

effect of sports practice in reducing hyperactivity in deaf children (12-18 years)

تأثير الممارسة الرياضية في التقليل من فرط الحركة لدى أطفال الصم البكم (12-18 سنة).

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**Abstract** ; The present study aimed to try to identify the extent of the effect of sports practice in reducing hyperactivity in dumb deaf children. In this study, the researchers relied on a descriptive approach. The study sample also included 25 deaf children who were deaf from the age group (12-18 years) of both sexes. They belong to the pedagogical centers in the state of M'sila. They were divided into two groups, the first group is practicing sports made up of 13 children, while the second group is not practicing sports made up of 13 children. As a tool for the study, the researchers relied on building a questionnaire based on previous studies. Among the most important findings is that exercise has a positive effect in reducing hyperactivity and hyperactivity in dumb deaf children.

**Keywords:** Sports practice / hyperactivity / deaf children.

**المخلص:** هدفت الدراسة الحالية إلى محاولة التعرف على مدى تأثير الممارسة الرياضية في التقليل من فرط الحركة لدى أطفال الصم البكم. واعتمد الباحثون على المنهج الوصفي. كما اشتملت عينة الدراسة على 25 طفل صم بكم من فئة عمرية (12-18 سنة) من كلا الجنسين ينتمون إلى المراكز البيداغوجية بولاية المسيلة. حيث قسموا إلى مجموعتين: المجموعة الأولى ممارسين للرياضة مكونة من 13 طفلاً، أما المجموعة الثانية غير ممارسة للرياضة مكونة من 13 طفلاً. وكأداة للدراسة اعتمد الباحثون على بناء استبيان بناء على الدراسات السابقة. ومن بين أهم النتائج المتوصل إليها أنه للممارسة الرياضية تأثير إيجابي في التقليل من فرط الحركة والنشاط الزائد لدى أطفال الصم البكم. -الكلمات المفتاحية: الممارسة الرياضية/ فرط الحركة/ الصم بكم.

### 1-Introduction and problem of study:

The problem of disability is humanitarian and social in most societies, and the volume of attention to this problem increases, especially in developed societies, where the care of the disabled is considered to be an effective productive capacity that contributes to the benefit of society, and thus contributes to reducing the burden of the family of the disabled, and proof of That is, if we force an extrapolation of history, if we find that disability does not prevent spore in many areas, and the human history is full of many cases that have achieved great victories and are disabled and the inability to reach the level of the spore, likes of Taha Hussein, Madame Koury, Abu Al-Ala Al-Maari, Helen Clero, and others. (Osama Riyad, Nahid Ahmed Abdul Rahim, 2001, p. 45)

Deaf children are considered to be among the categories with sensory disabilities that fall into the categories of people with special needs. Some of those interested in special education have indicated that people with hearing disabilities benefit most from training and sports programs because they have significant social skills and have a 50-70 percent IQ that makes them able to learn. (Arab Childhood Magazine, 2002, p. 3)

Also do not forget that this segment is more vulnerable to problems and behavioral disorders, the most important of which is hyperactivity ' as the number of people infected with it is about 05% percent of the people of the world where the child is unable to follow orders and control his actions or finds it very difficult to pay attention to the laws and so he is in a state of distraction In small things, people with this condition have difficulty integrating and collecting.' (Rukia Azaq p01)

It is observed that ADHD in 3 to 9% of children and adolescents through American research, three times more common in males than in females; in 3 to

5% of adults with equal proportions between males and females is observed if the diagnostic criteria based on the diagnosis of the American Psychiatric Association. (Donald E and all; 2007,03) The national institutes of health said in 2000 that spending on the disorder ranged from \$3.5 billion to \$4 billion annually. (Marie Foley and all 2008.02), and These are very high health costs (Horowitz) explained that a child with ADHD has no patience, is disorganized and impulsive, always active, or very annoying, or disturbing others in any other way in their daily activities. It can be difficult to understand that a child is not behaving in this way on purpose but simply is unable to act in any other way. (Horowitz 2007, 23)

