

Special exercises in the style of CROSS FIT and their effect on developing the skill of defense against shooting by jumping from within the three-point arc of basketball for the youth category

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1.1 Research introduction and its importance:

The selection of appropriate training methods is one of the factors that are given great importance in modern sports training, and among these training methods are CROSS FIT exercises, which is a method that increases the individual's physical fitness and increases the strength of the body's muscles in addition to determining the shape of the body's muscles and improving their work from In all respects, in order to keep pace with the development witnessed by the game of basketball and the expansion of its base and its spread in most countries of the world, including Iraq, and because this game contains a wonderful mix of skills, this game requires the skill of carrying out offensive operations and returning with the same efficiency to defense, and there is no doubt that the moves inside the stadium Basketball is continuous from all players to achieve a good attack, as the rapid change of playing positions requires the high physical ability to move, move and respond quickly. Here lies the importance of research on the effect of CROSS FIT exercises in the defensive skills under study that contribute to the performance of these skills as they are included Exercises that help develop them while playing.

1.2 Research Problem:

Through the researchers watching the basketball game, they noticed that there is a decrease in the defensive skills of basketball players, especially at the end of each half, which the researchers attribute to a decrease in some of the physical abilities and defensive skills of basketball players.

1.3 Research Objectives:

- 1- Preparing cross-training exercises for young basketball players.
- 2- Recognizing the effect of CROSS FIT exercises in developing defense against shooting by jumping from within the three-point arc of young basketball players.

1.4 hypothesis of research:

There are statistically significant differences between the pre and posttests of defense skill against shooting by jumping from within an arc of three points.

1.5 Fields of Research:

- **The human field:** Lines Sports Club players for the 2019/2020 season.
- **The temporal field:** for the period from (1/9/2019) to (11/14/2019).
- **Spatial fields :** Al-Karkh's first breeding hall.

2 Research methodology and field procedures:

2.1 Research Methodology:

The two researchers chose the experimental approach because it fits the nature of the problem to be studied, and because it fulfills the objectives and assumptions of the research, as the experimental method is “proving hypotheses through experimentation”¹ and with the method of one group².

2.2 Research community and sample:

¹Khairuddin Ali Owais; Scientific Research Handbook: (Cairo, Arab Thought House for Printing and Publishing, 1999) p. 125

²WajihMahjoub; Methods and Methods of Scientific Research: (Baghdad, Dar Al-Hikma Printing and Publishing, 1993) p. 346.

The selection of the sample is one of the main pillars of scientific research, as it “represents the community of origin or the model on which the researcher conducts the whole and the focus of his work on it”³.

The two researchers identified the research community for the Baghdad Basketball League players who numbered (6) clubs, and its sample was from the youth category. The sample was chosen by an intentional method that included the athletes of the Rabat Lines Basketball Club who represent the research community of (12) players.

2.3 Information collection methods:

Arab and foreign sources and references, skill tests, a form to record data, a form to dump data.

2.4 devices and tools used in the study:

- (Kettelbell) 4kg ball.
- Medicine balls, ball weighing 8kg.
- 3 electronic stopwatch.
- 10 legal basketball.
- A legal basketball court.
- 20m leather tape measure.
- GNMPS BOX) various sizes height of 20cm and 30cm.

2.5 Test the skill of defense against shooting by jumping from within the three-point arc. ⁴

Test purpose:

Measuring the player's ability to cut, disperse, or remove the ball during correction by the attacker

Tools :

Playground - Basketball - Landmarks - Stop Watch - Shooting Board.

³WajihMahjoub; Methods and methods of scientific research in mathematical education. 3rd Edition: (Baghdad, Dar Al-Hikma Printing and Publishing, 1993) p. 181.

⁴Ali Sumum Al-Fartousi: Building and codifying defense tests against peaceful correction and correction from jumping for young players with basketball. Al-Mustansiriya University, published research. In the Helwan University Conference and the University of Baghdad Conference, 2015 pp. 8, 10.

Performance method:

- 1- The examiner places floor marks in the centers of the five attacking players, as the defending player is 5 m away from the basket.
- 2- The defending player starts off from mark (5), heading to mark (4), then makes the combined defensive stand of the shooter in position (4), then moves to mark No. (5), then moves to mark No. (1) and then moves to mark No. (2) Then he moves to the mark No. (3), taking each time the defensive position and the correct defensive position against the shooter in the previous positions, as in figure (18).

