitioners can utilize the findings from this study to plan and implement strategies that will help these parents move toward a response that will allow them to function and cope with their situation.

-Study n°(6): (Attention and (ADHD): measurement and medication)by (Kimberly Blair Saliba) (2014)A thesis submitted in conformity with the requirements for the degree of doctor of philosophy graduate department of applied psychology and human development ontario institute for studies in education university of Toronto). Investigated the validity of the computation method for calculating the attention network scores, as measured by the (ANT) paradigm, as well as its test-retest

reliability (e.g., across test-retest intervals of several hours as well as across an interval of two weeks). Twenty adult participants with (ADHD) (2 females, 18 males) aged 21-65 ($M=39.50$, $SD=10.83$) were administered the ANT seven times across different time frames (evening, morning, and ranging from hours to 2 weeks). A strong relationship was found between flanker or cue conditions used to compute network scores. Test-retest reliability of the orienting network reaction time scores was adequate in adults with (ADHD), and that for the executive network was moderate across all conditions. By contrast, the alerting network scores revealed adequate reliability across a short time frame (6-8 hours, relatively unpracticed), but lower reliability in well-practiced performance.

-Study n°(7): Increasing attentiveness in students with (ADHD), by (Erich Sack)(2016).

A thesis submitted to the Faculty of Social and Applied Sciences in partial fulfillment of the requirements for the Degree of Master of Arts Learning and Technology Royal Roads University Victoria, British Columbia, Canada

Attention Deficit/Hyperactivity Disorder (ADHD), is a very social problem and is one of the most common mental health conditions in children (Statistics Canada, 2012). With recent changes in camera resolution, i designed an app that tracked the students' eye-movements and adaptively delivered rewards and reminders to modify their behaviors. The goal of this research was to increase attentiveness and reduce distractibility in students aged between six and thirteen diagnosed with (ADHD), additionally, it tried to determine what feedback could be provided to help them in their study efforts, all of the participants that completed the intervention reported increased attention and decreased distractibility. Additionally, most of the participants reported transferability of these behaviors to an external environment, specifically, school. One participant indicated he had better self-esteem as a result of the intervention. These results show that a technological intervention can help students with (ADHD), increase their attentiveness and reduce their distractibility.

3. Field Study:

-scoping Study: we have done the scoping study at 5 primary schools across the territory state of (M'sila), where the researcher conducted a meeting with the teachers of physical education and sports working in these institutions in order to listen them about the level of deficit attention hyperactivity disorder among learners in primary school, they were also questioned about the services that physical and sports education teachers can provide to reduce the degree of hyperactivity disorder.

-study Methodology: we used an experimental method Measurement and re-

measurement in a comparative manner in this study.

3-study Sample: The sample consisted of (12) male and female students divided in two groups, (12) members for the control group and (12) members for the experimental group, they were selected from one school.

-study Tools: to collect the data we used scale of deficit attention hyperactivity disorder in this study in order to answer the questions of the study, then the researcher exposed this scale for many experts the researcher also used test of (T-test)

-Study variables:

-Independent variable: motor program

-dependent variable: deficit attention hyperactivity disorder among learners in primary school.

Fields of study :

-Spatial field: This study was done in the primary school Mohamed Emreiziga, situated in state of (M'sila).

-Temporal field: This study was extended during the two seasons (2019/2020) in which the scoping study was done, and the academic season (2019/2020) where the application of the motor program started from October until late December (2020)

4. Psychometric characteristics of the deficit attention hyperactivity disorder scale:

The degree of correlation of axes and the level of significance between the pre and post measurements:

Table :(01) shows the correlation of axes and the level of significance between the pre and post measurement:

Axes	pre and post measurement	Correlation coefficient	Sig
The first axis Deficit attention	pre and post	0.380	0,000
The second axis hyperactivity	pre and post	0.350	0,000
The third axis Aggressiveness	pre and post	0.300	0,000
Total	Total	0.387	0,000

we found that the correlation coefficient between the pre- and post-measurement of the first axis related to the deficit attention was 0.380, while the second axis related to hyperactivity was 0.350 and the third axis related to Aggressiveness was 0.300 at level of 0.00, In the but if we look at the total measurement, the correlation coefficient

between the pre and post measurements was 0.387 at the level of 0.00

Table n :(02)

a- validity:

Calculate the internal consistency between the results of all three axes and the overall score of the deficit attention hyperactivity disorder scale between the results of all the axes (03) and the total results of the deficit attention hyperactivity disorder scale the correlation coefficient in the first and third axis respectively was 0.73 and 0.70 , at the significance level 0.0 , For the second axis it is the largest value at the significance level of 0.01 reached 0.80

The first axis Deficit attention	0.73
The second axis hyperactivity	0.80
The third axis Aggressiveness	0.70
total score scale	1.00

b-stability: Table :(03)

Alpha Cronbach	Items
0.800	28 28

Table (03) shows that the stability coefficient for the deficit attention hyperactivity disorder scale was 0.800 It is a value that reflects the degree of stability of the tool , We can say that there is a statistical significance between all statements of

the axis.

