

The effect of modified physical activities on developing some basic motor skills in children with autism

Chalal Ismail Mustapha^{1*}, Chenouf Khaled², Adda Ben Ali³

¹Institute Sciences And Techniques Of Physical And Sport Activities, University Of Tissemsilt, Algeria, E-mail: mustapha.chaalal@univ-tissemsilt.dz

²Institute Sciences And Techniques Of Physical And Sport Activities, University Of Tissemsilt, Algeria, E-mail: khaled.chenouf@univ-tissemsilt.dz

³Institute Sciences And Techniques Of Physical And Sport Activities, University Of Mohamed Kheider Biskra, Algeria, E-mail: benali.adda@univ-biskra.dz

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Abstract:

Through this study, we aim to identify the effect of adapted physical activities in developing some motor skills in autistic children, as well as to draw attention to this type of specialized sport and integrate it in the field with autistic children on a broader basis, and to know the most important physical and physical benefits through activities. Different types of adapted physical activity were used. The experimental approach was used by designing two groups, a control group and an experimental group, with a pre- and post-measurement. The study sample consisted of children with moderate-severity autism who were amenable to learning. They numbered 10 (05 control) (05 experimental) and their ages ranged between (6-9). years) as they were chosen intentionally. The results of the study related to basic motor skills: running, jumping, throwing, balance, catching and throwing a ball, showed that there were statistically significant differences between the pre- and post-measurements. The percentage of improvement between the pre- and post-measurements for the experimental sample in basic motor skills was between (21% to 75%, while the level of social skills reached (55.1%). Finally, we concluded a set of recommendations that must be implemented to reduce the severity of this phenomenon.

Keywords: modified physical activities, autism, basic motor skills.

1-Introduction and problem of research:

Today's developed countries recognize the importance of childcare and care, She devoted the most attention to the degree to which the standard of civilization and progress among the nations became the amount of interest of each nation in her children and concern for childhood not only for the fitting children, but also for those with special needs. They are a group that cannot be ignored and left to live on the margins of a society that has left them alone or is placing them in their own institutions, and there is no doubt that when we talk about children with autism disorder (El Jaouhari 2004)

Kinetic disorders in the autistic child are one of the most important obstacles they suffer, manifesting themselves through the performance of their basic movements in a way that is consistent and unchanged, and their basic movements are randomly irregular. (Osman 1987) These basic movements are only kinds of movements that shift from random movements to directed movements. And many recent studies have shown that there are problems in the motor aspect of autism children that are general balance problems. Problems with walking, partridge, throwing, jumping, walking balance, such as hitting things easily, stumbling while walking, and difficulty in muscle-based practice (Osman 1987, p. 110)).

Physical and sporting activities in all their forms and means are a prerequisite for communities and one of the indicators of the progress and development they occupy and compete for, It is also a mirror that reflects the cultural and cultural advancement of the members of these complexes, as it is an effective tool to guide the potential and potential of individuals and their potential. Hence, sport is for all as a thought and practice to allow all segments of society exclusively because of the positive effects that benefit their practitioners, including individuals of determination (Majid al-Saleh Sadiq al-Hayek, 2014, p.235).

In our research, we proposed an educational programme using physical tools and activities such as games and motor exercises in order to achieve the goal of developing and improving some basic motor skills such as walking, running, balancing, standing, irrigation, exercises, helping a colleague and playing next door.

Search Problem:

Autism is one of the most complex developmental disorders affecting the child's main features. This disorder attracts the attention of researchers and psychologists in terms of ways of finding appropriate solutions that will help modify their behaviors and find the right way out of the world of unity and mystery into the world of light. The causes of this baffling disorder are not limited to a single cause. This disorder has become an independent classification in special education.

The autistic child shows some differences in motor development because he can walk and run, but he does not show ability like the rest of the ordinary children in these skills or observes in the majority of autistic children do not move their arms to both sides and weak balance when walking or when carrying a particular object. Routine movements and behavioral patterns such as circulation, flap, body shaking, and fingertip walking characterize them. (Al Shamqani 2017. p. 83)

Based on the importance of developing and developing basic motor skills for autism children and based on the humanitarian principles advocated by human rights charters such as equality and equal opportunities the best curriculum and programs for autism children have to be offered in order to invest their energies and potentials. Modified physical activity is an effective educational means. The aim is to create a good individual in society through the comprehensive upbringing of all aspects of the personality, whether psychosocial cognitive as well as physical and health. It also has educational dimensions and at any stage of human life beginning with childhood. That constructive phase in which you outline the child's personality and future. As a therapeutic medium for autism children and developing motor skills, from this point of view, the problem of the current study and the following general question arises:

General question:

Does the modified physical activities programme positively affect the development of some basic motor skills in autistic children?

Sub-questions:

1. Are there statistically significant differences between tribal test results between the control and experimental sample in some basic motor skills?
2. Are there statistically significant differences between tribal test results and the control group's remote test in the selection of basic motor skills?
3. Are there statistically significant differences between tribal test results and post-pilot test in basic motor skills tests?
4. Are there statistically significant differences between remote test results between control and experimental group in basic motor skills tests?

Previous studies on the subject:

Study (Muhammad al-Dayyabat, 2017): the impact of modified sport on the development of certain motor aspects in autistic children "which aimed to recognize the impact of the modified sports programme in the development of certain motor aspects in children with autism disorder, and the sample consisted of" 04 "children ranging from (06-07 years) Then using the experimental method, the study included five tribal and remote tests, as well as a proposed motor skills measurement programme, the results of the study showed motor skills (orderly running, in-box correction, running) indicates that there are statistically significant differences between tribal and post measurements and in favour of dimensional measurement. The results of the study on basic motor skills (running, throwing, jumping and kicking) showed that there were statistically significant differences between tribal and postmetric measurements and for dimensional measurement, while the results on the balance test showed no statistically significant differences.