Score Calculation Method:

- 1- Each player is awarded 3 scoring attempts from each position.
- 2- Two points if the ball is caught.
- 3- One point if the ball is removed after it leaves the attacker's hand.
- 4- Zero when the ball leaves the attacking player's hand and does not reach the defender's basket, and if the defender fouls.

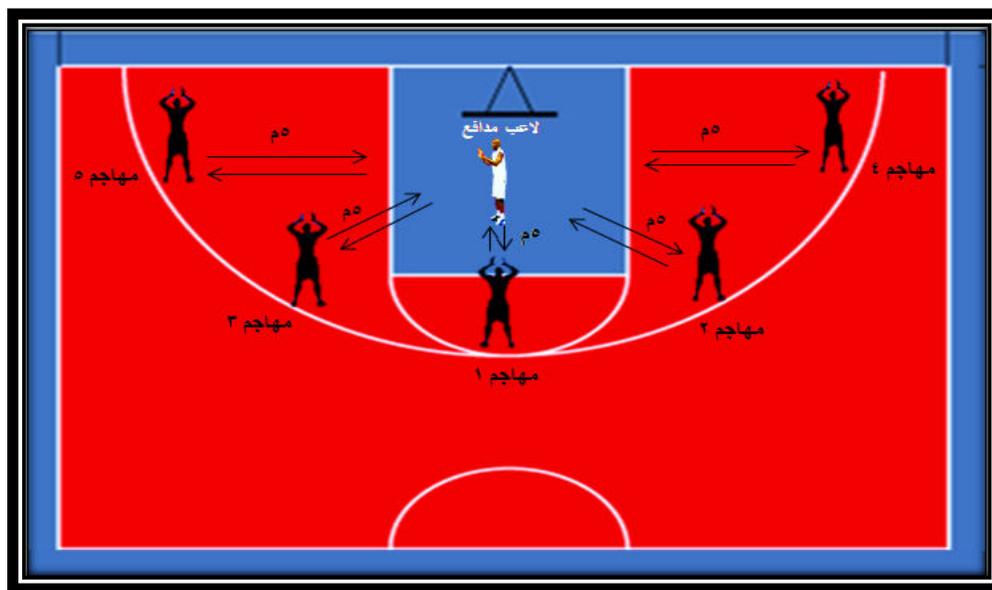


Figure (1) shows the test of defense against shooting from jumping inside the three-point arc (*)

3.6 Exploratory Experience

3.6.1 The first exploratory experience:

The exploratory experiment was conducted on Sunday, 9/1/2019 at (4) in the afternoon in the first Al-Karkh education hall. The experiment was conducted on a sample of the (2) youth lines club players from outside the research sample, and the researcher obtained a number of points to be followed During the main experiment to facilitate the scientific physical and skill tests, the aim of the experiment was the following:-

- 1- Determine the exact location of the signs during the skill test.
- 2- Know the time spent during the test.
- 3- Training the assisting work team on the test and ensuring that the locations assigned to both the recorder and the timer are taken. The researcher concluded through this experience that the players must be committed to the instructions for the test in order to reach accurate results during the test.

3.7 Research procedures:

3.7.1 Pre-tests for the research sample:

The pre-test was conducted on Monday, 9/2/2019 at (4) in the afternoon in the first Karkh Education Hall, for the skill tests for defense against shooting from jumping inside the three-point arc, during which the tests were conducted on the research sample after all devices and tools were put in their specified place. Previously in the pilot experiment.