It is important to note that distraction, attention deficit, as well as an excess activity do not have to be present with the child at all times, often when a child with ADHD receives special care and individual attention can adjust itself for a good period. (Paul H 2017.24)

Today, researchers tend to say that ADHD is due to genetic factors that cause decomposition of the frontal lobe of the brain (.2002.08 Éric), while some researchers believe that the cause of hyperactivity and attention is the lack of regulation of certain neurotransmitters in the brain making it difficult for anyone Sort or organize some internal and external alarms. These inputs in neurochemistry in the brain make it difficult to concentrate. Many neurotransmitters, including dopamine and norepinephrine, may affect the production, use, and regulation of other neurotransmitters, as well as the functioning of some brain structures. These problems related to the organization of certain functions in the brain appear to be central to the frontal lobe, making it difficult for a hypermobility patient to control the input of other parts of the brain. The front alvegal region of the brain, just behind the front, is said to control the 'executive functions' of our behavior. Executive function is

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responsible for memory, organization, inhibition of behavior, maintaining attention, starting self-control and planning for the future. Without enough dopamine and related neurotransmitters, the frontal lobe is reduced and is unable to perform its complex functions effectively. (Grant L.2013;02).

And it reached (katri and all 1992) that one of the main causes of hyperactivity accompanied by distraction is due to the characteristics of the behavioral relationship between the mother and the child and the hostile practices of raising mothers and adopting a strict disciplinary method. In a study conducted by (Marie Foley 2008) and his colleagues, the study of which was the study of the experimental and theoretical differences and similarities of the child, the results showed that the symptoms of ADHD are closely related to the child's mood.

Moreover, many studies have linked hyperactivity and distraction to impaired motor skills and cardiovascular impairment compared to habit, and poor motor skills can put children suffering from hyperactivity and attention deficit swell to the risk of developing the concept of self. Weak, high levels of anxiety, and poor social function. (Chien-Yu Pan and all 2019.01)

Sports practice is one of the basic means of building the personality of a child who is normal and integrated from all sides. Which can be used as an alternative new strategy to manage the symptoms of hyperactivity and distraction is an innovative and exciting method. (Gordon.j and chang.j) has pointed out that vigorous and positive exercise improves the way the brain and bodywork on the contrary, inactivity, and inactivity, in the form of watching TV and playing computer games, has very negative effects on brain chemistry and fitness, especially hypermobility. and distraction. (Gordon, Jay 2008,13).

(Chien-Yu Pan and all 2019) concluded that the practice of physical and sports exercises improves behavioral and cognitive results by increasing

neurotransmitters such as dopamine and serotonin, it promotes brain health in ways that can complement other therapeutic methods in the treatment of hyperactivity and attention deficit.

(Mahdi 2014) showed that combat sports play a positive role in reducing the intensity of impulsiveness and reducing the severity of hyperactivity and attention deficit and this by being a combat art characterized by its practitioners acumen and always prepared to face the danger, and also works to expand the effort and improve speed and effectiveness in the development of Tactical thought. (Mehdi 2014.07)

Given the characteristics of practice such as flexibility in performance and ease in modifying activities and laws, it is considered best suited to build the personality of the individual from all sides and to refute all disturbances and others that he tries to disturb. This prompted the researchers to try to close the deficit gap by adding the element of exercise to treat the imbalance and reduce this phenomenon naturally.

Therefore, the researchers in this study discussed the extent to which exercise affects reducing hyperactivity in deaf children. **By asking the following question:** does exercise affect reducing hyperactivity in deaf children?

### **Partial Questions:**

1. Are there statistically significant differences between deaf children who are practitioners and non- practitioners' sports in the axis of attention deficit?
2. Are there statistically significant differences between deaf children who are practitioners and non- practitioners sports in the axis of Impulsivity?
3. Are there statistically significant differences between deaf children who are practitioners and non-sports practitioners in the axis of Hyperactivity?

### **3- Study hypotheses:**

#### **3-1- general hypothesis:**

Exercise has an effect in reducing hyperactivity in deaf children.

