

The role of an adapted motor program for neuromuscular compatibility exercises in developing some social skills among deaf and mute children (12-15) years

Field study at the school for visually impaired children

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1. INTRODUCTION

The success of disabled individuals in acquiring and developing their social skills helps them increase their abilities to establish successful interactive and social relationships and integrate with peer groups and approach adult groups in peace and harmony, which leads to further progress and acquisition of social experiences and achieving social growth in a peaceful and correct manner. The researchers study the factors that help the child to achieve social competence, which social skills are among the most important and most prominent components, and social competence and social skills include multiple components of the ability to verbal, social and emotional expression, the legitimacy of social behavior and the ability to play the role efficiently. Social Communication They view social intelligence as the skill of communicating and consulting with others.

Social skills are of great interest to many researchers as one of the necessary life skills for this group of society. Therefore, various programs have been designed to educate and train these people in various social skills through sports activities, including sports promotional programs, within the limits of what their abilities and capabilities allow. This was confirmed by the researcher Ahmed bin Ali bin Abdullah Al-Humaidhi (2004) in his study, which focused on the effectiveness of a behavioral program for developing some social skills.

Social skills are the ability to communicate and interact with others in a polite and decent manner and in a way that is socially acceptable, and the hearing-impaired child can be trained on them, such as: independence, cooperation, problem-solving, communication and leadership, which are considered among the most important social life skills for this category, and the hearing-impaired child does not acquire these skills. Skills himself, as he needs someone to train him and teach him about social life and its arts.

Mylebst has concluded that deaf children up to the age of fifteen lag behind in social maturity by about 10% of their peers of normal hearing children, and perhaps the most important thing facing a child at this stage is his obtaining a measure of self-help and self-direction. (Badr Al-Din & Al-Sayyid Halawa, 2001, p. 53)

Social skills are considered among the most important skills that a child acquires in the middle and late childhood stages of his life. Pre-school and middle childhood, on the other hand, the loss of these

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social skills is directly related to mental health problems in the later stages of life, and after reviewing a set of sources and references related to this topic and reviewing previous and similar studies that dealt with this category, and through visits From the field to the school of hearing-impaired children and contact with supervisors and specialists, it became clear to us that there is a delay in the social maturity of these children, which affects social skills, and based on our belief in the importance of harmonious activities in developing social skills and based on previous and similar studies that dealt with social skills such as the study of the study of Ahmed bin Ali bin Abdullah Al-Humaidhi and the study of the study of Suha Abbas Abboud, as well as the study of Jokha Muhammad Seli M. Al-Sawfiya, and from it we conducted our study, which represented the role of an adapted motor program for neuromuscular coordination exercises in developing some social skills for deaf-mute children 12-15 years old.

General question:

- To what extent does the adapted kinesthetic program for neuromuscular coordination exercises affect the development of some social skills among deaf-mute children (12-15) years old?

Sub-questions:

- Are there statistically significant differences between the control and experimental groups in the development of communication skills for deaf-mute children (12-15) years old?
- Are there statistically significant differences between the control and experimental groups in the development of support and support skills for deaf-mute children (12-15) years old?
- Are there statistically significant differences between the control and experimental groups in the development of empathy and participation skills among deaf-mute children (12-15) years old?

2. Objectives of the study:

- Examination of the extent to which the adapted motor program for neuromuscular coordination exercises contributes to the development of some social skills among deaf-mute children (12-15) years.
- Examination of the effect of the adapted motor program for neuromuscular coordination exercises in developing communication skills for deaf-mute children 12-15 years old.

- Examination of the effect of the adapted motor program for neuromuscular coordination exercises in developing supportive skills for deaf-mute children 12-15 years old.
- Examination of the effect of the adapted motor program for neuromuscular coordination exercises in developing empathy and participation skills among deaf-mute children 12-15 years.

