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The efficacy of sports programs in improving social communication among children with hearing impairments

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Abstract:

Through this study, we aim to know the effectiveness of directed sports programs in enhancing social communication among children with hearing disabilities (09-12 years old). This study concluded that the nature of the sports environment (facilities-equipment-guidance) impacts the interaction of children with hearing disabilities aged (09-12). There are also differences between children with hearing disabilities (09-12 years old) who participate in sports programs and those who do not.

Keywords: Sports programs; Social communication; Children; Hearing impairment

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1. INTRODUCTION

Sports activities effectively achieve social communication and enhance human relations, especially among children with hearing disabilities who face challenges in interacting with their surroundings. Social communication is an essential skill in forming character and building self-confidence. The role of directed sports programs is to enhance this skill by providing an interactive and supportive environment.

Sports programs directed at children with hearing disabilities contribute to developing their physical and social abilities, as they help them overcome language barriers that may hinder their communication. Through these activities, children can interact with their peers and learn values such as cooperation, sportsmanship, and mutual respect. They also allow them to develop their identity and enhance their sense of belonging.

This event aims to highlight the importance of sports activities as educational and social means of enhancing life skills for children with hearing disabilities, with a focus on the age group (9-12 years), which constitutes an important stage in character formation and skill development.

2. Presentation of the exploratory study

2.1 The issue:

Sports are a comprehensive educational means that contributes to achieving social, psychological, and physical goals. They are particularly important for children with hearing disabilities. In light of the challenges facing these children in building effective communication with their surroundings, sports programs appear as an effective tool to enhance their social and communication skills, especially in the age group (9-12 years), which constitutes an important stage in psychological and social development.

Through sports programs, children with hearing disabilities can overcome barriers that hinder their interaction with their peers, as activities provide a supportive environment that encourages cooperation and non-verbal interaction, which enhances their sense of confidence and belonging. These programs also teach positive values such as cooperation, respect for others, and teamwork, which positively reflects on the quality of their social life.

- **Starting question:**



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How effective are targeted sports programs in improving social communication skills in children with hearing disabilities (09-12)?

- **Sub-questions:**

- Does the nature of the sports environment (facilities, equipment, and guidance) affect the interaction of children with hearing disabilities (09-12 years)?
- Are there noticeable differences between children with hearing disabilities (09-12) who participate in sports programs and those who do not?

2.2 Study hypotheses:

- The nature of the sports environment (facilities, equipment, and guidance) affects the interaction of children with hearing disabilities (09-12 years).
- Significant differences exist between children with hearing impairment (09-12) who participate in sports programs and those who do not.

2.3 Study objectives

- ✓ Identify the effectiveness of targeted sports programs in enhancing social communication among children with hearing impairment in the age group (9-12 years).
- ✓ Determine the impact of sports activities on developing non-verbal communication skills among children with hearing impairment.
- ✓ Analyze the role of sports programs in improving social interaction between children with hearing impairment and their peers.
- ✓ Explore the type of sports activities that most effectively enhance social communication for this group.
- ✓ Study the impact of the sports environment, including coaches and facilities, on the effectiveness of social communication among children.
- ✓ Develop strategies to activate the role of sports to enhance the social integration of this group in society.

3. Theoretical Background of the Study

3.1 Defining the effectiveness of sports programs:

Effectiveness refers to the program's ability to bring about the desired change among participants. In the context of sports activities, this means achieving a tangible improvement in physical fitness, mental health, or social skills. (Saleh, 2020, pp. 30-45)

3.2 Social Communication:

Social communication is an interaction process between individuals that aims to exchange ideas, information, and feelings using verbal and nonverbal means. Social communication includes understanding, cooperating, and building effective relationships in society. (Al-Otaibi, 2020, pp. 45-60)

3.3 Hearing Impairment:

Hearing impairment refers to a partial or complete loss of the ability to hear, which affects communication and interaction with others. Hearing impairment is classified based on the degree of hearing loss into mild, moderate, severe, and profound. (Al-Karim, Hearing Impairment: Concept and Classifications, 2019, pp. 33-50)