#### **3-2- Partial hypotheses:**

1. There are statistically significant differences between deaf children who are practitioners and non- practitioners' sports in the axis of attention deficit.
2. There are statistically significant differences between deaf children who are practitioners and non- practitioners' sports in the axis of Impulsivity.
3. There are statistically significant differences between deaf children who are practitioners and non-sports practitioners in the axis of Hyperactivity.

#### **4- Objectives of the study:**

1. Find out how sports practice affects reducing behavioral disorders.
2. Reveal the most important differences between the members of the sample.
3. Enhance the role of exercise in the treatment of behavioral disorders.

#### **5- The importance of the study:**

1. Find out the most important classifications of hypermobility and the extent to which it affects the personality of deaf children.
2. Try to find out the most important appropriate strategies for treating this disorder.
3. Try to highlight the importance of exercise in modifying the abnormal and unstable behavior of a child with hypermobility.

#### **6- Defining the terms of the study:**

##### **6-1- definitions of sports practice:**

**-idiomatic definition:** sports practice is one of the finest forms, and one of the trends in human sporting culture, which is the most organized and the most skilled of other forms. (Amin Anwar El-Khouly, 1996 32)

**-Procedural definition:** is an integral part of general education and an experimental field, aiming at the formation of the individual in terms of physical, mental, emotional and social, through the types of physical activity.

### **6-2- Definitions of hyperactivity:**

**-Conventional definition:** is a difficulty in focusing and staying on the task, accompanied by an unpurposeful overload that is not suitable for the situation or task and causes inconvenience to others and the diagnostic standard of this disorder includes the following:

- lack of attention. Impulsive or reckless. Excess activity. (Shawky 2009,24)

**The Fourth Statistical and Diagnostic Manual of Mental Illness issued by the American Association of Psychologists (DSM IV 2004)** It is defined as a developmental disorder that appears during childhood and in many cases before seven years and is described as inappropriate developmental levels on the visual and auditory side and behavior of hyperactivity and impulsiveness. (Noura 2016, 03)

**-The procedural definition:** is one of the behavioral disorders affecting children, limiting their ability to pay attention and focus on completing the duties offered to them, as well as the inability to control their behavior.

### **6-3- Definitions of deaf children:**

**-The idiomatic definition:** 'Lowid' said that hearing impairment means a deviation in hearing that limits one's ability to communicate auditory and hearing impairment is the result of the severity of hearing impairment and its interaction with other factors such as age at hearing loss and age when hearing is detected and treated. (Jamal Al-Khatib, 1998, p. 25).

**Deaf people are defined** as individuals who have completely lost their sense of hearing before they are born or before they acquire a language. (Yassin, p. 05)

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**Belkacem** shows that young deaf people suffer from hearing impairment and inability to communicate verbally, which limits their ability and negatively affects their development and performance in various aspects of life. (Belkacem, 2019, p. 08)

**-The procedural definition:** a deaf child is a child who has a total or partial loss of hearing, which hinders him from learning the language and communicating with his or her regular peers.

#### **7- Previous and similar studies:**

**7-1- Mohammed Wzzani, Qamrawi Mohammed 2017:** 'Exercise within the school environment and reduce attention deficit hyperactivity disorder' where the problem of the study focused on knowing the impact of exercise inside and outside the school environment in reducing attention deficit hyperactivity disorder Primary school pupils. The researchers relied on the experimental method, and the sample of the study was divided into experimental and controlled, and the experimental sample consisted of 10 students suffering from the disorder but exercising outside the school environment, as for the control sample, it included 15 students. The Conners scale was also applied to teachers and parents of students suffering from this disorder. Among the most important results reached by it is that there is an effect in reducing attention deficit hyperactivity disorder by exercising.