The study of Ben Harath Omar 2016: entitled "The impact of adapted motor activity on the development of social interaction and emotional balance from the point of view of educators for autistic children" (10 years). The study aims at the impact of adapted motor activity and its implications on the child of autism. The purpose of the study is that adapted motor activity plays a positive role and impact in the social integration of the autistic child through its interaction, the participation of its peers and the development of emotional balance. (10) Statistical educators and relied on many existing standards and questionnaires in other studies and consulted many professors on the allocation of general and sporting psychology. One of the most important results is that the practice of autism child for games and motor activities enables him or her to approach and interact socially, reinforces his or her community orientation, and control his or her emotions through his or her engagement with colleagues.

Study (Ben Kahla al-Arabi, Moisi Farid, Azuz Mohammed, 2021): Title of adapted physical activities and their role in improving some basic motor skills in children with autism disorder and the study aimed at identifying the role of adapted physical activities in improving some basic motor skills in children with autism disorder, The experimental method was used by designing a single group of tribal and postgraduate measurements. The study sample consisted of 20 students with autism spectrum disorder. (16.8%) of the total count of the school community ranging in age (6-8 years) and then tested in the intentional way.

The Study of Nasibah 2018: With its title, a proposed program of motor games has been influenced in the development of certain physical abilities and social behaviors of autism children. experimental method was used due to its relevance to the nature of the study. The study sample consisted of "10" children and ranging in age. (6-11) years and they have chosen the intuitive method, where the proposed program for children's motor games has been applied for two months by three days per week and reality (50d) Six physical tests were used, and the researcher used a measure of adaptive behaviour and social maturity of the mentally handicapped in Jordan, which included three main areas (Social Behaviour, Social Adjustment and Personal Adjustment) The results showed a statistical D impact of the Motor Sports Programme on the development of the social abilities and behaviours of children with autism disorder. In the light of these findings, the study recommended the use of the proposed programme in the centres for autism as it has a clear positive impact on the development of physical abilities and social behaviours.

Study (Pervan Abdullah al-Mufti 2014): "The impact of a motor curriculum on the development of motor and social skills in children with moderate-intensity autism". The experimental method was used to suit the nature of the research. The research community is one of children with moderate-intensity autism disorder and ages 6-9 at the Centre Otizum. (2014-2015) of the 8 children who received one child for a motor disability and another child for taking the medical drug, amounting to a search sample (06) Children and the homogenization of the specimen in (age, height, weight) as was done Using (Motor Skills Tests and Social Skills Scale) as a research tool, the yanis were statistically processed using (computational medium, standard deviation, Bresson's simple correlation coefficient, test-T for associated samples) and the researcher reached the following conclusions:

The play-based motor curriculum outperformed the development of motor skills biting autism children when comparing tribal and postgraduate tests.

The play-based motor curriculum outperformed the development of medium-intensity social skills when comparing tribal and postgraduate tests.

Moes à frea 2002: has developed a program aimed at training 03 children with autism ranging in age from (03-05 (years with the participation of family members by training in motor activities such as walking, playing, verbal and non-verbal responses with the child The training also included the development of some communication skills in the study sample such as social attention to some excitement and free play. The results indicated that the study sample showed a significant decrease in behavioral disorders, increased communication functions, linguistic outcomes and increased entry into preferred activities.

3. Research hypotheses:

General imposition:

Modified physical activities programme positively affects the development of some basic motor skills in autism children.

Sub-hypotheses:

1. There are no statistically significant differences between tribal test results between the control and experimental sample in some basic motor skills
2. There are no statistically significant differences between tribal test results and the control group's remote test in the selection of basic motor skills
3. Statistically significant differences exist between tribal test results and experimental group test in basic motor skills tests
4. Statistically significant differences exist between remote test results between control and experimental group in basic motor skills tests

4. Objectives of the study:

1. Improve and develop some basic motor skills in children with autism disorder.
2. Detect statistically significant differences between the results of tribal and post-metric measurement of motor skills.

3. Detect the effectiveness of the modified physical activity-based motor programme in developing and improving some of the basic motor skills of a sample of autism children.
4. Identify the impact of modified physical activities on the development and development of certain motor skills in a sample of autism children.
5. Recognize the role played by modified sports activities in improving and developing the motor and social skills of children with autism disorder

5. The importance of the study:

This importance is in two important aspects:

First: Theoretical aspect:

1. This study contributes to increasing the ability to develop the motor skills of autism children.
2. The training of this group and the improvement of their level of skills will bring them positive progress in the child's personality.
3. Take advantage of scientific theories in the preparation of the training and development of basic movements.
4. A new addition commends the role of modified physical activities in the development of motor skills, which in turn contribute to their integration with society.

Second: Applied aspect:

1. The ability to benefit from the modified physical activity program in the development and development of motor skills in autism children by applying it to similar samples.
2. The development of motor skills for unitary children and the modification of socially and dynamically inappropriate behaviors is the essence of the qualification process required for members of this category.
3. The process of developing motor skills in autism children helps to do different daily life skills.

6. Introduction to search terms:

6.1. Modified physical activities and sports:

Terminology: Ibrahim and Farahat 1998: Modified physical education means sports and games that are changed so that an individual who is unable to practise and participate in sports can. In the sense of this, they are multiple upscale and preventive programs, which include sports activities and games and which are adjusted to suit disabilities according to their type and severity. (Ibrahim, Farhat, 1998, p 47)

Procedurally: All exercises and sports activities are aimed at giving special attention to the benefit of minors. They have special needs, and according to the study, which concerns the category of autism, we move towards special exercises and games that take into account capacities and characteristics.

In the researchers' view, modified physical activity in the field of study is that of modified activity in sports activities that are consistent with the specificities of the autism category, taking into account their characteristics and the degree of autism.

6.2. Basic Motor Skills:

Terminology: These are motor activities that appear to be general in most children such as walking and running, throwing balls, jumping and jumping and are necessary for the various toys performed by the child" (Afaf Osman, 2012, p 112)

Procedurally: The ability of autism children to perform walking, running, standing, kicking, throwing, balance skill.