3. Study hypotheses:

- There is a positive and effective effect of the adapted motor program for neuromuscular coordination exercises in developing some social skills for deaf-mute children (12-15) years old.
- There are statistically significant differences between the control and experimental groups in favor of the experimental group in developing communication skills for deaf-mute children (12-15) years.
- There are statistically significant differences between the control and experimental groups in favor of the experimental group in the development of support and support skills for deaf-mute children (12-15) years.
- There are statistically significant differences between the control and experimental groups in favor of the experimental group in developing empathy and participation skills among deaf-mute children (12-15) years.

4. Importance of the study:

The importance of our study lies in the fact that deaf-mute children are a group of marginalized people with special needs, and the requirements of their lives are not taken into account. That is why the social aspect of deaf-dumb children has been addressed and work to improve and raise the level of social skills for this group of children and get them out of repression, psychological anxiety, denial of disability and the feeling of helplessness that It is imposed by disability and work to introduce the element of excitement and suspense into their daily lives and integrate them into society. This reflects the importance that neuromuscular coordination plays in various movements and the extent of its importance for deaf and dumb children, as well as enriching the cognitive aspect regarding an important group of people with special needs.

5. Fields of Study:

5.1 The human domain:

Our sample included deaf-mute children who are present at the School for Visually Impaired Children in Ben Jarma District in Djelfa.

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5.2 Time domain:

The time period was from 07/01/2019 to 20/04/2019.

5.3. Spatial domain:

School for visually impaired children in Ben Jerma district in Djelfa.

6. Explanation of the concepts and terminology of the study:

6.1 Harmonious exercises:

They are the effective movements that depend on the organized and coordinated work between the nervous and muscular systems. If there is good coordination between the work of the nervous and muscular systems, the movement becomes harmonious, and this is expressed as (neuromuscular coherence), and then the individual feels the ability to perform well. (Abul-Ela , 1997) The use of harmonic exercises requires tools or without tools, and that these exercises have the main purpose of correct and balanced physical and skill development, and for each part of the body there are special exercises that can be tested and varied, and among them what is easy and suitable for beginners. It is a complex and challenging one that is suitable for trainees and intended for the overall development of the body and mind in order to improve the neuromuscular connection. (Al-Samarrai, 1987, p. 102)

These exercises also work on the development of the individual's abilities, both physically and mentally. Physically, they develop the elements of physical fitness such as strength, speed, elongation, flexibility and agility, and at the same time they work on developing mental abilities such as sensation, perception, thinking, perception, innovation and intelligence. (Abdullah, 1983, p. 23)

Procedural definition:

They are specific exercises aimed at developing nervous and muscular compatibility. They are effective movements that depend on the organized and coordinated work between the nervous and muscular systems. If the coordination is good between the work of the nervous and muscular systems, the movement becomes harmonious.

6.2 Neuromuscular compatibility:

Davis defines it as the ability to perform motor tasks characterized by fluidity and accuracy, which affects the joints of the body, and therefore it is related to the movement of the limbs and different body positions. (Abul-Ela , 1997, p. 45)

Compatibility is also defined as the ability to coordinate the movements of different parts of the body when performing comprehensive movements. (Darwish, 1999, p. 163)

Compatibility between multiple parties is defined as the ability to coordinate the movements of a group of limbs when they work together at one time, and the total compatibility of the body is the ability to coordinate between the movements of different parts of the body when performing comprehensive movements. (Abdel-Khaleq, 1999, p. 66)

The compatibility between the eye, the hand and the leg is the most important factor for the player's performance, as during the performance there is a transmission of nerve signals between the nervous and muscular systems. Therefore, all the movements made by the individual, whether they are normal daily movements or movements related to the field of sports performance, require a degree of compatibility between the nervous system and the muscular system. (Al-Sumaidaie et al, 2002, p. 12)

Procedural definition:

Compatibility is the integration of all functional body systems to perform motor duties with accuracy, speed, agility, endurance, high flow and over the period of executing the motor duty. That the individual performs, whether they are normal daily movements or movements related to the field of sports performance, but require a degree of compatibility between the nervous system and the muscular system.