**7-2- Chawky Mamadi 2012:** "The extent of primary school teachers' knowledge of attention deficit disorder accompanied by hyperactivity", where the problem of the study revolves around the extent of primary school teachers' knowledge of attention deficit disorder accompanied by hyperactivity. The researcher designed the study questionnaire based on the previous studies and some measurements that identified the subject of this study. As for the study, the study was chosen in a simple random way from among the teachers who are studying in the



elementary stage in the Tougorit region. The number of sample individuals reached 450 teachers. Among the most important results reached is that the level of primary school teachers' knowledge of attention deficit disorder accompanied by hyperactivity is moderate, at either the dimensional or the total degree level. :

**7-3- Bazi Radwan, Kunduz Nadir 2018:** "The effectiveness of a proposed educational program with educational games in reducing motor hyperactivity and distraction of attention among students" where the researchers wanted to know the effectiveness of a proposed educational program with educational games in reducing hyperactivity and distraction among primary school students, represented by The sample of the research was in 08 students, they are studying at the -martyr Si Chikhi school-. In this study, the researchers used an educational program with educational games and the Conners measure of hyperactivity. The results revealed the existence of the effectiveness of the proposed program in reducing hyperactivity and distraction.

**7-4- Sehahi Mahdi 2014:** "The role of combat sports in developing the motor performance of the group of children with attention deficit disorder accompanied by hyperkinetic activity". The research problem has focused on the extent to which combat sports can be adopted, and one of the positive factors in modifying the behavior of a child with deficiency the researchers relied on the descriptive approach. The research sample was a deliberate sample of 24 pupils in the age group (5-12 years). The study tool was a test of attention deficit hyperactivity disorder prepared by Muhammad al-Nubian Muhammad Ali. The results of the study have found that combat sports have an impact on reducing attention deficit hyperactivity and attention deficits.

**7-5-Noura Amer 2016:** 'A diagnostic study of the disorder of hyperactivity associated with reducing attention and its relationship to the skill of learning in the student'. The study aimed to try to highlight one of the behavioral disorders

affecting children, namely, attention deficit hyperactivity disorder and its impact on learning skills. The study was conducted on a group of 25 primary school students in fourth-grade males and females students. In Elementary school, Shawsh Saleh and Sahraoui Belkacem in the District of Ain Azal, Sitif province. The approach is descriptive and analytical. As a study tool, the researcher used two measures to assess the behavior of hyperactivity and reduce pupil attention, one addressed to the teacher and another to the parents of the students. The results of the study have revealed an effect of the associated hyperactivity disorder to reduce attention to learning skills.

**7-6- Zakour Mohamed Mufida, Abdel Fattah 2015** 'Appreciation of primary school teachers for the prevalence of hyperactivity disorder of their pupils'. The study aimed to reveal the prevalence of ADHD and the nature of gender differences through primary schools in The City of Wargla and to find out this a list of observations of the behavior of children was designed included (19) paragraphs distributed in two dimensions. The results of the study revealed a higher prevalence of ADHD in males than in females.

#### **Foreign Studies:**

**7-7- Linder Kamet and Iauth 1998** 'Behavior Regulation Program for The Treatment of Children With Hyperactivity and Attention Deficit' The study aimed to know the degree of correlation between the two variables of the study diligently the study sample included 18 school-age children with hyperactivity disorder and deficiency Attention and the researchers applied for the behavior modification program and then applied a questionnaire to collect information about these programs and their practical practices. The study resulted in children complying with obedience, order, and activities provided to them.

**7-8- Baiagul and al 1990** 'training program to regulate the chaotic behavior associated with hyperactivity disorder and hypermobility' aimed at trying to

identify the effectiveness of the training program to regulate chaotic behavior using response correction, play and enhancement methods the study has been conducted on some clinical cases of male schoolchildren. The researchers have done several sessions with members of the sample. One of the most important findings of the study was the effectiveness of the program in modifying chaotic behavior and improving academic performance.

**7-9- Sandra and Suzanne Phillips 1995** 'Evolutionary conflicts of families in dealing with the child who is hyperactive' where the study aimed to try to highlight the difficulties that families and their children may face at every stage of development so that this study provides Perspective for evaluation and interventions by nurses who interact with children with ADHD and their families at home, school and health services preparation. The study has found that appropriate assessment and interventions are the possibilities for promoting success.