In the researchers view, it is the sum of the basic skills that every ordinary or autistic child must acquire.

6.3. Autism:

Terminology: A disorder whose symptoms appear 30 months before the child's age affects a disorder in language, speech, cognitive capacity as well as attachment and belonging to people and juveniles. (Mustafa et al. 2011. p. 26)

Procedurally: A case of neurobiological subjective disorder is the dependence of growth on linguistic axes, emotional and social cognitive or loss after their formation, which negatively affects the child's personality and is called autism spectrum disorder.

In the researchers' view, autism is one of the developmental disorders affecting children that is characterized by developmental delays and deviation in the course of development.

7. Research methodology and field procedures:

7.1. Method:

We used the experimental method to adapt it to the nature of the study by designing two sets, one experimental and the other control with tribal and remote measurement, because what distinguishes accurate scientific activity is the use of experimental method.

7.2. Exploratory Study:

To know the proper and correct way of conducting the tests used in the search and access to the best way of conducting the tests, the preparation of the conditions in which they are performed as a result of the seizure of the test procedure, the procedure of conducting the examination in front of the children.

- Knowing the problems and difficulties, you have in looking through the basic study and then avoiding them.
- To determine the proportion of tests to receive basic mobility and social skills to this category.
- Knowing how well the test fits for the search sample.
- Limitation of the time to conduct the test by the tested sample.
- Selection of the most appropriate statistical means.
- Finding the best way to conduct tests in good conditions.
- Ensure the safety of the devices and tools used.

8. Study Society:

Research Community: The original research community consists of 26 children with autism.

Sample Search: The research sample consisted of 10 children with moderate-intensity autism aged 6-9 years, distributed to 5 control samples and 5 experimental samples. The researcher relied on the diagnosis of specialized doctors about the degree of autism in the children under study.

Sample homogenization: The research sample has been homogenized in some research-related variables: height, weight, and age. As shown in table (01):

Table (01) represents the average arithmetic, standard deviation, distortion and twist value of the search sample.

Variables	Unit Of Measurement	X	Y	Mode	Skewness
Length	124	109.548	8.22	114	0.12
Weight	Kg	22.56	1.34	21	0.09
Age	Month	96.06	11.41	79	0.67

Table (01) shows that all coefficient values are confined between (-1 + 1) indicating the homogeneity of the sample personnel.

9. Fields of Research:

Spatial area: Our experience was conducted at the Al-Shabaab Maishu Stadium located in the Sogar district of Tiaret.

Human field: Reconnaissance sample: included 5 children.

Basic sample: 10 children included 5 experimental and 5 female officers.

Temporal field: Basic Motor Skills Tests were conducted on 1 and 2 February 2023

Tools used in the study: In this study, we used a set of measurements as follows:

Basic Motor Skills Tests: 10m/tha running test for speed measurement, wide out test (cm), ball test (m), and screening test (m), test kicking the ball to the distance (m), test walking with a balance on the tape adhesive with a width of 7cm (m)

Study procedures:

The experience was completed at the Al-Shabaab Maashu Ahmad Stadium in the Sogar Department in the state of Tayyat.

Phase I: The first phase of the test is completed on 22/01/2023 at 10 a.m.

Phase II: The second stage of our testing is on 29/01/2023 at 10 a.m.

Scientific bases of testing:

Stability:

The researchers conducted the first test on a sample of the research community consisting of 05 children on 22-01-2023. The test was re-tested under the same conditions on 29-01-2023. The researchers

used the Pearson coefficient where these transactions ranged from 0.72 to 0.89 and all were greater than the tabular value. This indicates that the test has high stability scores and Table 2 shows this.

Honesty:

Self-honesty: measured by the quadratic root calculation of the constant factor and through Table No (2) shows us those motor skills tests have a high degree of honesty, with values ranging from 0.88 to 0.98 and all greater than the tabular value.

Table (02) shows the sincerity and consistency of motor skills tests

Skills	First Test		Second Test		Test Stability	Test Reliability
	X1	Y1	X2	Y2		
Sprinting 10m	9.96	0.24	4.96	0.19	0.89	0.94
Jumping	0.72	0.10	0.71	0.06	0.78	0.88
Handball	3.90	0.55	3.92	0.51	0.96	0.97
Throw						
Ball Handling	2.80	0.83	3	0.70	0.84	0.91
Ball Kicking	4.74	0.27	4.71	0.19	0.86	0.96
Balancing	3.02	0.63	3.07	0.60	0.94	0.98
Walk						

Substantive:

In this context, the good method of experimenting with an objective framework on the following issues:

The duration and clarity of the instruction on the application of the test, the calculation of the scores, the results of its own test, and in this policy, the use of a group of tests, and all of them The degree of interaction in the framework of the offer and guidance of the laboratory is not characterized by simple enough opportunities to highlight capacities

Search Variables:

Independent variable: the program (modified physical activities).

Dependent Variable: Basic motor skills.

Search Tools:

Sources and references in Arabic and foreign languages. Interviews. Exploratory, experience. Expert Survey Form. Interpometric measurements (weight and height) Basic motor skills tests. Supplement (1).

Test battery design Measuring motor skills based on scientific references (Hilali, 2004), (Hassan, Mufti, 2004),

(Hassan, 2009) for the ages of (06-09) years and these skills were presented to a group of specialized professors whose usability for the age and privacy of the sample was approved and included on the following tests:

Balance skills: Test walk on balance line width 7 hrh line length 06 m.

Transitional speed skills: Running distance of 10m, Bounce from stability to measure the explosive power of the two men.

Processing and dealing skills: Throw a ball by hand to measure the explosive strength of the bowler's arm, kicking the ball by foot as far as possible.

