

The impact of the small intensive training circle in the development of special endurance and the offensive skills of young basketball players

Authors: Dr. Shukri Shaker Faleh

Dr. Adel Naji Hassan

Prof. Dr. Haider Abdul Razzaq Kazem

University of Basra / College of Physical Education and Sports Sciences / Republic of Iraq

(haidar_72@yahoo.com)) 009647705604896)

2019

keywords: 1- Sports training, 2 - basketball basket, 3 - training circles, 4 - offensive basketball skills.

Abstract: Endurance is one of the most important physical qualities that a player must possess in order to maintain the same high intensity movements for not less than one hour according to the rules of basketball game. Therefore, the endurance plays a big role in the success and progress of the players. The importance of our research is the investigation and experimentation about the role of appropriate training, for choosing the right exercises to raise the level of endurance of various types, in addition to offensive skills.

The research main objectives are:

- 1 - Use the small training circle intensive to develop some types of special endurance and offensive performance of young basketball players.
- 2 – Know the differences between the results before and after the tests of the two groups (control and experiment).
- 3 - Know the differences between the results of the post-test between the control and experimental groups in the development of some types of special endurance and offensive skill performance of young basketball players.

The most important conclusion is that the exercises used and applied in the style of speed training helped to develop some types of special endurance and offensive skill performance for young basketball players.

1. Introduction

Life is flourishing with the progress of science and innovation that serve the society and raise it for the better and for the various areas important to living a decent life and wellbeing, including sports. Sports play a great role in helping people and achieving their health desires or achieving various athletic achievements for different sports.

Basketball is one of the sports that has a wonderful mix of physical and professional performance, and bring fun to its viewers and practitioners, who needs to perform physical and professional skill and special training to be able to perform duties on the field to give a distinctive performance.

Endurance is one of the most important physical qualities that a player must possess in order to maintain the same achievement within the stadium for not less than one hour according to the law of the

game. Therefore, the endurance plays a big role in the success and progress of the players in the level of performance and the player has the ability to complete the game especially in the last minutes at the same level at the beginning of the game on both sides physical or skill. Increasing performance in basketball is determined by the level of physical, psychological and specific skills (12:202).

The role of scientific research is of great importance in investigating and experimenting the role of appropriate training and selecting the right exercises in raising the level of various types of endurance in addition to the offensive performance. This gives value to our research in seeking, investigating and experimenting exercises used and based on the requirements of the game in terms of endurance to obtain players with the ability to achieve good results throughout the game, and to adapt to the requirements of the game and training. With our contribution we hope to advance the game of basketball for the better at the level of the Iraqi league.

1-2 Research Problem:

Continuing throughout the performance period of the game is very important to achieve the desired results, especially if the player has and keeps their workload level and manages fatigue. Through the experience of the humble researchers and their knowledge of the performance of the players of the club sports found their fluctuation in physical and skill level, especially in the final quarters of the game (third and fourth) and this gives an indication of the weakness of special endurance and different types, and subsequent the inability to perform at the same pace. Therefore, it was necessary to find the appropriate training and precise exercises and specialize within the chosen method to solve the problem of research and raise the level of endurance for young basketball players.

1-3 The research objectives are:

1- put a small intensive training circle to develop some types of endurance and offensive skillful performance for young basketball players.

2 - Identify the differences between the results before and after the tests of the two groups (control and experimental) in the development of some types of special endurance and offensive skill performance of young basketball players.

3 - Identify the differences between the results of the post-test between the control and experimental groups in the development of some types of special endurance and offensive skill performance of young basketball players.

1-4 Research Areas:

1.4.1 Human Field: Al-Minaa Youth Sports Club.

1.4.2 Spatial domain: Al-Mina Sports Club basketball court.

1.4.3 Time domain: The period from 2/1/2019 until 7/3/2019.

2. Research methodology and field procedures:

2.1 Research Methodology: In order to address the research problem and achieve its objectives the use of the experimental method, especially the design of the two groups (control and experiment) was considered the most appropriate. Experiment method looks

for the cause and how it occurs. The researcher deals with the variables shown in the study. There is an intentional change and control of some other relevant variables, so we study the effect on one or more variables. In other words, the study observed the causal relations between the independent variable and the dependent variable (2: 82).

2.2 Research community and sample: The research community was determined by the basketball players of Al-Minaa Youth Sports Club (15)players. The sample of the research was chosen in a deliberate way: they are the players of Al-Mina Sports Club, the youth group of (12) players. They were divided into two groups, one experimental and the other controlling, so that the number of each group (6) players and they make up (50%) of the original community. Then we homogenized and equalized the two groups as in Table (1)

Table (1)