3.7.2 Main Experience:

Main experience:

The researcher, along with the supervisor, set up training modules in the style of (CROSS FIT) exercises to develop defense skills, which will include the main experience

- ❖ The total training period is (8) eight weeks
- ❖ The total number of training units (24 training units)
- ❖ Number of weekly training units (three units)

Weekly training days (Sunday, Tuesday, Thursday)

3.7.3 Exercises Used:

The CROSS FIT exercises that the researchers used were implemented by the team coach and under the direct supervision of the researchers. The time for applying the exercises from the main part of the training unit ranges between (30-35) minutes, which are:

- 1- Resistance ropes climbing exercise
- 2- Roads on the tire))
- 3- Turn of frame exercise
- 4- Squat exercises with jumping in the air
- 5- shoulder exercises fit bell
- 6- Double-Knee Strike
- 7- Wall Hammer Rotation
- 8- Ball exercises of different weights
- 9- resistance ropes exercises:
 - Biceps wave
 - Lying T
 - Lateral whip
- 10- Box Jumps: 5 reps in 20 seconds
- 11- Kettlebell exercise 5 reps in 30 seconds
- 12- Barbell Deadlift) 5 repetitions in 10 reps
- 13- Air squats exercise
- 14- Ab serum exercise
- 15- Bell-Up exercise
- 16- Thruster exercise
- 17- Exercise Medicine Ball Clin

3.7.4 Dimensional Tests:

Dimensional tests of the skill of defense against shooting by jumping from inside the three-point arc were conducted after the completion of the implementation of the CROSS FIT exercises on Sunday 3/11/2019 at (4) in the afternoon in Al-Karkh's first breeding hall.

3.8 statistical methods:

The researcher used the appropriate statistical methods to solve and collect the data, researching this by relying on the statistical package which is (SPSS).

4. Presentation, analysis and discussion of results:

4.1 Presentation and analysis of the results of the skill variables:

Table (1):Shows the arithmetic mean, standard deviations, and the calculated value of (t) and the significance of the correction tests for the pre and post research group.

Processors Statistic Variables	Alone Measurement	The pretest		Post test		P	P e	Values T Calculated	Sig	indication
		Q ⁻	± p	Q ⁻	± p					
Test defense against shotgun by jumping Inside the arc	Degree	0.9	0.316	1.2	0.258	0.3	0.349	2.714	0.024	mora

Significance when (Sig) > (0.05), degree of freedom (n - 1) = 12 - 1 = 11, significance level (0.05)

Table (1) in the correction test from within the bracket of three points shows that the value of the arithmetic mean of this variable in the pre-test was (0.9) and the standard deviation (0.316), while the value of the arithmetic mean in the post test of the variable itself was (1.2) and the standard deviation (0.258) As for the calculated value of T, it was (2.714), while the value of (Sig) (0.024) was less than (0.05) at an error level

(0.05) and a degree of freedom (5), and this means that the difference is significant and in favor of the post test, as shown in Figure No. (2).

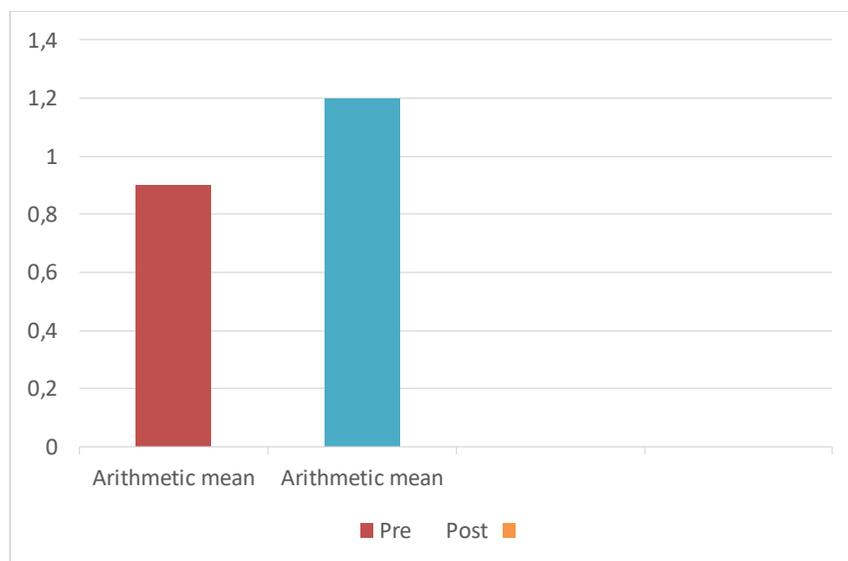


Figure No. (2) : shows the percentage of evolution of the research sample

4-2 Discussing the results:

The results showed that there is a significant difference between the pre and post tests of the research sample and in favor of the post test, and the researcher attributes that the moral difference to the test of defense against shooting from jumping from within the three-point arc to good consistency and connection in one training unit through the distribution and good division of exercises.