Modified Physical Activities Program:

Design and implementation of the programme:

The program has been prepared through a range of specialized scientific references and related research. (Ahmed Shakir, 2021) (Abdul Hamid Sharaf, 2003) (Hassan, 2009) (Hilmi Ibrahim and Leila Farhat, 1998) (Hassan and Mufti, 2004). (Amin al-Khuli Osama Ratib, 2007) (al-Dosouqi and Tafida, 2021) (Abdel Fattah Matru Ibrahim Abd al-Razaq, 2010) (Momen Mahmoud, 2016) and then presented the program to experts and specialists in physical activity and specialists in curriculum, teaching methods and sports psychology supplement (3) To survey their views on the objectives, foundations and content of the program, such devices, tools, time frame, teaching methods and calendar of the program.

The content of the program:

The program contains individual and collective motor activities and games that fit the specificity of this category and using tools or without tools with the aim of developing basic motor skills (running .jump, throwing balance, catching the ball),.

Devices and tools:

Playground for content execution. Dysphoric plastic collars and sizes. Plastic rings. Medical balls 1 kg. Handballs. Football. Duct tape is different time. Mikati + whistle + tape measuring small plastic balls. Colored balloons.

Programme's overall timeframe:

The duration of the modified physical activities program is 10 weeks. The program includes 30 teaching units at a rate of three units per week and includes a set of motor games, focus games and observation to alert some motor skills (balance, processing and intake). The session time is set at 45 minutes. Initially, the toys are processed and shown to the child with explanation

The main goal of the game is to give the child the opportunity to practice. Initially, some incorrect responses appear and are modified by the researchers and the relevant teacher. The quota also includes breaks that leave the child free to choose to play some games.

Application of the proposed programme:

The proposed educational programme was carried out using modified physical activities for the pilot group's 05 children, while the control group of 05 children used the traditional motor activity of the Mashaal Society for Autism and Trisomy Children for that stage, as follows.

Tribal measurements:

Tribal measurements of the control and experimental sample were carried out on 01, 02/2/2023, at 10 a.m. at Al-Shabaab Maashu Ahmed Al-Sougeur Tiaret.

Program Application:

The pilot programme was implemented from 05/02/2023 to 11/05/2023

Dimensional measurements:

The dimensional measurements were performed after the completion of the application of the program during 16, 17/5/2023 AD, and in the same terms and conditions as tribal measurements.

Statistical treatments:

The researchers used the Social Science Statistical Program Package 22 (SPSS) where the following statistical transactions were used: - arithmetic average - intermediate - standard deviation - coefficient - coefficient .Pearson - test "T-test"

Presentation and discussion of results:

Introduction:

Display tribal and dimensional test results for both samples in tribal and remote tests and statistically process results, then discuss and analyze them

Presentation and analysis of hypothesis results:

Analysis of the results of the first hypothesis: There are no statistically significant differences between the results of tribal measurements of the control and experimental sample in basic motor skills tests.

Table (03) shows homogeneity between control and experimental search samples for kinetic tribal test results

Tests Skills	Control				Experimental				Degrees Of Freedom (Df)	Calculated T	Tabular T	Sig
	Baseline		Baseline		Baseline		Baseline					
	Measurement Results	Y1	Measurement Results	Y2	Measurement Results	Y1	Measurement Results	Y2				
Running Test	6.02	0.88	5.55	0.68	8	0.94	2.30	insignificant				
Jumping	0.65	0.08	0.63	0.09		0.41		insignificant				
Handball Throw	3.68	0.73	3.73	0.46		0.12		insignificant				
Ball Handling	3	0.70	2.80	0.57		0.49		insignificant				
Ball Kicking	4.03	0.33	3.55	0.79		1.23		insignificant				
Balancing Walk	2.40	0.54	2.60	0.89		0.42		insignificant				

Through Table (3) showing tribal test results for control and experimental sample personnel at indicative level (0.05) and degree of freedom (8) we note that:

The results obtained after statistical processing of the total results of the experimental and control search samples, for tribal tests using the indicative test (t) As shown in table 3, which ranged in value from 0.12 as the smallest value to 1.23 as the largest value and are smaller than the value of " T Tabular ", which reached (2.30) at the degree of freedom of 8 and the level of indication of 0.05, confirms that there are no moral differences between these averages, i.e. differences between averages have no statistical significance and therefore this statistical analysis confirms that there is a homogeneity between the control and experimental research samples in basic motor skills.

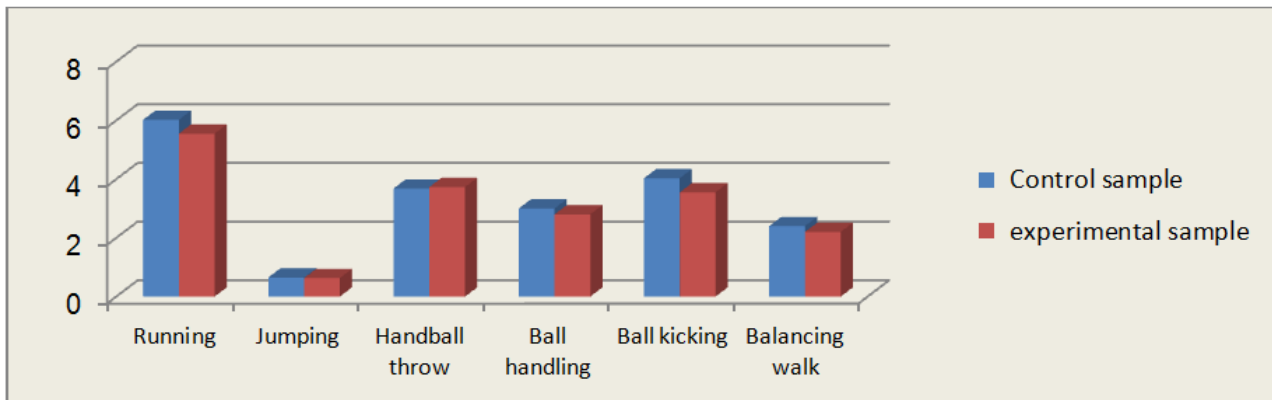


Figure (01): Shows the tribal computational average of the control and experimental sample in motor skills tests

Analysis of the results of the second hypothesis:

There are no statistically significant differences between the results of tribal and remote measurements of the control sample in some basic motor skills.