**7-10- Chien-Yu Pan and all, 2019** 'The Effects of Physical Exercise on Motor Skills and Executive Functions in Children with ADHD Experimental Study' examined the impact of a 12-week table tennis exercise on motor skills Executive functions in children with ADHD. Where the researchers relied on a sample of 30 children divided into an experimental group consisting of 15 children and another control group of 15 children, the test of the overall growth of movements was performed before and after the intervention, and the results of the training group were much higher than the control group in the motor side and things control skills, The researchers found that table tennis for 12 weeks was of clinical importance in motor skills and executive functions for children with ADHD.

## The practical chapter:

### Survey study:

As with any study, it is necessary to go through certain procedures in order to control and become more familiar with its aspects, thus achieving a sound way to the desired goal of this study. The study conducted by the researcher aims to:

- Learn about the study community and how to select it in the light of the relevance of the subject of the study.
- Collect the information necessary for the study.
- Ensure that the search tool is valid.
- Some items could be modified and reformulated.
- Detecting difficulties that we may encounter, and thus trying to control and overcome them during implementation

**1-Study Approach:** In conducting the study, the researchers relied on the descriptive approach because it was appropriate to the nature of the study.

Descriptive research includes collecting data in order to examine theories or answer questions related to the current state of the groups studied. (Monther: 133,2007)

**2-Study community and sample:** The original community of the study sample is represented by the group of deaf children (students) from the state of M'sila and distributors on pedagogical centers as well as those integrated in educational institutions. There are 134 children. The sample of the study included 26 deaf children between the ages of 12 and 18 of both sexes (male and female) who were randomly selected and focused on representing the whole indigenous community as much as possible. They were divided into two groups, the first group of sports practitioners consisting of 13 children, and the second group was a non-practicing sport, with 13 children.

Table (01) represents the distribution of the sample according to the variables of the study

Gender Sex	Sport practice		Total
	Practitioner	Non-Practitioner	
male	09	09	18
Female	04	04	08
Total	13	13	26

Source: from the researcher preparation by relying on the outputs of spss

### 3- The research tool:

A questionnaire was designed to guide deaf educators to answer them and try to evaluate the behavior of the child based on the Connors scale of attention deficit and hyperactivity, as well as on the Algerian version of the scale of self-report of hyperactivity disorder and lack of attention of adults, prepared by Rashid Ziad and Ahmed Zain. In addition to what was mentioned in previous studies. The final form of the questionnaire was as follows:

Table (02) show the axes of the questionnaire

The Axes	Number of Phrases
attention deficit	10 phrases
Impulsivity	10 phrases
Hyperactivity	10 phrases

And answer the items of the previous dimensions (axes) according to five-step Likert according to the following as:

fully applicable =5 / applies =4 / sometimes= 3 / not applicable= 2 / not fully applicable= 1.

### 4- Psychometric properties of the tool:

**4-1- Stability of tool:** mean that the scores obtained are accurate and error-free, that means. if the tool is reapplied to the same individual any number of times,

we get the same results. The instrument's stability was 0.83 when the Alpha Cronbach test was applied.

**4-2-The honesty of the tool:** to confirm the honesty of the tool follows the researcher more than one way to legalize the coefficient of honesty which is as follows:

**4-3- Virtual honesty:** indicates that this type of honesty indicates whether the questionnaire looks as if it measures or does not measure what it was set for and this type of honesty indicates the overall appearance of the questionnaire as a means of measurement.

**4-4-Self-honesty:** is means by the internal honesty of the test, which is an experimental test score attributed to real grades free of measurement errors. It is measured by calculating the square root of the tool's (Alpha Cronbach) coefficient. (Mohammed Nasreddine Radwan 2006, 177).

Since the instrument's stability factor is equal to 0.83, the self-honesty factor is as follows the self-corrective coefficient of the square root of the stability factor. And from it, self-honesty is 0.91.