6.3 Social skills:

The definition of social skills differs and varies from one world to another. This difference is due to the performance between scientists and specialists in education and mental health and to the different social situations, and the interaction that occurs in them to achieve the desired goal based on the individual's awareness of the situation he faces, given that the skill is a set of responses Individual performance whose results can be measured in terms of speed, accuracy, mastery, effort and time based on the type of response that requires a certain mental emotional level to help the individual continue social interaction successfully. (Rifai, 1997, p. 4)

Libet and Lewinson defined social skills as "the ability of an individual to produce behaviors that elicit approval and support with others and to avoid behaviors that elicit opposition and punishment."

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Furnham defined it as a series of behaviors that begin with the accurate perception of skill in interpersonal relationships and move towards flexible processing to generate alternative possible responses, evaluate them, and then issue the appropriate alternative. (Faraj, 2003, p. 34)

As for Hope and Mendel, social skills are defined as: the ability to interact safely and effectively with others, and that the socially skilled usually knows what to say and when or when not to say it, and behaves in a way that makes the other feel comfortable. His colleagues, "focusing on the other, paying attention to him, dealing with the situation in an appropriate manner, self-expression and managing interaction, and for "Shali" it is the ability to interact with others in a context in a certain way that is socially acceptable and personally useful at the same time, and takes into account the benefit of others too. (Faraj, 2003, p. 36)

Importance of Social Skills:

Communication, social interaction and the ability to share with others are important and necessary factors for the growth of social relationships in the individual, so the social skills that the individual can employ in his life are one of the important indicators of mental health. Psychological because skills are what qualify him to integrate with others and interact with them in a positive way, and they enable the individual to show his affection to others and enable him to make the effort to help them with the ability to modify behavior in the desired and most influential direction, which leads to affecting others in a positive and beneficial way for the individual. (Sheikh, 1985, p. 50)

Abdel-Sattar Ibrahim and others (1993) indicate that the lack of social skills in the individual is one of the main foundations of psychological disorder, due to its association with many aspects of weak positive social interaction, and the shortcoming in social skills appears in the form of many disorders and problems that play In this shortcoming the main role, such as cases of social anxiety, shyness, inability to express positive emotions such as inability to show feelings of affection and attention, as it shows. (Abdul Sattar et al, 1993, p. 187)

Procedural definition:

It is the individual's ability to act in accordance with behaviors that are pleasing to those around him, attract approval and support with others, form social relationships with those around him, and act in a natural and desirable manner within the limits of society and the customs and traditions associated with his societal origin.

6.4 Hearing impairment:

The term hearing impairment refers to varying levels of hearing impairment ranging from mild hearing impairment to very severe hearing impairment, and (Lloyd) believes that hearing disability means a deviation in hearing that limits the ability to communicate verbally, which becomes necessary to provide special education services and care.. Hearing impairment includes: deafness and hearing impairment. (Al-Esawy, 2010)

Hearing disability means those problems that prevent the individual's hearing system from performing its functions or reduce the individual's ability to hear different sounds. (Violet et al, 2001, p. 21)

Procedural definition:

Hearing disability is a disability centered around the auditory system, which prevents the individual from responding to his acoustic environment so that the person loses the ability to respond to the sound and thus the ability to verbally communicate with others. Between complete hearing loss or partial loss.

7. Previous and similar studies

7.1 Study of Ahmed bin Ali bin Abdullah Al-Humaidhi (2004)

Study Title: The effectiveness of a behavioral program for developing some social skills among a sample of mentally retarded children who are able to learn.