Table (04) shows the results of tribal and remote tests of the control sample in basic motor skills

Tests Skills	Control Baseline Measurement Results		Experimenta l Baseline Measurement Results		Degrees Of Freedom (Df)	Calculate d T	Tabula r T	Sig	Improvemen t Rate
	X1	Y1	X2	Y2					
Running Test	5.55	0.68	5.42	0.63	4	0.32	2.13	insignifican t	2.34
Jumping	0.63	0.09	0.69	0.09		1.01		insignifican t	4.75
Handball Throw	3.73	0.46	3.96	0.46		0.78		insignifican t	6.16
Ball Handling	2.60	0.89	3	0.70		0.78		insignifican t	7.02
Ball Kicking	3.55	0.79	3.64	0.76		0.18		insignifican t	2.53
Balancin g Walk	2.80	0.57	3.10	0.64		0.77		insignifican t	10

Through table (4) showing test results tribal and obstetric core motor skills of control sample personnel at indicative level (0.05) and degree of freedom (4) note that:

In the running test, the female officer's sample in tribal measurement achieved an average calculation of 5.55 Standard deviation of 0.68. In the dimensional measurement, they achieved an average calculation of 5.42 and standard deviation of 0.63. (T) Student calculated (0.32) is smaller than (v) Student's tabular value

estimated at (2.13). This indicates that there is no statistical difference between dimensional and tribal measurement, while the improvement rate was 2.34%.

In the constant jump test, the control sample members of the tribal measurement achieved an average calculation of 0.63 and a standard deviation of 0.09. In the dimensional measurement, they achieved an average calculation of 0.69 and a standard deviation of 0.09. Student's calculated value (1.01) was smaller than Student's tabular value, estimated at 2.13, indicating no statistical difference of D, while the improvement rate was 4.76%.

In the ball-throwing test, the female control sample members achieved an average calculation of 3.73 and a standard deviation of 0.46. In the dimensional measurement, they achieved an average calculation of 3.69 and a standard deviation of 0.46. (T) Student calculated (0.78) is smaller than (v) Student's tabular value estimated at (2.13). This indicates that there is no statistical difference of D between tribal and post measurement, while the improvement rate was 6.16%.

In the ball-catching test, the control sample members of the tribal measurement achieved an average calculation of 2.60 and a standard deviation of 0.89, while in the dimensional measurement they achieved an average calculation of 3 and a standard deviation of 0.70. Student's calculated value (0.78) was smaller than Student's tabular value estimated at 2.13. This indicates that there is no statistical difference between the tribal and dimensional measurement of the control group, while the improvement rate was 7.2%.

In the ball-kicking test, the control sample members of the tribal measurement achieved a calculated average of (3.55) and a standard deviation of (0.79), while in the dimensional measurement they achieved a calculated average of (3.64) and a standard deviation of (0.76). Student's calculated value (0.18) was smaller than Student's tabular value estimated at 2.13. This indicates that there is no statistical difference between tribal and dimensional measurement of the control group when the improvement rate was 2.53%.

In the walking balance test, the control sample members in the tribal measurement achieved an average calculation of 2.80 and a standard deviation of 0.57, while in the dimensional measurement they achieved an average calculation of 3.10 and a standard deviation of 0.64. Student's calculated value (0.77) was smaller than Student's tabular value estimated at 2.13, indicating that there was no statistical difference between tribal and post measurement, while the improvement rate was 10%.

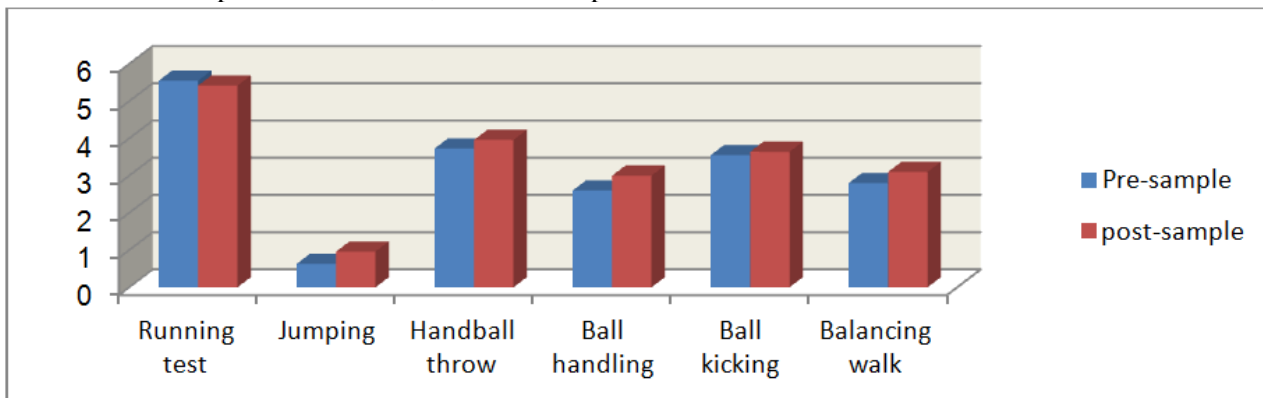


Figure (02): Shows the tribal and post computational average of the control sample in motor skills tests.

Analysis of the results of the third hypothesis:

There are statistically significant differences between tribal measurement and dimensional measurement of the experimental sample in some basic motor skills.

Table (05) shows the results of tribal and remote tests of the experimental sample in basic motor skills.