**Table (03) shows the Psychometric characteristics of the study tool**

Psychometric characteristics	Self-honesty coefficient	Stability of tool
questionnaire	0.91	0.83

**Source:** from the researcher preparation by relying on the outputs of spss

### **5-Statistical methods used in the study:**

We unloaded and analyzed the questionnaire through the Statistical Analysis Program (SPSS V.22), known as the Social Science Statistical Package Program, where we used the following statistical tools:

**test Alpha Cronbach:** to determine the stability of the questionnaire paragraphs.

**The Arithmetic mean:** which is the average set of values, or the sum of the values studied divided by their number, to identify the average responses of the respondents to the questionnaire.

**Standard deviation:** to determine the extent to which the responses of the study members deviated.

**Test Smirnov Kolmogorov:** to see if the data follows the normal distribution or not. –

**'T' test:** to study the differences between two independent samples of the study variables.

**Pearson's correlation coefficient:** to know the relationship between the independent and the dependent variable.

**Simple regression:** to see the impact of the independent variable on the dependent variable.

**6- View, discuss and analyses the results**

**6-1- To test the validity of the current study hypotheses,** we conducted a natural distribution test 'test de normality-Kolmogorov-Smirnov' to see if the data follow the normal distribution or not intending to determine the type of statistical methods, whether parametric or non-parametric. The following table makes this clear.

Axes of the scale	Number of the sample	Practice of sport	Degree of freedom	Test K-S	Significance level	SIG value
All axes of scale	12	Practice	23	1.13	0.05	0.151
	13	not practice				

**Table (04) shows the normal distribution test 'K-S' data.**

**Source:** Prepared by the researcher based on spss output significant at 5% level  
 Based on the results obtained from the previous table, we note that the value of Smirnov Kolmogorov 'KS' was estimated at (1.13) at the significance level (0.05),

and the value of 'SIG' (0.15), which is lower than the level Indication 0.05 Therefore, the data do follow the normal distribution so the tests to be used in the study are parametric tests.

**6-2- To test the validity of the general hypothesis** that Exercise has an effect in reducing hyperactivity in deaf children. We have applied the following statistical methods:

- a- Pearson correlation coefficient test to see the relationship between the independent variable 'sports practice' and the dependent variable 'hyperactivity' and the following table illustrates it:

**Table (05) shows the relationship between the independent variable and the dependent variable of the study.**

Variable	Hyperactivity
Sports practice	<b>0.42</b>
SIG value	<b>0.03</b>

**Source:** Prepared by the researcher based on spss output significant at 5% level

From table 05, we note that the value of R= 0.42 and the value of sig is 0.03, which is less than 0.05, that means. we indicate that there is a statistically significant correlation between sports practice and reducing the level of hyperactivity at a significant level of 5%, with a strength of 0.42, which is a medium correlation.

After verifying the validity of the relationship between the independent variable, sports practice and the dependent variable of hyperactivity, we used a simple regression to detect the impact and direction of the relationship between the two variables, and Table 06 illustrates this.



Table (06) illustrates the simple regression model between sports practice and hyperactivity.

Variable	regression coefficient	Static significance level
Constant (c)	120.6	0.03
sports practice (X1)	9.68	0.03
Value 0.17 R2 for model / statistical significance value for F 4.96		

**Source:** Prepared by the researcher based on spss output significant at 5% level

As shown in table (06), we note that the coefficient of determination (0.17= R2) shows that the independent variable (sport practice) explains the dependent variable (hyperactivity) by 17%, the remaining percentage is attributed to other variables, and that the statistical significance of (F is 0.03) less than 0.05 explains the validity of the simple regression model. The statistically significant value of the independent variable sports practice (X1) is 9.86 and It has a statistical significance level of 0.03 is less than 0.05. That is, it is statistically significant.

The data of Table (06) can then be translated into a simple regression equation as shown below:

$$Y_1 = 120.6 + 9.68X_1$$

Y1: represents the dependent variable (hyperactivity).

X1: represents the independent variable (sports practice).

120.6: represent the constant number.

9.68: represents the regression coefficient of the first independent variable.