The study aimed to identify the effectiveness of a behavioral program to develop some social skills among a sample of mentally retarded children who are able to learn and who suffer from a lack of social skills in the classroom. Mentally retarded children aged 08-13 years who are able to learn in the education classes attached to Asaad Bin Zaza Primary School in Riyadh, who suffer from a lack of social skills. They were chosen in a deliberate way, and the researcher used a behavioral program prepared by the researcher and a scale for estimating the social skills of mentally retarded children in the classroom in favor of Aaron.

The researcher used the following tools:

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Behavioral program prepared by the researcher.

A measure of social skills assessment of mentally retarded children in the classroom for Haroun

At the end of the study, the researcher reached the following conclusions and recommendations:

There are statistically significant differences in the average ranks of the social skills degrees among the experimental sample after applying the program.

There are no statistically significant differences in the average ranks of the social skills scores among the control sample after applying the program.

There are statistically significant differences between the mean scores of the experimental and control group individuals on the social skills assessment scale after applying the program in favor of the experimental group.

The researcher recommended the necessity of integrating the program into primary school classrooms and working with it

Moreover, the need to pay attention to mentally retarded children from a psychological and social point of view.

7.2 The study of Suha Abbas Abboud (2009):

Study Title:

The effect of a proposed recreational program to develop some social skills for learnable mentally handicapped children.

This study aimed to identify the extent of the impact of the proposed recreational program on some social skills (communication, participation, social etiquette, dealing with money and buying) for mentally handicapped children, the category of "learningable". The research community included mentally handicapped children, and the research sample was chosen in a deliberate way from the mentally handicapped children "who are able to learn" with an IQ ratio of (50-70) within the Iraqi General Association for Child Protection (Dar Al-Hanan for Intellectual Rehabilitation), which numbered 14 mentally handicapped children.

The researcher used the following tools:

Social skills questionnaire form for mentally handicapped children "who are able to learn" prepared by the researcher.

A recreational program for the development of social skills for mentally handicapped children "who are able to learn", prepared by the researcher.

At the end of the study, the researcher reached the following conclusions and recommendations:

There is no positive effect between boys and girls on social skills (communication - participation - social etiquette - dealing with money and buying).

There is a positive, statistically significant effect between the measurement periods (pre- and post-measurement) in social skills (communication - participation - social etiquette - dealing with money and buying) and in favor of the post-measurement.

There are statistically significant differences in the social etiquette skill between the post and tribal measurements and in favor of the tribal measurement.

There is a positive impact of the proposed recreational program on social skills (communication - participation - social etiquette - dealing with money and buying).

The researcher recommended paying attention to children with intellectual disabilities and paying attention to their psychological and social aspects.

The researcher praised the proposed recreational program and suggested adding it to programs for people with intellectual disabilities.

7.3 The study of Jokha Muhammad Salim Al-Sawfiya:

Study Title: The effectiveness of a training program in developing some social skills for a sample of pre-school children.

The study aimed to measure the effectiveness of a training program in developing some social skills for a sample of pre-school children. The study community included children 4-6 years of second-level children in pre-school education schools. The program was applied to a sample of (20) children. of pre-school children (4-6 years) from Sinaw School in North Al Sharqiyah Governorate, Sultanate of Oman. The researcher used the experimental method for its relevance to the nature of the study.

The researcher used the following tools:

The researcher used the social intelligence scale mentioned in the study of Al-Qatami and Al-Youssef (2010), which consists of an

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illustrated scale and an observation form for the teacher.

At the end of the study, the researcher reached the following conclusions and recommendations:

The results of the study indicated the realization of the first hypothesis, which is that there are statistically significant differences in social skills, empathy, communication with others, and cooperation among pre-school children in the pre- and post-tests due to the training program used in this study. In addition, the results of the post and follow-up measures indicated that the second hypothesis was verified, as there were statistically significant differences between the two post-measurements and follow-up in social skills (empathy, communication with others, and cooperation among a sample of pre-school children in favor of follow-up measurement, as children's skills increased.

At the end of the study, the researcher recommended applying the program offered by the current study in pre-school education schools in the Sultanate of Oman.