3.4 Children:

From a psychological perspective, a child is an individual who goes through stages of cognitive, emotional, and social development, starting from complete dependence on parents or caregivers and ending with gradual independence with age. (Al-Karim, 2020, p. 45)

3.5 The Effectiveness of Sports Programs Targeted at Enhancing Social Communication in Children with Hearing Impairment (9-12 Years):

- **Enhancing Self-Confidence:**

Children with hearing impairments face significant challenges in building self-confidence due to difficulties communicating with their peers. Studies indicate that sports activities enhance children's sense of individual and collective achievement, which increases self-confidence. (Zaid, 2020, p. 58)

- **Developing Social Skills:**

Group sports are ideal for developing cooperation, problem-solving, and conflict-management skills. Children participating in sports programs for people with disabilities significantly improve social interaction. (Al-Rahman, 2018, p. 120)

- **Improving Non-Verbal Communication:**

Non-verbal communication, such as gestures and facial expressions, is essential for children with hearing impairment to interact with others. Sports require this type of communication, which helps children improve its use in different contexts. (Marai, 2019)

- **Breaking social isolation:**

Children with hearing impairments are at risk of social isolation due to language barriers. Research shows that sports help reduce feelings of isolation and



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encourage children to engage with others. (Suleiman, 2021, p. 98)

- **Promoting physical and mental health:**

Sports activities not only improve physical fitness but also reduce stress and psychological pressure, which positively affects the psychological state of children. (Al-Shafei, 2017)

3.6 Advantages of targeted sports programs:

- **Designing appropriate activities:**

Designing activities to suit children's abilities is essential to ensure effective participation. Activities such as ball games and team challenges have shown great effectiveness. (Atta, 2016, p. 33)

- **Using assistive technology:**

Assistive technology, such as innovative applications and communication devices, facilitates participation in sports activities and enhances interaction. (Mahmoud, 2020, p. 101)

- **Training coaches in sign language:**

Having coaches experienced in sign language is essential in ensuring effective and supportive communication with children. (Al-Karim, The Importance of Training Sports Coaches in Sign Language, 2018, p. 76)

- **Parent and community involvement:**

Parental involvement enhances children's commitment and increases opportunities for community interaction. (Al-Sayyad, 2019, p. 155)

3.7 Dimensions of the effectiveness of sports programs

- **Physical improvement:**

Positive effects on physical fitness include improving muscle strength and flexibility and reducing chronic diseases. (Mahmoud, The impact of sports programs on the physical fitness of people with special needs, 2018, p. 72)

- **Psychological support:**

Sports activities enhance the psychological state by reducing stress and depression and increasing happiness and satisfaction. (Maria, 2019, p. 58)

- **Social communication:**

Sports programs improve social skills and interaction with others, especially for children with disabilities, by enhancing cooperation and teamwork. (Sulaiman, The Role of Sports in improving social communication for deaf children, 2021, p. 85)

3.8 Criteria for evaluating the effectiveness of sports programs:

- **Defining goals:**

Goals such as improving physical fitness or enhancing social skills should be clear and measurable. (Atta, 2016)

- **Meeting the needs of the target group:**

Designing the program to suit the capabilities and needs of participants, especially if they have special needs. (Jaber, 2020, p. 110)

- **Measuring results:**

Effectiveness is measured through tangible results, such as improving participants' physical fitness or social skills (Al-Karim, Methods of Measuring the Effectiveness of Sports Activities for Children, 2019, p. 33).