Tests	Control Baseline	Experimenta l Baseline	Degrees Of Freedom (Df)	Calculate d T	Tabula r T	Sig	Improvemen t Rate		
Running Test	X1 6.02	Y1 0.88	X2 4.66	Y2 0.33	4	3.21	2.13	insignifican t	22.59
Jumping	0.65	0.85	0.86	0.07		4.06		insignifican t	32.30

Handball Throw	3.68	0.73	4.94	0.55	3.05	insignificant t	34.23
Ball Handling	2.40	0.54	4.2	0.83	4.02	insignificant t	75
Ball Kicking	4.03	0.33	4.87	0.22	4.63	insignificant t	20.84
Balancing Walk	3	0.70	4.17	0.56	2.71	insignificant t	39

Through table (05) showing test results Tribal and Obstetric Basic Motor Skills for Experimental Sample Personnel at Indicative Level (0.05) and degree of freedom (4) note that:

In the running test, the test sample personnel in the tribal measurement achieved a calculated average of (6.02) Standard deviation of 0.88. In the dimensional measurement, they achieved an average calculation of 4.66 and standard deviation of 0.33. (T) Student calculated (3.21) is greater than (T) Student tabular value estimated at (2.13). This indicates a statistical difference of D between measurement, tribal and dimensional in favor of dimensional measurement when the improvement rate was 22.59%.

In the stabilization test, the test sample members in the tribal measurement achieved an average calculation of 0.65 and a standard deviation of 0.85. In the dimensional measurement, they achieved an average calculation of 0.86 and a standard deviation of 0.07. Student's calculated value (4.06) was greater than Student's tabular value estimated at 2.13. This indicates a statistical difference in favor of dimensional measurement when the improvement rate was 32.30%.

In the ball-throwing test, the test sample members in the tribal measurement achieved an average calculation of (3.68) and a standard deviation of (0.73). In the dimensional measurement, they achieved an average calculation of (4.94) and a standard deviation of (0.55). (T) Student calculated (3.05) is greater than (T) Student tabular value estimated at (2.13). This indicates a statistical difference between tribal and dimensional measurement in favor of dimensional measurement while the improvement rate was 34.23%.

In the ball-catching test, the study sample members achieved a calculated average of 2.40 and a standard deviation of 0.54, while in the dimensional measurement they achieved a calculated average of 4.2 and a standard deviation of 0.83. Student's calculated value (4.02) was greater than Student's tabular value estimated at 2.13. This indicates a statistical difference of D between tribal and post measurement in favor of dimensional measurement, while the improvement rate was 75%.

In the ball-kicking test, the test sample members achieved a calculated average of (4.03) and a standard deviation of (0.33), while in the dimensional measurement they achieved a calculated average of (4.87) and a standard deviation of (0.22). Student's calculated value (4.63) was greater than Student's tabular value estimated at 2.13. This indicates a statistical difference between tribal and post measurement in favor of dimensional measurement, while the improvement rate was 20.84%.

In the balanced walking test, the test sample members in the tribal measurement achieved a calculated average of (3) and a standard deviation of (0.70), while in the dimensional measurement they achieved a calculated average of (4.17) and a standard deviation of (0.65). The calculated value of (T) Student (2.71) is greater than (T) Student's tabular value estimated at (2.13). This indicates a statistical difference between tribal and post measurement in favor of dimensional measurement, while the improvement rate was 39 %.

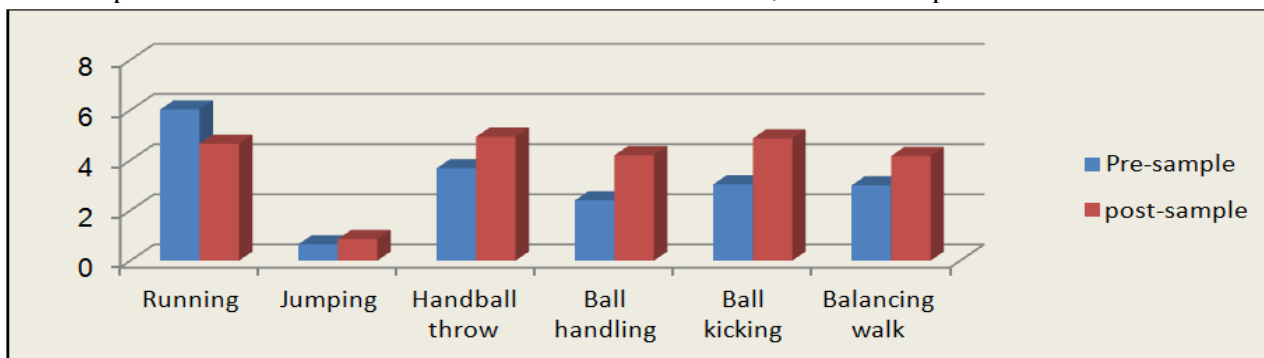


Figure (03): Shows the tribal and dimensional computational average of the experimental sample in basic motor skills tests

Analysis of the results of the fourth hypothesis:

There are statistically significant differences between dimensional measurement, control and experimental sample in some basic motor skills and social skills

Table (06): shows the results of the experimental sample and control tests in basic motor skills.

Tests	Control Baseline Measurement Results	Experimental Baseline Measurement Results	Degrees Of Freedom (Df)	Calculated T	Tabular T	Sig		
Skills	X1	Y1	X2	Y2				
Running Test	5.42	0.63	4.66	0.33	8	2.36	2.30	insignificant
Jumping	0.69	0.09	0.86	0.07		3.09		insignificant
Handball Throw	3.96	0.46	4.94	0.55		3.04		insignificant
Ball Handling	3	0.70	4.2	0.83		2.44		insignificant
Ball Kicking	3.64	0.76	4.87	0.22		3.45		insignificant
Balancing Walk	3.10	0.64	4.17	0.65		2.60		insignificant

Through table (06) showing the results of the tests the dimensional basic motor skills of the test and control personnel at the indicative level (0.05) and the degree of freedom (8) we note that:

In the running test, the female officer's sample in the telemetry achieved an average calculation of 5.42. Standard deviation of 0.63. Test sample personnel achieved an average calculation of 4.66 and standard deviation of 0.33. (T) Student calculated (2.36) is greater than the value of (T) Student tabular estimated at (2.13). Therefore, the apparent differences between the median results of the remote test of the search and experimental samples have a statistical indication in favor of the experimental sample and this is a reference to the proposed modified physical activity program.