8. Method and Tools:

8.1 Research Methodology:

The experimental method was used for its suitability and the nature of the problem presented as an experiment aimed at identifying the role of an adapted motor program for neuromuscular coordination exercises in developing the social skills of deaf-mute children.

8.2 Research community:

Our research community represented deaf-mute children with 40 children present in the School for Visually Impaired Children in Ben Jerma neighborhood in Djelfa.

8.3 Research sample:

Due to our use of the experimental method, we chose the sample in a simple random way, so that the research sample consisted of 40 children aged 12-15 years of deaf-mute children who are present in the School for Visually Impaired Children in the Bin Jarma neighborhood of Djelfa, and the sample was divided into 20 control samples and 20 samples experimental kid.

8.4. Data collection tools:

Neuromuscular compatibility tests.

Social Skills Scale.

Arab and foreign sources and references.

SPSS statistical bag.

Hand balls, cones, chalk, tennis balls.

8.5 Validity and stability of the scale:

8.5.1 Credibility:

The scale was presented to 10 professors specialized in the field of educational sociology and professors in the field of sciences and techniques of physical and sports activities, and the scale was modified according to their directives.

Table 1 Shows the internal consistency coefficients for the dimensions of the scale

| Dimensions | Correlation coefficient |
|--------------------------------|-------------------------|
| Communication skills | <i>0.641</i> |
| Advocacy and support skills | <i>0.706</i> |
| Sharing and empathizing skills | <i>0.627</i> |

It is clear from the previous table that all the values of the correlation coefficients are significant at the significance level (0.01).

8.5.2 Scale stability:

Table 2 shows the values of the stability coefficients using the alpha-Cronbach method and the split-half method

| Scale dimensions | Alpha-Cronbach coefficient | Spearman-Brown hash halves |
|-----------------------------|----------------------------|----------------------------|
| Communication skills | <i>0.647</i> | <i>0.781</i> |
| Advocacy and support skills | <i>0.801</i> | <i>0.763</i> |
| Empathy and sharing skills | <i>0.746</i> | <i>0.822</i> |
| Overall score of the scale | <i>0.853</i> | <i>0.821</i> |

The previous table shows that the values of the stability coefficients are statistically significant at the level of significance (0.01), which indicates that the scale is stable.

8.6 The conditioning kinetic program:

Scientists in this field such as Muhammad Hassanein and Mufti Hammad compiled the standardized neuromuscular compatibility tests used in previous studies. The tests were adapted and modified according to the opinions of experts and professors in this field.

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| | | | |
|--|-------------------------------|--|------------|
| Table 3 shows the results of the survey of experts' opinions on the elements of the proposed adapted program | Variables | Test | Percentage |
| 1 | Program duration | 8 weeks | 97% |
| 2 | Count the units | Unit/Week | 95% |
| 3 | Unit time | 35-45 Minutes | 100% |
| 4 | Basic elements of the program | General - private - individual exercises | 100% |
| 5 | Intensity | From easy to hard | 100% |

The air-conditioned kinetic program contained the stages of the classes as follows:

The preparatory part: contains the organizational aspects and general and specific physical preparation for deaf-mute children and lasts 05 minutes

The main part: it is the part of performing the exercises of the program related to neuromuscular coordination, it contains learning situations and indicators of achievement, in addition to exercises related to neuromuscular coordination, and it lasts for 35 minutes.

Closing part: This part represents rest and physical compensation, in which the return to the normal state lasts 05 minutes.