3.8 Factors affecting the effectiveness of sports programs:

- **Good planning:**

Having a clear and comprehensive plan enhances the success of the program. (Zaid, 2020, p. 35)

- **Proper implementation:**

Training trainers and preparing the appropriate environment increases the effectiveness of the program. (Al-Sayyad, 2019, p. 120)

- **Continuous evaluation:**

Monitor progress and make ongoing adjustments to ensure goals are met. (Al-Shafei, 2017, p. 77)

4. Research Methodology and Field Procedures:

4.1 The approach followed:

The descriptive analytical approach was relied upon because it is compatible with such studies. It is defined as: "A method of scientific Analysis and interpretation to reach specific purposes for a specific social situation or problem, or a method of describing and depicting the phenomenon under study quantitatively by collecting standardized information about the problem, classifying it, analyzing it, and subjecting it to a precise study. (Hesham, 2007, p. 73)

4.2 Data collection tools:

To verify the Validity of the hypotheses presented for the study and in response to its nature, we prepared a questionnaire to research the examinee's opinion about the effectiveness of directed sports programs in enhancing social communication among children with hearing disabilities (09-12 years).

4.3 Study community and sample:



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- **Study community:**

The study community in this research represents the parents of children with hearing disabilities (09-12 years).

- **Study sample:**

In order to test the Validity of the proposed hypotheses for the research, a deliberate sample was chosen in terms of number, containing 45 parents.

4.4 Study tools:

- **Questionnaire:**

We will not be able to collect information except through the questionnaire, which is considered a means of collecting Data.

It is defined as: "A tool for collecting information related to the research topic through a specific form containing several questions arranged in a suitable logical manner, which are distributed to specific people to fill out." (Hesham, 2007, p. 112)

4.5 Psychometric properties of the tool:

4.5.1 Validity of the scale: Apparent Validity

To ensure the integrity of the questionnaire construction, we used the Validity of the arbitrators as one of the standard methods. We presented the study tool in its initial form to a group of arbitrators with high experience, knowledge, and expertise in the field of specialization who are scientifically qualified to judge it.

$$\alpha = \frac{R+1}{2R} = 0,84$$

• Calculating the Cronbach's alpha coefficient : (α)

4.5.2 Self-honesty:

The scale's validity coefficient was deduced from the reliability coefficient according to the following equation:

Validity coefficient = root of the reliability coefficient

Validity coefficient is $\sqrt{0,84} = 0,91$

From this, the validity coefficient equals (0.91), which is statistically significant.

4.6 Statistical methods:

After completing the data collection, it was unloaded to analyze and process it statistically using the SPSS program through a set of operations that were relied upon, which are :

Percentages : Frequencies $\times$ 100 / Total number of the sample .

Chi-square test: According to this law, we will try to identify the extent of significant differences in the respondents' answers to the questionnaire questions .

$$\chi^2 = \sum \frac{(f_o - f_e)^2}{f_o}$$

Where:

Standard error degree $\alpha = 0,05$

Degree of freedom $df = n - 1$

5. Presentation, Analysis, and discussion of the study results:

5.1 Presentation, Analysis, and discussion of the tables of the first hypothesis:

Text of the first hypothesis: The nature of the sports environment (facilities - equipment - and guidance) affects the interaction of children with hearing disabilities (09-12 years)

Table No. 1: Represents the statistical methods for the first hypothesis

		Chi-Square	Significance Level	Degrees of Freedom	P-Value	Decision
Second Hypothesis	Sample	60,20	0.05	2	0.00	Function

- **Comment on the results of the first hypothesis:**

From Table (01), which represents the statistical methods used to address the first hypothesis, we observe that the value of the Chi-square statistic is (60.20) and the significance probability value is (0.000) at a significance level of (0.05) and degrees of freedom (02).

When comparing the significance value sig 0.000 with the significance level 0.05, we note that the significance value sig is less than the significance level. Thus, the first hypothesis is statistically significant.

