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The effect of rapid strength training on developing the skills of bras handling and shooting in youth basketball

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ABSTRACT

The research consisted, of four chapters or chapters, in the first section between, introduction, and the importance of the research and the exercises were addressed, and their importance, especially the diversity of exercises in basketball due to the large number of requirements either a problem and through the work of the researcher and his knowledge of a lot of exercises, note that most of the teams in the local basketball game The way of playing and preparing for the attack seems to be slow and traditional, which leads to the loss of many balls and lacks a lot of accuracy when applying performance Tactical and random implementation The aim of the research to the effect of preparing rapid strength exercises in the development of the skills of handling chest and shooting basketball and scoring football for alum, and the sample was randomly selected for two groups (experimental, and other control) of players Al-Arabi Youth Basketball Club and *used special tests and concluded the researcher* that the adoption of exercises rapid strength in the development of my skills handling Bra and shooting for youth basketball

1-1 Research Introduction and Importance

Basketball is one of the widespread games in the world recently. The nature of the game of basketball differs from many games in terms of performance, so performance is affected by this nature, as a result of the diversity of requirements and basketball is one of the mathematics that includes various motor skills similar to other sports, but requires special abilities that differ in terms of speed and strength of performanceSuch as the basic skills of receipt, patting, handling and correction, which is the base on which the preparation and building of young players is based and their building at the high level, and this is clearly highlighted through the performance in the games, and physical exercises are especially important in direct results, in the performance of basketball , whose performance is characterized by the rhythm of strong fast play Of course, this requires a high ability of the players to perform effectively and quickly in the match. As the success of the training process depends on the study of scientific foundations and their application in the correct and integrated preparation of the skills of chest handling and correction to reach the player to the high level of performance, which is characterized by the diversity of performance and the speed of correct implementation towards those changing and multiple situations and this requires the achievement of the duties of the plan by the players as the degree of achievement depends on a number of reasons, the most important of which is performance The basketball player needs to understand the complex and complex performance of the skills of handling and shooting and quick and accurate decision-making at the same time, so it has become a priority to pay attention to fast and accurate playing methods. Hence, the importance of research appears in the preparation of rapid strength exercises and their application during training programs, the rapid force is an accurate and effective combination between the force and the time of its performance, i.e. exerting strength in a quick instantaneous form that enables players to carry out the kinetic performance of the skill in the best possible way, and its weakness leads to poor skill performance and level of play and in order to support the rapid performance characterized by high accuracy, which is consistent with modern playing methods to achieve this goal.

1-2 Research problem:

The performance of modern basketball is characterized by the speed of performance and transition and the ease of transfer of balls and accuracy, as the team appears as a programmer and depends on the skills of handling and scoring, and the tactical performance can be easily performed and reach the opponent's goal and score goals. It is possible with simple guidance by the coach to change the rhythm or method of play and through the work of the researcherthat two coaches and basketball specialists noticed that most of the teams in the Iraqi Youth League The way of playing and preparing for the attack seems to be relatively slow compared to international teams, which leads to the loss of many balls and lacks a lot of accuracy when applying tactical performance and random execution. One of

the most important reasons may be the coaches' reliance on traditional training methods that are not in harmony with modern playing methods, fast play, and accurate performance in their training units, in which skills are trained and implemented quickly and forcefully.And the accuracy required to achieve these skill and tactical duties during the game, so the researchers tried to study this problem and work to develop solutions through the preparation of rapid strength exercises in developing the skills of handling the chest and shooting basketball

1.3 Research Objectives

1. Identify the effect of preparing rapid strength exercises in developing the skills of bras handling and shooting with basketball

1-4 Research hypotheses

1- There are significant differences between the pre- and post-tests of the research groups in the skills of chest handling and basketball shooting

2. There are significant differences in the results of the post-tests between the experimental and control groups in the skills of chest handling and basketball shooting.