8.7 Tests used in the program:

By reviewing a number of scientific sources and references, and

by presenting exercises to experts in this field, the following tests were approved to test the neuromuscular compatibility of deaf and dumb children:

- **Numbered Circuits Test:** (Hassanein, 2004, p. 66)

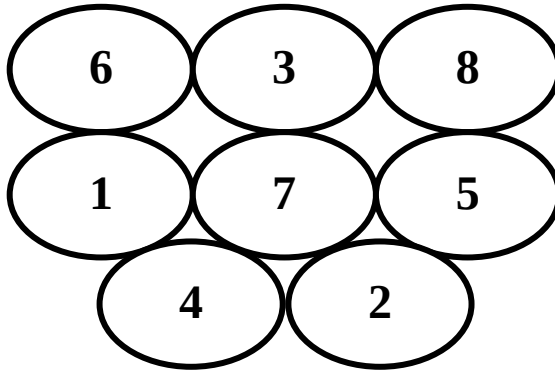


Figure 1 Test numbered circuits

The purpose of the test: To measure the compatibility between the eyes and the legs.

Tools used in the test:

A stopwatch. Eight circles are drawn on the ground, each with a diameter of sixty (60) centimeters. The circles are numbered as shown in Figure (1).

Performance Specifications:

The tester stands inside Circle No. (1), when he sees the start signal, he jumps with both feet to Circle No. (2), then to Circle No. (3), then to Circle No. (4).... Until Circle No. (8), this is done with maximum Speed.

Recording: Records for the laboratory the time it takes to travel through the eight circuits.

- **Throwing and receiving balls test:** (Hassanein, 2004, p. 68)

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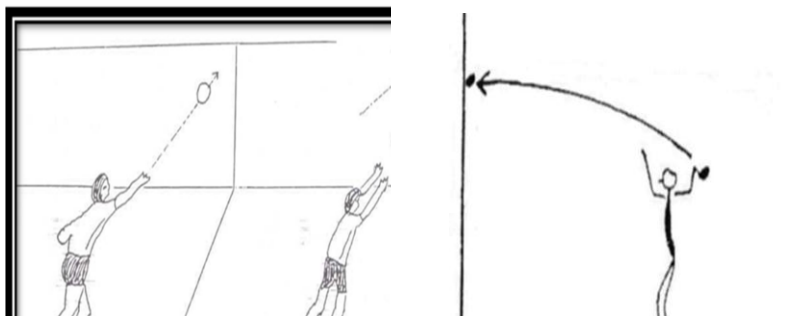


Figure 2 The test of throwing and receiving balls

Purpose of the test: To measure the compatibility of the eyes and arms

Tools: 20 tennis balls, against a wall, a line drawn 5m from the wall.

Performance specifications: The laboratory stands in front of the wall and behind the line drawn on the ground, where the test is carried out according to the following sequence:

- Throwing the ball five consecutive times with the right hand, provided that the tester receives the ball after it bounces from the wall with the same hand.
- Throwing the ball five times in a row with the left hand, provided that the ball is received by the tester after it bounces from the wall with the same hand.
- Throwing the ball five times with the right hand, provided that the tester receives the ball after it bounces from the wall with the left hand.
- Throwing the ball five times with the left hand, provided that the tester receives the ball after it bounces from the wall with the right hand.

Registration: For each correct attempt, a score is calculated for the laboratory, meaning that the final score is (10) degrees

8.8 Scientific bases for the tests used in the research:

-Test validity:

A special form for determining the neuromuscular compatibility tests (eye with arm and eye with man) was presented to a number of

experts and specialists and the results were as shown in the table below:

Table 4 shows the percentage of agreement and acceptance of experts

| Variables | Agreement ratio | Acceptance |
|---------------------------------|-----------------|------------|
| Numbered circuit test | %95 | Accepted |
| Throwing and receiving the ball | %91 | Accepted |

-Stability and objectivity of the test:

A fixed test means "that which gives similar results or the same results if it is applied more than once in similar conditions". (Al-Zayoud & Alyan, 2005, p. 98)

One of the important factors that must be met in a good test is the condition of objectivity, which means freedom from fanaticism and not introducing personal factors. (Ibrahim, 1999, p. 33)

When conducting tests or measurements, the test-taker, evaluator, or researcher must stay away from submission or bias to his personal opinions, but must rely on conclusive evidence and proofs to rely on in the evaluation process. (Al-Hakim, 2004, p. 45)

For the purpose of finding the stability and objectivity of the test, the test was conducted and then the test was re-tested on the exploratory experiment sample after a week of the initial test, as the law of the simple correlation coefficient (Pearson) was used to extract the reliability coefficient and the objectivity value of the test, where the two tests enjoyed as much as high stability.