From the equation, we note that the regression coefficient for the first independent variable (sports practice) is 9.68 and has a statistical significance level of 0.03 which is less than 0.05, that means. if the first independent variable changes in one unit it will change the first dependent variable by 9.68 units, This shows that the more physical activity is exercised and more sports practice, the

less of hyperactivity in deaf children, and therefore there is a positive effect between exercise and the reduction of hyperactivity in deaf children.

**Testing the validity of partial hypotheses:**

**6-3- To test the validity of the first partial hypothesis** that There are statistically significant differences between deaf children who are practitioners and non- practitioners’ sports in the axis of attention deficit. The researchers relied on the test 'Test T ' and the following table illustrates this:

**Table (07) shows the (test T) to test the validity of the first hypothesis.**

Questionnaire axis	Sports practice	Number of sample	means	Standard deviation	Value T test	Level of significance	Value of sig
The first axis of: attention deficit	practice	12	36	5.75	0.76	0.05	0.45
	not practice	13	34.38	4.77			

**Source:** Prepared by the researcher based on spss output significant at 5% level

From the results reached and the results recorded in the previous table, we note that the arithmetic average of the study sample members practicing sports in the axis of deficit attention was '36' and the standard deviation was estimated at '5.75'. For the study sample members who were not practicing sports in the same dimension. The arithmetic average is 34.38. A standard deviation of 4.77 while the value of the 'T' test at 0.76 at the indicative level was 0.05 and the value of the sig has reached 0.45. Since the value of sig is bigger than the significance level 0,05 from here, the alternative hypothesis is rejected and the null hypothesis is accepted, meaning that there are no statistically significant differences between practitioners and non-practitioners in the axis of deficit attention in deaf children.

**6-4- To test the validity of the second partial hypothesis** There are statistically significant differences between deaf children who are practitioners

and non- practitioners' sports in the axis of impulsivity. The researchers relied on the test 'Test T ' and the following table illustrates this:

**Table (08) shows the (test T) to test the validity of the second hypothesis.**

Questionnaire axis	Sports practice	Number of sample	means	Standard deviation	Value of T test	Level of significance	Value of sig
The second axis : impulsivity	practice	12	37.25	6.22	1.34	0.05	0.19
	not practice	13	34.30	4.67			

**Source:** Prepared by the researcher based on spss output significant at 5% level

From the results reached and the results recorded in the previous table, we note that the arithmetic average of the study sample members practicing sports in the axis of impulsivity was '37.25' and the standard deviation was estimated at '6.22'. For the study sample members who were not practicing sports on the same axis. The arithmetic average is 34.30. A standard deviation of 4.67 while the value of the 'T' test at 1.34 at the indicative level was 0.05 and the value of the sig has reached 0.19. Since the value of sig is bigger than the significance level 0,05 from here, the alternative hypothesis is rejected and the null hypothesis is accepted, meaning that there are no statistically significant differences between practitioners and non-practitioners in the axis of impulsivity in deaf children.

**6-5- To test the validity of the third partial hypothesis** There are statistically significant differences between deaf children who are practitioners and non-practitioners' sports in the axis of hyperactivity. The researchers relied on the test 'Test T ' and the following table illustrates this:

**Table (09) shows the (test T) to test the validity of the second hypothesis.**

questionnaire axes	practice of sport	individuals the sample	Mean	Standard deviation	Value T-test	level of signification	sig value
The third axis hyperactivity	practice	12	37.66	3.44	2.48	0.05	0.02
	not practice	13	32.53	6.52			

**Source:** Prepared by the researcher based on spss output significant at 5% level

From the results obtained and the results recorded in the previous table, we note that the arithmetic average of the study sample members practicing sports in the axis of hyperactivity was '37.66' and the standard deviation was estimated at '3.44'. For the study sample members who were not practicing sports on the same axis. The arithmetic average is 32.53. A standard deviation of 6.52 while the value of the 'T' test at 2.48 at the indicative level was 0.05 and the value of the sig has reached 0.02. Since the value of sig is less than the significance level 0,05 from here, the alternative hypothesis is accepted and the null hypothesis is rejected, meaning that there are statistically significant differences between practitioners and non-practitioners in the axis of hyperactivity in deaf children.