1.5 Research areas

1-5-1 **human field** : a group of players Arab Youth Basketball Club

1-5-2 **Time Range** : Period from 6/12/2020 to 8/2/2021

1-5-3 **Spatial area** : Baghdad hall of Al-Arabi Sports Club closed. .

2- Research methodology and field procedures

2.1 Research Methodology

The experimental approach was adopted to suit the research methodology in the style of the two equivalent groups

2.2 Research community and sample

The research community was determined by the basketball players participating in the General Youth League and the number of (10) players, and they are the original community of Al-Arabi Club players.

Table (1)
Shows homogeneity in search variables

Convolution	Deviation	Broker	Middle	**Unit of measurement**	**audition**	**t**

0.046-	0.163	4.320	4.299	Tha	Bra handling speed	**1**
0.433-	0.633	3	3.357	degree	Precision of chest handling	**2**
0.258-	0.085	5.220	5.240	Tha	Aiming speed	**3**
0.192	**0.611**	**3**	**2.714**	**degree**	Aiming accuracy	**4**

After that, the researchers divided the sample into two groups (control and experimental) by lottery and become the experimental group (5) players and the control group (5) players and conduct researcher parity

Table (2)

Shows the equivalence of the control and experimental groups in the variables studied

Statistical significance	Value Probability	Calculated T	Experimental Group		Control group		Unit of measurement	audition
			± on	Q-	± on	Q-		
Immoral	0.690	0.408	0.169	4.275	0.165	4.322	Tha	Handling speed
Immoral	0.609	0.525	0.534	3.428	0.755	3.285	degree	Handling accura
Immoral	0.403	0.866	0.088	5.241	0.089	5.240	Tha	Aiming speed
Immoral	**0.977**	**0.030**	**0.534**	**2.571**	**0.690**	**2.857**	**degree**	Aiming accurac

. At a degree of freedom (8) significant at a percentage error less or equal to (0.05)

2.3 Means of collecting information, devices and tools used

2.3.1 Means of gathering information

- Arab and foreign sources
- Observation and Workout
- Personal Interviews
- Tests & Measurement

2.3.2 Devices and tools used

- American Made HP Laptop
- Metal tape measure
- Signs
- Basketball (5)

- Stopwatch
- Football Goals

2-3-3 Measurement & Testing

1- Test of handling speed and accuracy on overlapping squares (modified) (Ismail 1: 117)

2- **Objective of the test :** to measure the speed of the motor response and the accuracy of handling on overlapping squares.

Tools used: leather tape, 5 basketball, whistle, stopwatch, 2 camera , registration form, random aiming device, digital camera to measure response time, 4 pieces of plastics drawn with three overlapping squares, dimensions of overlapping squares respectively (30-60-90) cm

How to perform: The player stands behind a line away from (14) m from the targets. The player begins to move by running and patting the ball forward and when passing in front of the random shooting device, which in turn is away (12) m from the target and when hearing a certain number he must lead the handling to the middle of the mentioned number and as soon as possible before passing the line of 10 m, either the second attempt is rolling from behind the line of 12 and when reaching the device random shot A sound is issued with a certain number and in a non-sequential (random) manner and the player must handle as soon as possible before crossing the ball line of 8 m and so on for the third attempt, which is performed from behind the line of 10 m and the device on the line of 8 m and is handled from the line of 6 m.

Registration: The player is given 3 when the ball hits the middle of the small square and two points when the ball is in the next box and one point in the big and last square, and no point is recorded when it is outside the overlapping box mentioned by the device, but the time is recorded through the side imaging of the player and extracted by a program in the calculator (Kinovea), where 1/1000 is measured of the second . Three attempts are given and the result is extracted through

the law of the modified Fets total points / total time or total time. where the unit of measurement is degrees / s .

Test of aiming speed and accuracy (modified) (Ismail 1:107)

Scoring speed and accuracy at the four corners of the goal of rolling.

Objective of the test: to measure the speed of motor response and the accuracy of scoring from rolling.