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Field application procedures: The program's content includes a set of (09) seances of physical education and sports, The program composed by a group of social and motor games that decrease the deficit attention hyperactivity disorder among learners in primary school that make them Integrate into team play the games proposed to activate the various body organs, and increase their technical skills and physical abilities with the development of their social and moral skills and stability through guidance interventions and the use of guidance techniques by the teacher of physical education.

5. Study results:

Presentation and analysis of the first hypothesis results: there are differences in the mean scores of learners in primary school (members of the experimental group) on of deficit attention hyperactivity disorder scale between the pre and post measurement.

Table :(04) Axes of scales

Axes	pretest values N=12		posttest values N=12		(T) CA L	Degree Freedom	(T) TAB	Sig
	M	S	M	S				
The first axis Deficit attention	16.8	4.130	13.40	4.20	4.15	12	2.14	Sig at 0.01
The second axis hyperactivity	15.10	2.500	11.5	2.30	5.30	12	2.14	Sig at 0.01
The third axis Aggressiveness	20.80	2.70	18.20	2.21	3.20	12	2.14	Sig at 0.01
Total	52.86	6.70	45.30	6.70	5.62	12	1.14	Sig at 0.01

The tabular value of (T) at the significance level 0.01

The value of **T**, which is equal to **(5.62)**, is greater than the tabular value it is significant at the level of **(a = 0.01)** The significance level of the total results of the scale is **0.01**. It is less than **(0.05)** and therefore can be said that there are statistically significant differences in the scores of the members of the experimental group on the total results of Deficit attention hyperactivity disorder scale in favor of the post-application, This confirms the effectiveness of the proposed motor program in reducing the level of deficit attention hyperactivity disorder among the members of the experimental group.

- Presentation and analysis of the second hypothesis results:

There are no statistically significant differences between the mean scores of the

control group before implementing the program and the mean scores for the same group after implementing the program on the scale of hyperactivity and attention.

Table :(05)

The tabular value of (T) at the significance level 0.01

Axes	pretest values N=12		posttest values N=12		(T) Value calculat e	Degree Freedo m	(T) Value tabulate	Sig
	M	S	M	S				
The first axis Deficit attention	15.8	3.230	15.4 0	3.20	0	12	2.14	Sig at 0.01
The second axis hyperactivity	14.20	2.300	14.5	2.60	0.512	12	2.14	Sig at 0.01
The third axis Aggressiveness	21.70	2.60	19.4 0	2.60	0	12	2.14	Sig at 0.01
Total	51.80	6.60	52.3 0	6.80	0.661	12	2.14	Sig at 0.01

The tabular value of (T), appears to be greater than the calculate value therefore, it is possible to say that there are no statistically significant differences between the mean scores of the control group before implementing the program and the mean scores for the same group after implementing the program on the scale of hyperactivity and attention.

- Presentation and analysis of the third hypothesis results: there are statistically significant differences between the mean scores of the experimental group and the mean scores control group after implementing the program on the scale of hyperactivity and attention deficit.

Table :(06)

Axes	Expiremental groupeN=12		Control group N=12		(T) Value calculat e	Degr e Fre ed om	(T) Value tabulate	Sig
	M	S	M	S				
The first axis Deficit attention	13.82	3.130	16.40	4.10	4.03	28	2.14	Sig at 0.01
The second axis hyperactivity	12.10	2.300	14.5	2.20	5.20	28	2.14	Sig at 0.01
The third axis Aggressiveness	18.20	2.40	19.20	2.15	3.15	28	2.14	Sig at 0.01
Total	42.86	6.30	48.30	6.40	5.50	28	1.14	Sig at 0.01

It is clear from table (06) that the tabular value t is 5.50, is greater than the tabular

value, and therefore is significant at the level of significance ($\alpha = 0.05$). Thus, it can be said that there are statistically significant differences between the mean scores of the experimental group and the mean scores control group after implementing the motor program on the scale of hyperactivity and attention deficit disorder.