The main goal of every training process is to develop the level of athletes in physical abilities, which is reflected in their skill potential, and then to achieve achievement. Therefore, building the training curriculum according to the correct scientific foundations will lead to the achievement of the desired goals of training, and that the curriculum will inevitably lead to Achievement will develop if it is built on a scientific basis in organizing and programming the training process, using appropriate intensity, and noting individual differences "⁵.

The researchers attribute the reason for this to the effectiveness of the exercises used in a scientifically successful and influential way in terms of intensity and volume of training and rest according to the intensity that matches the requirements of strength characterized by speed and

⁵Saad Mohsen. The effect of training methods to develop the explosive power of the legs and arms on the accuracy of long-range shooting by jumping high in handball. PhD thesis. Baghdad University. College of Physical Education, 1996, p. 98.

which was associated with the development of the ability of nerve impulses, which is the main indicator in the occurrence of muscle contraction, which was affected by the exercises related to the development of some Physical abilities that are reflected in skill performance.

This is confirmed by (Ben Buckley, 2013) that "structured and programmed training and the use of types of intensity in training and the use of optimal rest types between repetitions lead to the development of achievement and that the process of overcoming resistance through performing a specific movement and completing it as quickly or as short a time as possible is achieved in the defense service." Against the correction by jumping from within the three-point arc "⁶. As this shows the relationship between the player's ability to produce strength and the necessary time that the player spends in training, and this leads to the extent to which strength is linked to other abilities such as speed and endurance, and by supporting the viewpoint that considers the need not to isolate the physical capabilities from each other so that benefit from that can be achieved. "⁷ Also, the use of CROSS FIT exercises works to develop endurance of speed through the introduction of excitement and suspense, and this is confirmed by (Muhammad Reda Ibrahim and Mahdi Kazem Ali), "the introduction of various exercises in the training curricula accurately in order to maintain the athlete's continuous desire to implement the requirements of arduous training. And transforming them from a state of boredom and boredom to a state of happiness, joy and enjoyment during training. "⁸ And (Nayef Mafdi, 2011) indicates that "the gradual use of exercise and its difficulty works to acclimatize the body and increase its physiological, physical and skill adaptation processes, and this in turn works to raise the level, And that the graduation in training units exercises creates a state of continuous increase in the processes of skill performance to correct and then raise the level of performance "⁹, as" the level of physical fitness rises quickly during the use of exercises Bad A new intention that the athlete is not accustomed to. "¹⁰

5. Conclusions and Recommendations:

⁶Ben Buckley; recent trends in the science of training (NJ. USA .2013)· p24.

⁷Awais Al-Jabali; Mathematical Training, Theoretical and Practice. 1st Edition: (Cairo G.M.C Printing and Publishing House, 2000), p. 373

⁸Muhammad Reda Ibrahim, Mahdi Kazem Ali; the foundations of sports training for different ages. 1 Edition: (Baghdad, Dar Diaa for Printing, 2013), p. 39.

⁹Nayef Muddy Jabour; Sports Training Physiology. Edition 1: (Amman, Arab Society Library for Publishing and Distribution, 2011), p. 213.

¹⁰Muhammad Ibrahim Shehata; Fitness Handbook. 1 2: Alexandria, The Egyptian Library for Printing, Publishing and Distribution, 2013, p. 71.

5.1 Conclusions:

1. The CROSS FIT exercises prepared by the researcher affected the development of skills to test the defense against shooting from jumping from within the three-point arc.
2. CROSS FIT exercises contributed to the development of skills to test the defense against shooting from jumping from within the three-point arc.
3. The use of (CROSS FIT) exercises has achieved an advantage in developing defense skills against correction by jumping from within the three-point arc.

5.2 Recommendations:

- 1- The necessity to prepare training curricula for the use of (CROSS FIT) training for all ages and for both genders to develop defense skills.
- 2- The necessity of conducting similar research and studies using (CROSS FIT) exercises for the youth stage, which will help in developing skills, especially for defense in basketball because of its importance in matches.
- 3- Spread cultural awareness of the necessity of practicing (CROSS FIT) training in society, as this type of training constitutes the development of young players.

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