Tools used: basketball goal, leather tape, basketball number (5), whistle, camera number (2), colored adhesive, plastics divided into several sections, each section has a specific number, where the largest number is at the far corner. As well as the use of a digital camera to measure the speed of response to the player, random shooting device.

Method or description of performance: The player stands 18 m from the goal and at the signal he starts forward with the ball and when he reaches the random shooting device, which is 15 m away from the target, the device issues a sound with a certain number out of four numbers randomly (1,2,3,4) and the player must aim the ball to the number mentioned directly at the farthest angle before crossing the ball line of 14 m and after the performance of that attempt for all players and sequentially lead the second attempt from behind the line The 16 m where the device is converted to a distance away from the target 15 m and when the signal leads the player rolling and when reaching the device the device issues a sound with a certain number of the four numbers randomly also and the player to aim the ball to the number mentioned in the far corner, and after the performance of all players the second attempt and lead each player three attempts.

How to score : Score for the player 5 points when shooting directly after the point of free throw and 4 points when shooting in the free throw area and 3 points when shooting from the bottom of the goal and 2 points when hit with the board and

rebound and one point when rotating on the ring and entry, and when not hit any of those divisions record him zero in addition to that when hitting the target in the other part of it is the number mentioned is given zero, because the purpose of it is to score to the vacuum area When the target protector is located on the far side of that angle, which is a simulation of the state of play as much as possible. .

In terms of time, it is extracted from the digital camera film through the program (Kinovia) placed on the computer, where it is calculated in 1/ 1000 of a second.

Note: The time for the three attempts is calculated through the distance between the device and the scoring line, which is 2 m for all attempts, then the total scores for the three attempts are calculated divided into the total times for the three attempts also through the amended FTS law, which provides for [1].

2.4Field research procedures

2.4.1 The first exploratory experiment: The exploratory experiment was conducted on 6/12/2020 on a sample of (2) players who were randomly selected from the research community, and the aim of this experiment was to conduct scientific transactions for the two modified tests for open football and to know the readiness of the assistant work team Knowing the problems and difficulties facing the researcher when applying the tests

The second exploratory experiment: The exploratory experiment was conducted on 8 /12/2020 on a sample of (2) players who were randomly selected from the research community, and the aim of this experiment was to conduct scientific transactions for the two modified tests for open football

2.5 Scientific transactions of tests:

2.5.1 Honesty: The researchers will use virtual honesty by distributing the two test forms to a group of (7) experts and all experts have agreed

2.5.1 Stability: The tests were applied to the sample where the second tests were performed at the time of the first tests and in the same place to achieve the same conditions. After processing the results statistically using the simple correlation coefficient (Pearson), it appeared that the values calculated in the test of speed and accuracy of thoracic handling (0.936) and speed and accuracyof the basketball correction (0.912), all of which were significant less than 0.05.

2.6 Pre-tests

The pre-tests were conducted on the research group with the help of the assistant work team on Saturday 10/12/2020 in Al-Zawraa Club Hall

2.7 Main experience

The researchers conducted the main experiment on Tuesday (12/12/2020) and completed it on Wednesday on (7/2/2021) for a period of (8) weeks, rapid strength exercises were applied during two units of team training per week to train the strength element (Sunday, Thursday) during the main part of the training, and the number of training units in the main experiment reached (16) training units, and the researchers worked within the main section with a time ranging between (20-50) minutes from the time of the main section to train the team The use of rapid performance for a short time in the development of strength characteristic of speed and the performance time is for several seconds (between 1-15 seconds) and training through weights and exercises of the moltingham device and use. Barriers . And the stairs Backlash jogging and plyometric exercises Deep jump and the continuation of the exercise for periods that do not lead to muscle fatigue and the use of intervals according to the intensity of the exercise

Table (4)

Shows the working system and the type of resistance

Speed of motor performance	Comfort	Iteration	Resistance Intensity	Resistance Type	Labor system
80- 90%	120-180 seconds	1-8 seconds	30%-80%	Weight	Regular dumbbells
80-90%	120-150 seconds	2-12 seconds	10%-70%	Weight	Moltjm device
90-100%	90-120 seconds	8-4 seconds	50%-100%	Box height + barrier	Boxes and barriers
90-95%	60-90 seconds	6-12 seconds	2.5%-20%	Body weight + weights	1- Free jumping. Sprinting. Stairs Backflow Jogging

- Quick strength exercises were applied to the experimental group in the special preparation period.