**Discuss the results:**

It is clear from previous tables that there is a difference between the average scores of tests applied to the study sample in favour of the sports practice category in all areas of questionnaire as well as in the area of excess activity, which indicates positive factors for exercise in modifying the behavior of the child with hearing impairment and reduction From his excess activity and this is confirmed by both radwan study (2018) Which acknowledged that the educational programs proposed with educational games have a positive effect in reducing hyperactivity and distraction. As well as the study of Sehsahi 2014 also showed that there were statistically significant differences in favor of

practitioners in items after motor activity through the family and school image. That is, combat sports play a positive role in alleviating excessive activity, by reducing physical and psychological effort, and transforming combat skills into positive behavioral habits. In addition to the study of wazzani 2017, which revealed a very strong correlation between exercise within the school setting and the reduction of attention deficit hyperactivity disorder in primary school students, the study of Chien-Yu Pan and all,2019 highlighted the positive effect of exercise (tennis Table) on the executive and motor functions of a child with hyperactivity and adhd. The current study also agreed with the study designed and supervised by Michael S. Wendt at New York University in Buffalo, which revealed a marked improvement in the behavior of children with hyperactivity after exercising regularly. These changes appeared two to four weeks after exercising. Mild for forty minutes, five days a week, The results of the current study, which showed the absence of statistically significant differences between children with hearing impairment practitioners and non-practitioners of sports, differed with previous studies in both the field of attention impairment as well as the field of impulsiveness, which the researcher attributes to the possibility of owning an educator or supervisor of these The category has the ability to control and mitigate these symptoms by using certain techniques that will attract the attention of children with hearing disabilities and control their unwanted behaviors. Or its use of behavior modification strategies, such as rewarding, promoting and praising, is a commendation technique, which is a child's appreciation of what he does sincerely and positively adapted to the specific needs of this group, which enabled him to fight the symptoms of attention deficit and impulsiveness and reduce their behavior. Bad. Or this is due to the difference in the sample of the current study, which included a group of people

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with special needs (deaf children) and a sample of previous studies conducted on normal children

**Results:**

- 1- Sports practice has an effect in reducing hyperactivity in deaf children.
- 2- There are no statistically significant differences between deaf children who are practitioners and non- practitioners' sports in the axis of attention
- 3-There are no statistically significant differences between deaf children who are practitioners and non- practitioners' sports in the axis of impulsivity
- 4-There are statistically significant differences between deaf children who are practitioners and non- practitioners' sports in the axis of hyperactivity

**Conclusion:**

The current study shows through data from the presentation, analysis, and discussion of the findings that exercise has a positive and effective effect in reducing hyperactivity and reducing excess activity in deaf children (12-18 years) and these results have been in line with the findings of some previous research and studies have shown the importance and impact of exercise in reducing excess activity in deaf children. In addition to mind control, attention stabilization, development of reception and commitment skills, and a range of positive and utilitarian habits and behaviors. In addition to hyperactivity disorder and distraction in children and adolescents, whether they are normal or with special needs, it is a frequent occurrence syndrome that is often accompanied by a joint disorder in the degree of attention and impulsivity and an increase in activity. Therefore, the parish must be multi-dimensional, taking into account each position and the priority of appropriate measures. Sports practice is one of the very important options that have its advantages and limitations in managing

ADHD and it is a safety valve to curb excess energy in the child and One of the best ways to direct this energy.

**Recommendations and suggestions:**

1. Provide opportunities for deaf children to practice physical and sports activities of all kinds.
2. Developing adapted programs by specialists in line with the needs and requirements of this category (deaf children).
3. Providing pedagogical methods related to sports activity within pedagogical centers.
4. Conducting similar studies on different groups of people with special needs.
5. Educating the families of deaf children about the importance of sports practice.
6. Carry out sensitization sessions on the overall behavioral disorders that children with hearing impairments suffer from, and explain the role of sports practice in reducing and reducing it.

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