In the constant jump test, the control sample personnel in the dimensional measurement achieved an average calculation of (0.69) Standard deviation of 0.09. Test sample personnel achieved an average calculation of 4.86 and standard deviation of 0.07. (T) Student calculated (3.09) is greater than the value of (T) Student tabular estimated at (2.30). Therefore, the apparent differences between the two median test results of the control and experimental search samples have a statistical indication in favor of the experimental sample and this is a reference to the proposed modified physical activity program.

In the ball-throwing test, the control sample personnel in the dimensional measurement achieved an average calculation of (3.96) Standard deviation of 0.46. Test sample personnel achieved an average calculation of 4.94 and standard deviation of 0.55. (T) Student calculated (3.04) is greater than the value of (T) Student tabular estimated at (2.30). Therefore, the apparent differences between the two median test results of the control and experimental search samples have a statistical indication in favor of the experimental sample and this is a reference to the proposed modified physical activity program.

In the ball-catching test, the control sample members achieved an average calculation of (3) and a standard deviation of (0.63). The test sample personnel achieved an average calculation of (4.66) and a standard deviation of (0.33). (T) Student calculated (2.36) is greater than the value of (T) Student tabular estimated at (2.13). Therefore, the apparent differences between the two median test results of the control and experimental search samples have a statistical indication in favor of the experimental sample and this is a reference to the proposed modified physical activity program.

In the ball-kicking test, the officers' sample in the telemetry achieved an average calculation of 5.42. Standard deviation of 0.63. Test sample personnel achieved an average calculation of 4.66 and standard deviation of 0.33. (T) Student calculated (2.36) is greater than the value of (T) Student tabular estimated at (2.13). Therefore, the apparent differences between the two median test results of the control and experimental search samples have a statistical indication in favor of the experimental sample and this is a reference to the proposed modified physical activity program.

In the walking balance test, the female control sample members achieved an average calculation of (5.42) and a standard deviation of (0.63). The test sample personnel achieved an average calculation of (4.66) and a standard deviation of (0.33). (T) Student calculated (2.36) is greater than the value of (T)

Student tabular estimated at (2.13). Therefore, the apparent differences between the two median test results of the control and experimental search samples have a statistical indication in favor of the experimental sample and this is a reference to the proposed modified physical activity program.

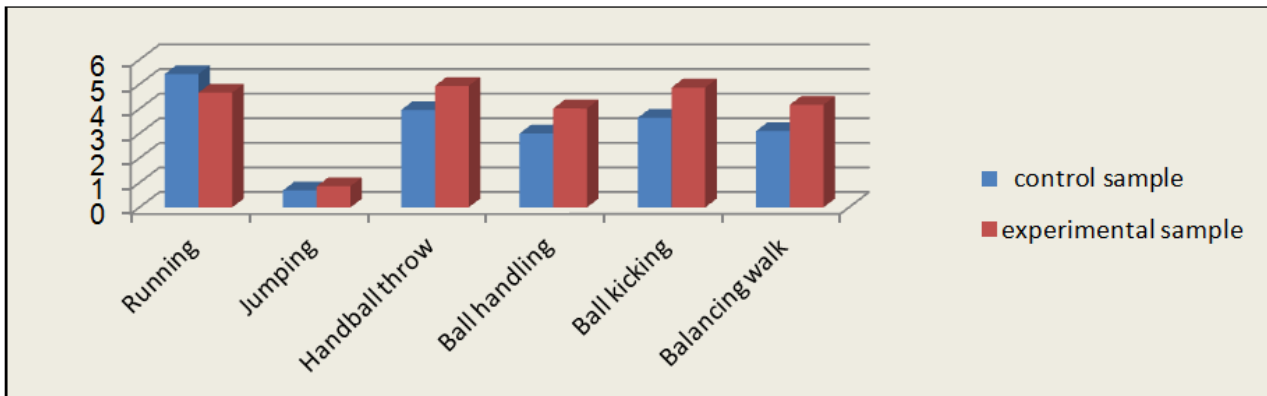


Figure (04): Shows the numerical average of the control and experimental search samples in basic motor skills tests.

Discussion and interpretation of the study's findings in the light of hypotheses:

Discussion and interpretation of the results of the first partial hypothesis:

After presenting the results of the first partial hypothesis in Table 3 and 4, there are no statistically significant discrepancies between the results of tribal measurements of both control and experimental samples at the level of basic motor skills. Each of the calculated T values is smaller than (T) tabular and this confirms the validity of our hypothesis.

This statistical analysis thus confirms that there is a homogeneity between the control and experimental research samples in basic motor skills, which helps to determine the amount of change and the level of progress for each group during and after the end of the field experiment through the application of the modified physical activities program in autism children.

Discussion and interpretation of the results of the second partial hypothesis:

The second hypothesis states that there are no statistically significant differences between tribal and dimensional measurement results of the control sample in basic motor skills tests. It is clear from Table (05) that all values (T) Calculated smaller than the value of (T) tabular in all basic motor skills and therefore no statistically significant differences between tribal and dimensional measurement results as the percentage of improvement was limited to all motor skills between (% 2.34 and% 10) This is due to the non-application of the modified physical activities program to the control sample and the adoption of the nannies of Mashaal Autism and Trisomy Society on the traditional method of free play that is unintentional and non-based on scientific grounds, as well as the irregularity in the practice of physical activities, which has a negative impact on the development of motor skills. (1994)

The program directed has a better positive impact than the programmed program not directed at developing motor skills. Other reasons include the inexperience of nannies in dealing with modified physical activities and their contents of individual and targeted group motor activities, excitement games and motivation to learn new skills. This is consistent with the study of Shaltout Ibrahim (1990), which confirms that targeted sports programs require the presence of specialized supervisors.