9. Results and their discussion:

Table 5 shows the arithmetic averages and standard deviations of the control and experimental groups for the dimension of communication skills

| Dimension | Experimental group | | Controlling group | | T Value | Indication level |
|----------------------|--------------------|-------|-------------------|-------|---------|------------------|
| | V | T | V | T | | |
| Communication skills | 37.46 | 1.945 | 35.21 | 2.147 | 3.105 | Indicative |

From Table No. (05), we find that the mean value of the experimental group was 37.46 and the value of the standard deviation was 1.945. The mean value in the control group was 35.21 and the value of the standard deviation was 2.147, and the value of "t" was 3.105.

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It is clear from the table that there is a statistical significance between the experimental group and the control group in favor of the experimental group in communication skills, and it is statistically significant at the significance level of 0.01, which indicates the improvement of communication skills among deaf-mute children after practicing neuromuscular compatibility muscular exercises.

Table 6 shows the arithmetic averages and standard deviations of the control and experimental groups for the dimension of support and support skills

| Dimension | Experimental group | | Controlling group | | T Value | Indication level |
|-----------------------------|--------------------|-------|-------------------|-------|---------|------------------|
| | V | T | V | T | | |
| Advocacy and support skills | 30.19 | 2.602 | 28.44 | 1.458 | 3.742 | Indicative |

From Table (06): it appears that the values of the means in the experimental group reached 30.19, with a standard deviation of 2.602, and the averages in the control group amounted to 28.44, with a standard deviation of 1.458, and the value of “t” reached 3.742.

It is clear to us from Table (06) that there are statistically significant values between the control and experimental groups and in favor of the experimental group, and it is statistically significant at the significance level of 0.01, which indicates an improvement in the skills of support and support, and this is after the deaf-mute children practiced neuromuscular compatibility exercises, and this is attributed to the adapted motor program for exercises neuromuscular compatibility.

Table 7 shows the arithmetic averages and standard deviations of the control and experimental groups for the dimension of participation skills

| Dimension | Experimental group | | Controlling group | | T Value | Indication level |
|----------------------|--------------------|-------|-------------------|-------|---------|------------------|
| | V | T | V | T | | |
| Advocacy and support | 30.19 | 2.602 | 28.44 | 1.458 | 3.742 | Indicative |

| | | | | | | |
|--------|--|--|--|--|--|--|
| skills | | | | | | |
|--------|--|--|--|--|--|--|

From Table (07): it appears that the mean values in the experimental group amounted to 34.42 with a standard deviation of 1.691, and the averages in the control group amounted to 31.68 with a standard deviation of 2.317, and the value of “t” reached 4.145

It is clear to us from Table No. (07) that there are statistically significant values between the control and experimental groups and in favor of the experimental group, and it is statistically significant at the significance level of 0.01, which indicates an improvement in the skills of participation and empathy, and this is after the deaf-mute children practiced the neuromuscular compatibility exercises, and this is attributed to the adapted motor program Neuromuscular coordination exercises

Table 8 shows the arithmetic averages and standard deviations of the control and experimental groups for the dimensions of the social skills scale and the total score of the scale

| Dimensions | Experimental group | | Controlling group | | T Value | Indicati on level | ETA Box | Effect size |
|--------------------------------|--------------------|-------|-------------------|-------|---------|-------------------|---------|-------------|
| | V | T | V | T | | | | |
| Communica tion skills | 37.46 | 1.945 | 35.21 | 2.147 | 3.105 | 0.01 | 0.34 | Large |
| Advocacy and support skills | 30.19 | 2.602 | 28.44 | 1.458 | 3.742 | 0.01 | 0.28 | Large |
| Sharing and empathizing skills | 34.42 | 1.691 | 31.68 | 2.317 | 4.145 | 0.01 | 0.51 | Large |
| The overall score of the scale | 138.44 | 3.843 | 128.87 | 3.758 | 6.259 | 0.01 | 0.79 | Large |