6. Main Results:

The results of the study revealed that:

- There are statistically significant differences between the mean scores of the experimental group before the application of the proposed motor program and the mean scores for the same group after the application of the proposed motor program on the measure of hyperactivity and attention deficit in favor of Post-test.
- There are no statistically significant differences between the mean scores of the control group before implementing the program and the mean scores for the same group after implementing the program on the scale of hyperactivity and attention deficit
- there are statistically significant differences between the mean scores of the experimental group and the mean scores control group after implementing the program on the scale of hyperactivity and attention deficit.

Main Recommendations:

The majority of the research in regards to (ADHD) has been directed toward diagnostic means and medical treatments; however, there is some means and methods as motor programs.

Provide the necessary means to reduce the level of hyperactivity and attention deficit.

The teachers of physical education and sports they must to exploit the seance of physical education and sports for decreasing the level of hyperactivity and attention deficit

7. References

1. -Buncher, P. (1996). *Attention-deficit hyperactivity disorder: A diagnosis for the '90s*. Nurse Practitioner. 21. 43-65.)
2. -Stephen v. Faraone, 2018 *Attention deficit Hyperactivity disorder*, British Library P,15, London.
3. -Barkley, R. A. (1997). *Behavioral inhibition, sustained attention, and executive functions: constructing a unifying theory of (ADHD)*. Psychological Bulletin, 121:1, 65-94.)
4. Barkley, R. (1990). *attention-deficit hyperactivity disorder: A handbook for*

diagnosis and treatment. New York: Guilford Press.

5. -Blair, S. N., & Connelly, J. C. (1996), *How much physical activity should we do? The case for moderate amounts and intensities of physical activity*, research Quarterly for exercise and sport, 67(2), 193-205.
6. -(Taylor et Elsworth, M. S. Lawrence, J. R. Sladek, R. H. Roth, and D. E. Redmond (1999). *Spontaneous blink rates correlate with dopamine levels in the caudate nucleus of MPTP-treated monkeys*. Experiments in Neurology, 158, 214.
7. -Yahya Ahmad Khawla, 2000, *behavioral and intolerant disorders*. Dar Al-Fikr for Printing and Publishing, Amman.
8. -Boutros Hafez Boutros, 2008, *Psychological problems and their treatment*. Al Masirah Publishing House, Jordan.
9. -Weiss, G., & Hechtman, L.T. (1993). *Hyperactive children grown up*. 2nd ed. New York: Guilford Press.
10. -Castelli, D., Hillman, C., Buck, S., & Erwin, H. (2007), *physical fitness and academic achievement in third- and fifth-grade students*. Journal of Sport & Exercise Psychology, 29(2), 239-252.
11. -Bresnahan, S. M., Anderson, J. W., & Barry, R. J. (1999). *Age-related changes in quantitative EEG in attention-deficit/hyperactivity disorder*. Biological psychiatry, 46(12), 1690-1697.
- Jasmin L. (2011), *The behavioral effects of increased physical activity on preschoolers at risk for attention deficit hyperactivity disorder*, Masters theses roberts (University of Massachusetts Amherst).
- Mohaned Ghazi Abed (2013) *The Knowledge and beliefs Concerning (ADHD) held by children, parents and teachers in Saudi Arabia*, submitted in accordance with the requirements for the degree of Doctor of Philosophy The University of (Leeds school of education).
- inda Wheeler (2007) *Attention deficit hyperactivity disorder (ADHD): identification, assessment, contextual and curricular variability in boys at(KS1) and (KS2) in mainstream schools*. thesis submitted in fulfillment of the requirements of Coventry University for the degree of Doctor of Philosophy University of Worcester.
12. -Susan Robin (1997) *Preservice teachers' knowledge and opinions oncerning students with attention deficit hyperactivity disorder (ADHD)*. Thesis Submitted to the Faculty of (Graduate studies and research in partial fulfillment of the requirements For the degree of master of education in

educational psychology (University of Regina).

13. -Deborah K. Taylor (1999) *Impact of attention deficit hyperactivity disorder (ADHD) on parents and children: what are the lived experiences of a parents with a child with (ADHD)?*
14. Kimberly Blair Saliba (2014), *Attention and (ADHD): measurement and medication*. thesis submitted in conformity with the requirements for the degree of doctor of philosophy graduate department of applied psychology and human development ontario institute for studies in education (university of Toronto).
15. -Erich Sack (2016) *Increasing attentiveness in students with (ADHD)*. thesis submitted to the Faculty of Social and Applied Sciences in partial fulfillment of the requirements for the Degree of Master of Arts Learning and Technology Royal Roads University Victoria, British Columbia, Canada.