Discussion and interpretation of the results of the third partial hypothesis:

The third hypothesis states that there are statistically significant differences between tribal and dimensional measurement results of the experimental group in motor skills tests and is shown by the results of table (07) There are differences in all the following motor tests (running test, jump test, ball catcher test, ball throwing test, ball kicking test and balance test) Where we found that there was an improvement in the level of basic motor skills in the individuals of the experimental sample and the ratio of improvement between tribal and dimensional measurement ranged from (20). 75).

This is due to the clarity and simplicity of the content of the program in the children participating in it and its containment of a variety of motion games, purpose and simple that are commensurate with the characteristics and tendencies of this stage The program also included planned kinetic activities based on

sound scientific foundations in a form of play, fun and teamwork that helped improve their physical abilities thereby increasing their level of motor skills. (Mohammed 2007).

That play is a therapeutic way for educators to solve the problems of the autistic child and a means to tame him for the development of the body and the development of different motor skills (Muhammad 2007, 31).

These results are consistent with the assertion of Al-Khuli and Osama Salary that the practice of people of determination for sports activities improves their physical and motor abilities. The use of appropriate means and tools to implement educational units with children from different balls, colors, collars, ropes, rings, audio and visual thrills is attractive and the use of modeling methods, demonstration of motor skills and various reinforcement methods has increased the motivation of children to practice and learn different skills and this is what he wished for in the results. The results of our study are consistent with the study (Ben Kahla Al Arabi and Others 2021) and the study (Qudorbay and others. 2019) which showed the results of the study on basic motor skills (running, jump, throwing, musk, kicking) to the existence of statistically significant differences in favor of remote results.

Discussion and interpretation of the results of partial hypothesis IV:

The fourth hypothesis states that there are statistically significant differences in the results of dimensional measurements of basic motor skills between the control sample and the experimental sample in favor of the experimental sample, as shown in Table No. (07) All calculated V values are greater than the tabular T value indicating statistically significant differences in favor of the experimental sample's dimensional measurement in basic motor skills tests. This means the development of basic motor skills (running, jumping, throwing, catching the ball. Kicking the ball and balance) of the experimental sample compared to the results of the control sample that has not evolved. This development is due to the modified physical activity program which contains motor activities and games where its procedural objectives were clear and prepared in a scientific manner commensurate with the specificity of this category. It enabled the individuals of the experimental sample to make significant progress in acquiring basic motor skills. (Running, jumping, throwing ball, catching and kicking ball and balance).

It did not affect their skills, and so the fourth hypothesis comes true.

Discussion and interpretation of the results of the general premise:

The program of modified physical activities positively affects the development of some basic motor skills in autism children. Through table (3) (4) to which we discussed and analyzed and the results confirmed that there are no statistically significant differences between tribal measurement and the control sample's dimension in motor skills (running and jump).

The existence of statistically significant differences between tribal and remote testing of the experimental sample in all motor and social skills is due to the modified physical activity program applied to the experimental sample and through tables (6) (7) in which the comparison between tribal and post-empirical measurements of the experimental sample was established. This confirms that the Modified Physical Activity Program has developed basic motor skills (running, dumping, and jump). Catch the ball. Kick the ball etc.

Conclusion:

The role played by modified physical activity assisted by the unitary child is to enjoy his life within the limits of both his and his family's guardian, who suffers a great deal due to this inadequacy and disability, which is manifested in their children, especially physically and socially, to an effective role especially in the absence and absence of detection of cure. This is why we saw in our study the extent to which modified physical activity affects the development of certain basic and social motor skills. To provide a modified physical activities program that contributed to the development of some of the children's motor and social skills through the results obtained, which demonstrates its effective role in helping this group of society that suffers so much in silence that few understand. In conclusion, we cannot but say that the role of modified physical activity is not limited to the individual's physical and social development but extends to all aspects of a disabled child.

Suggestions and recommendations:

1. The absence of statistically significant discrepancies between the control and experimental sample in all tribal measurements of basic motor skills indicates a convergence of the samples' levels of basic motor skills
2. The absence of statistically significant discrepancies between tribal and remote test results of the control sample in basic motor skills indicates that the control sample does not improve the level of motor skills.
3. The existence of statistically significant differences between tribal measurement and the dimension of the children of the experimental sample and in favor of dimensional measurement indicating the positive impact of the modified physical activities program.
4. The existence of statistically significant differences in dimensional measurements between the control sample and the experimental sample in basic motor skills and in favor of the experimental sample confirms that the modified physical activity program is a statistically significant indicator of the extent to which the modified physical activity program affects the development of motor skills. This includes targeted motor activities that led to an improvement in the level of motor skills in the experimental sample.
5. The modified physical activity program positively affects the development of some motor skills in the autism child.

Proposals and recommendations:

1. The interest of autistic children's centers and specialized associations is to include in their programme motor activities, especially modified as an essential part of the treatment plan for autistic children.
2. Sensitizing autism caregivers on the importance of basic motor and social skills in reducing stereotypical movements
3. Attention should be paid to the family's guidance on the importance of modified physical activities of the autistic child and its role in improving certain vulnerabilities.
4. The need to take care of the development of programmes for unitary children in an integrated manner to enable them to integrate into society.
5. The need to train the family and the teacher in the use of motor activities and to give them a variety of models of activities that help them to meet the individual nature of the child and thereby promote the development of the child's shortcomings.
6. Provide specific means and tools for the implementation of motor activities with children with autism disorders in institutions and centers that serve this group of children.
7. The need to take care of the most effective technicians with children to acquire motor skills such as reinforcement methods, modeling etc.

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