- Control group: This group will use the exercise system followed by the team coach.

2.8 Post-tests

The post-tests were conducted on the research sample on Monday (9/2/2020), taking into account the same conditions related to the pre-tests .

2.9 Statistical Methods

Use statistical means for the social sciences (SPSS) to extract statistical results.

- Arithmetic mean
- Broker
- Torsion coefficient
- Standard deviation
- Test (T) to indicate the differences between the averages of the associated samples
- Test (T) to indicate the differences between the averages of unrelated samples

3- Presentation, analysis and discussion of results:

3-1 Presentation and analysis of the results of the control sample.

Table (3) shows

Arithmetic means, standard deviations, differences and calculated t-value for the control group in the search in the pre- and post-tests.

Significance	Error level	Calculated t-value	p f	P	Post-Test		Pre-test		Unit of measurement	Variables
					on	Going to	on	Going to		
Moral	**0.005**	**4.382**	0.690	1.142	0.165	4.242	0.755	3.285	degree	Handling accu
Moral	**0.001**	**6.584**	0.032	0.080	0.786	4.428	0.165	4.322	Tha	Handling sp
Moral	**0.030**	**2.828**	0.534	0.571	0.786	3.428	**0.690**	**2.857**	**degree**	Aiming accu
Moral	**0.000**	**8.00**	**0.026**	**0.0800**	**0.073**	**5.160**	0.089	5.240	Tha	Aiming sp

At a degree of freedom (7) and a level of error (0.05)

3.2 Presentation and analysis of the results of the experimental sample.

Table (4) shows

Arithmetic means, standard deviations, differences and t-value calculated for the experimental group in the research in the pre- and post-tests.

Significance	Error level	Calculated t-value	p f	P	Post-Test		Pre-test		Unit of measurement	Variables
					on	Going to	on	Going to		
Moral	**0.000**	**9.500**	0.755	2.714	0.690	6.142	0.534	3.428	degree	Handling accu
Moral	**0.002**	**4.991**	0.105	0.198	0.079	4.077	0.169	4.275	Tha	Handling sp

Moral	**0.000**	**13.00**	0.377	1.857	0.534	4.428	**0.534**	**2.571**	**degre e**	Scoring accu
Moral	**0.000**	**10.376**	**0.042**	**0.168**	**0.058**	**5.072**	0.088	5.241	Tha	Scoring sp

At a degree of freedom (7) and a level of error (0.05)

3-3 Presentation of differences between the results of the control and experimental groups in the post-tests

Table (5)
Shows the differences of the control and experimental groups in the variables studied

Statistical significance	Value Probability	Calculated T	Experimental Group		Control group		Unit of measurement	audi
			± on	Q-	± on	Q-		
Moral	0.001	4.334	0.690	6.142	0.786	4.428	Tha	Handling a
Moral	0.034	2.394	0.079	4.077	0.165	4.242	degree	Handling s
Willy-nilly	0.017	2.782	0.534	4.428	0.786	3.428	Tha	Scoring a
Moral	**0.031**	**2.450**	**0.058**	**5.072**	**0.073**	**5.160**	**degree**	Scoring sp

. At a degree of freedom (14) moral at a percentage error less or equal to (0.05)

3-4 Discussion of the differences between the results of the control and experimental groups in the post-tests