- **Analysis and discussion of the results of the first hypothesis:**

From the questions related to the first hypothesis, we concluded that the nature of the sports environment significantly affects the interaction of children with hearing disabilities. This is due to several factors that contribute to this, such as sports facilities, which are characterized by an inclusive design that can contribute to the comfort of children with hearing disabilities, the use of visual signals or integrated communication systems (such as lights or digital screens)

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helps enhance participation, as well as sports equipment; using equipment that is compatible with the needs of children with hearing disabilities, such as tools that provide visual or vibrating signals instead of sounds, may facilitate interaction and participation in activities.

Additionally, guidance and mentoring play a role; the role of coaches and teachers inappropriately guiding children has a significant impact. Suppose coaches trained to work with children with hearing disabilities, such as using sign language or assistive technology, are provided. In that case, this will increase the children's ability to understand activities and interact better.

5.2 Presentation, Analysis, and discussion of the tables of the second hypothesis:

Text of the second hypothesis: "There are significant differences between children with hearing disabilities (ages 9-12) who participate in sports programs and those who do not."

Table No. 2: Represents the statistical methods related to the second hypothesis

		Chi-Square	Significance Level	Degrees of Freedom	P-Value	Decision
Second Hypothesis	Sample	96,02	0.05	2	0.00	Function

- **Comment on the results of the second hypothesis:**

Through Table No. (02), which represents the statistical methods used in processing the second hypothesis, we notice that the Chi-square value was estimated at (96.02), and the significance probability value was estimated at (0.00) at a significance level of (0.05) and degrees of freedom (02).

When comparing the significance value sig 0.00 with the significance level of 0.05, we observe that the significance value sig is less than the significance level. Thus, the second hypothesis is statistically significant.

- **Analysis and discussion of the second hypothesis:**

Based on the results obtained from the questions related to the second hypothesis, we concluded that there are significant differences between children

with hearing disabilities who participate in sports programs and those who do not participate. This is due to several aspects: social interaction, as participants in sports programs tend to develop better social communication skills, and sports activities provide an interactive environment that helps enhance their relationships with others. Additionally, practicing sports encourages teamwork and cooperation. In contrast, those who do not participate in sports programs may face difficulties in social interaction due to isolation or a lack of opportunities to interact with their peers.

In terms of physical development, participants in sports programs gain noticeable health and physical benefits, such as improved fitness, flexibility, and strength. They are also more capable of coordinating movement and controlling their bodies. At the same time, non-participants may lack opportunities to improve their fitness or acquire motor skills, which negatively affects their physical health.

6. Results and Recommendations

6.1 Results:

Sports programs aimed at children with hearing disabilities in the age group of (9-12 years) are an effective tool for enhancing social communication. They focus on developing physical skills and extend to boosting self-confidence, improving social interaction skills, and instilling educational values such as cooperation and mutual respect.

Additionally, providing a supportive sports environment enables these children to express themselves and overcome communication challenges, enhancing their social integration and helping them build positive relationships with their peers. Therefore, investing in the design and implementation of these programs is an important step towards achieving social justice and ensuring everyone's participation in community activities of all kinds.

The researcher concluded the following:

- ✓ Targeted sports programs directly and practically impact enhancing social communication among children with hearing disabilities.
- ✓ The nature of the sports environment (facilities, equipment, and guidance) affects the interaction of children with hearing disabilities.
- ✓ Significant differences exist between children with hearing disabilities participating in sports programs and those without.
- ✓ Sports activities have a direct impact on non-verbal communication skills as well as social interaction among children with hearing disabilities.
- ✓ Sports activities directly impact the establishment of strategies to activate



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the role of sports to enhance this group's social integration in society.

6.2. Recommendations:

- ✓ Include physical education and sports in the curriculum for children with disabilities.
- ✓ Work on training and updating teachers and those responsible for physical education and sports in centers for deaf and mute children.
- ✓ Work on providing social specialists in centers for children with special needs.
- ✓ Work on integrating individuals with special needs into society.
- ✓ They should work on attracting their peers from the normal population to centers for the care of individuals with special needs and interacting with them.
- ✓ Highlight the importance of sports as an educational and social tool in the lives of children with hearing disabilities.

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