Table No. (08) shows the results of measurements of averages, deviations, and total scores of the social skills scale. From the previous table, it became clear to us that there are statistically significant differences at the significance level (0.01) between the mean scores of the experimental and control groups in favor of the post-measurement on all dimensions of the social skills scale and degree. The total scale of the scale in favor of the experimental group members, which indicates an improvement in social skills among the members of the experimental group that received the adapted motor program for the neuromuscular coordination exercises used in the study, compared to the control group that did not receive the program,

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and through the results of the ETA square, we conclude that the effect size was large.

10. Discussion and interpretation of the results:

Discuss the results of the main hypothesis, which states

The kinesthetic conditioning program for neuromuscular coordination exercises positively affects the development of some social skills among deaf-mute children (12-15) years

The fulfillment of the basic hypothesis is always related to the extent to which the partial hypotheses are achieved. From the results of Table No. 08, it is clear to us that all the partial hypotheses were verified with statistical significance and in favor of the experimental group and with a great effect. Hence, the text of the basic hypothesis has been achieved, meaning that the adapted motor program for neuromuscular compatibility exercises positively in the development of some skills. The social skills of deaf-mute children (12-15) years old, and the researcher attributes this great influence on the social skills of deaf-dumb children to the content of the adapted motor program and to the neuromuscular compatibility exercises. The study is under research, and it is known that deaf-dumb children lack the sense of hearing, which is very important in their lives, and by using motor programs aimed at strengthening the other senses, especially the sense of sight, by developing neuromuscular coordination between the eye and the hand, between the eye and the leg, and the general neuromuscular coordination.

We find that deaf-mute children have acquired neuromuscular harmony between the various parts of the body and the senses, and this would raise their psychological and social skills, self-confidence, and get out of repression, anxiety, feeling of inferiority and failure. The researcher attributes the development in social skills to the adapted motor program, which has achieved good results. This is consistent with the study of Ahmed bin Ali, the study of Suha Mahmoud Abbas, as well as the study of Jokha Muhammad Selim, in which the researchers praised the adapted movement programs and their positive impact on each of the psychological and social aspects of people with special needs, especially deaf children, as they are the closest to the normal.

11. Conclusions and Recommendations:

11.1 Conclusions:

There is a direct effect of the adapted program of neuromuscular coordination exercises in increasing the social skills of deaf-mute children among deaf-mute children (12-15) years.

The adapted motor program for neuromuscular coordination exercises develops communication skills for deaf-mute children (12-15) years old.

The adapted motor program for neuromuscular coordination exercises develops support and support skills for deaf-mute children (12-15) years old.

The adapted motor program of neuromuscular coordination exercises develops the skills of empathy and participation in deaf-mute children (12-15) years old.

11.2 Recommendations:

- Work on integrating neuromuscular compatibility exercises in the sports curricula for deaf and dumb children, and this is to develop neuromuscular compatibility for this category
- Conducting research and studies in the field of harmonic exercises and neuromuscular compatibility for deaf-mute children and working on developing the physical abilities of deaf-mute children and enriching the cognitive aspect of people with special needs.
- The need to pay attention to the deaf-mute and to the sports designated for this category, and to work on integrating this category in the various fields of sports and physical exercises
- Providing the tools and means, as well as the equipped halls and the necessary special fields for practicing sports inside and outside schools for the hearing impaired.
- Work to pay more attention to the social aspect of deaf-mute children because of its great impact on the lives of deaf-mute children.

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