The results of the previous tables showed the extent of improvement in the speed and accuracy of the skills of chest handling and shooting basketball through a comparison with the control group in the post-test, in order to achieve the hypothesis of the research. Which made the development of the level of members of the experimental group fast and effective in the results of this test, which is an indicator of the growth of strength and speed prominently, as the effectiveness of weight exercises, plyometric and jumping relied on the integration of the ability of muscular strength and motor speed in one exercise and scientifically and thoughtfully, which worked to develop rapid strength, and that development indicates good Consistency between the performance time and the quality of performance and non-conflict as the training in this method allows to achieve high speed and thus helps to output the largest possible amount of rapid force as it is "the speed of mobilization of the largest number of muscle fibers at the beginning of the movement of important characteristics for the development of rapid strength" (Abu Al-Ela: 2: 134), in addition to that the quality of exercise has a direct impact on the development of the level of explosive power and speed Through the formation of these exercises by integrating the elements of strength and speed together in the exercise, i.e. performing strength exercises at high speed, as indicated by (Qasim Hassan Hussein) (that the strength increases the shorter the period of muscle contraction and vice versa, the longer the period of muscle contraction, the more the amount of force changes, that is, the greater the strength, the faster the speed can be increased " (Qasim: 3: 107..

As well as the use of a variety of different types of stimuli, training on scoring and rolling handling with no emphasis on time significantly and multiple exercises and from different distances leads to increased concentration and installation of motor programs and activation and improve motor control and then increase experience and all of this is in the development of the level of accuracy confirms (Mohammed Abdullah Hazza and Mukhtar Ahmed) that scoring "is not a skill in itself, but the final outcome of a set of overlapping skills, as the performance of basic skills such as suppression If handling is a means to reach the opponent's goal, then scoring is the end of this handling" (Muhammad and Mukhtar 4: 204). This was evident in the results of the post-tests and the results were logical

4- Conclusions and recommendations:

4.1 Conclusions:

1- The adoption of rapid strength training works to develop the accuracy of shooting in basketball among young club players.
2- The adoption of rapid strength exercises works to develop the speed of shooting basketball among young club players.
3- The adoption of rapid strength training improves the accuracy of basketball vest handling among young club players.
4- The adoption of rapid strength training improves the speed of bra-handling in basketball among young club players.

4.2 Recommendations and proposals:

1- The need to adopt rapid strength training in basketball among young club players
2- Emphasis on the development of complex and varied exercises to develop physical abilities that can be used in line with the type of sample.
3- The need for the study to be approved by basketball coaches
4- Conducting studies similar to this study that measure other skills such as patting and types of handling

References:

1- Ismail Qasim Jameel: The effect of special exercises using devices and tools to develop the speed of motor response and the accuracy of handling and scoring for futsal players, PhD thesis. College of Physical Education - University of Baghdad.2012

2- Abu Al-Ela Ahmed Abdel Fattah; Sports training - physiological foundations. 1st Edition: (Cairo, Dar Al-Fikr Al-Arabi, 1997),
3 - Qasim Hassan Hussein, The Science of Training in Different Ages , 1st Edition: (Amman, Dar Al-Fikr for Publishing, 1998),
4- Mohammed Abdullah Hazza and Mukhtar Ahmed, Basic Football Skills, (Oman, Gulf Voice Press, B.T.),

accessory

Sample exercises

Comfort type	Ratio of working time to rest	Total iterations in the training module	Training time	Exercise	t
Passive rest walking, flexibility exercises	1 : 4	5	20s	Deep jump exercise from the front 50 cm in 5 boxes and then roll the ball between 3 signs and scoring	1
Passive rest walking, flexibility exercises	1 : 4	4	25 s	Dbni with the vertical jump with the feet with hitting the ball with the head and when landing receiving a ball with the foot	2
Passive rest walking, flexibility exercises	1 : 4	4	10s	Side jump right 3 boxes and back left 3 boxes with each landing Receiving a ball and returning handling to the opposite side	3
Passive rest walking, flexibility exercises	1 : 4	5	20 s	Rear jump with header action, landing, receiving work, back jump and landing on 4 boxes	4

Note: All exercises are performed at high speed.