Shows the homogeneity and equivalence of the control and experimental groups in the measurements and tests used

| measurements and tests | | Measurement | control group | | | experimental group | | | Calculated value of (t) |
|------------------------|---------------------------|-------------|---------------|-----|--------------------------|--------------------|-----|--------------------------|-------------------------|
| | | | M | S | Coefficient of variation | M | S | Coefficient of variation | |
| Training age | | Year | 5.32 | 0.7 | 13.157 | 5.9 | 0.3 | 5.084 | 1.705 |
| Length | | Cm | 177.5 | 3.1 | 1.746 | 177.3 | 3.1 | 1.748 | 0.102 |
| the weight | | Kg | 73.6 | 3.3 | 4.483 | 73.4 | 3.6 | 4.904 | 0.091 |
| Pulse at rest | | p/m | 65.1 | 1.2 | 1.843 | 65.2 | 1.3 | 1.993 | 0.126 |
| Physical | Strength of arms | No. | 44.6 | 2.4 | 5.381 | 44.7 | 2.3 | 5.145 | 0.067 |
| | Strength of legs | No. | 46.4 | 3.6 | 7.758 | 46.5 | 3.5 | 7.526 | 0.044 |
| | Bearing the speed of arms | No. | 38.8 | 2.5 | 6.443 | 38.3 | 2.6 | 6.788 | 0.309 |
| | Bearing the speed of legs | Second | 30.4 | 2.7 | 8.881 | 30.7 | 2.4 | 7.817 | 0.185 |
| Skills | Bearing scoring. | No. | 20.6 | 2.8 | 13.592 | 20.9 | 2.3 | 11.004 | 0.185 |
| | Bearing handle. | No. | 25.4 | 2.6 | 10.236 | 25.9 | 2.1 | 8.108 | 0.2 |
| | Bear the dribble | Second | 11.7 | 0.4 | 3.418 | 11.8 | 0.7 | 5.932 | 0.277 |

The value of (t) of the table at the degree of freedom (10) probability of error (0.05) = 1.812

2.3 Information gathering methods:

2.3.1 Data collection methods:

1 - Arab and foreign sources.

2. Tests and measurements used in research.

2.3.2 Instruments and tools used:

1. Electronic stopwatch (6).
- 2 - Wristwatch for pulse measurement (6).
- 3 - measuring tape length (6 meters)
- Balls for basketball (6)
- 5- Legal Stadium.
- 6 Columns (6)
- 7 - a moving wall (1)

2.4 Field research procedures:

2.4.1 Determining Search Variables:

After reviewing the sources and references according to the specificity of the research and its requirements in determining the problem of research and processing. The researchers found that physical variables (types of special endurance) and skill (endurance for individual and composite skill) under study are necessary for basketball players to achieve the results and advanced positions of the game.

The variables are:

1 - bear power to the arms. 2 - bear power to the legs. 3-bearing the speed of the arms. 4-bearing speed for the legs. 5-bearing scoring. 6- bearing handling. 7-bear dribble

2.4.2 Physical tests:

2.4.2.1 Strength tolerance test for arms (7: 236).

Purpose of the test: Measure the bearing of the muscles of the arms and shoulders.

Performance: In a sloping position, the player will bend the elbows until the ground touches the chest and then back again to the sloping position, repeating the performance as many times as possible.

Notes:

- Not allowed to stop while performing the test.
- Notes the straightness of the body during the stages of performance.
- The need to touch the chest of the earth when performing.

Scoring: The player records the number of correct attempts.

2.4.2.2 Strength endurance test for legs (7: 237).

In the standing position, the hands are twisted behind the neck and the knees are half-bent. the player jumps high to equal the horizontal rope with the feet, then get down in place and bend the knees half to the horizontal rope parallel to the seat, repeat this action as many times as possible.

Scoring: the number of correct attempts made by the player are recorded.

2.4.2.3 Arm speed test.

In an oblique position, the player will bend the elbows until it touches the ground with the chest and then back again to the oblique position, repeating the performance within 20 seconds.

Scoring: the number of correct attempts made by the player in a time (20 seconds) are recorded.

3.4.2.4 Speed-bearing test for legs (Jogging shuttle (25 mx 8) from the high start (4:83):

Draw two parallel lines with a length of (7) meters, and the distance between them (25) meters, inside the basketball court.

- Each time the two players run (25) meters are counted as one.
- The time taken by the players to complete the distance between the parallel lines back and forth (8) times or the time recorded in the distance (25 mx 8) times.

2.4.3 Skill tests (8: 61):

2.4.3.1 Performance test for basketball scoring: The player stands at the box, and when the referee starts the clock and starts to whistle, the player starts to take the ball from the box (A) The player will score three points and continue without stopping to take the ball from the box (B) For the purpose of scoring two points and then for the box (C) down the basket to score and return to the first box and so on alternately until the whistle end.

Scoring: The player's final score is the total of successful aims during the scheduled time (1.30) minutes.

2.4.3.2 Test bearing Handling Basketball: The player stand behind the handling line .when the referee whistles and starts timing The player must begin taking the ball from box (A) handles the ball and continue without stopping to take the ball from box (B) after that box(C) then box (D) and return to the first box and so on until the end whistle.

Scoring: 1 - The ball that touches the circle number (3) or its lines gives the player (3) degrees.

2 - The ball that touches the circle number (2) or its lines gives the player (2) degrees.

3 - The ball that touches the circle number (1) or its lines gives the player (1) degrees.

4- The ball that touches outside the boundaries of the circles is given a score of 0.

5. The final score for the player is the total score during the performance time (1.30 minutes).

2.4.3.3 Dribble bearing test for basketball: The player stands in one of the corners of the final line of the court and when he hears the starting signal, the player starts dribbling the ball between the cones within the first quarter of the court .Then goes to the center, from the far corner to do dribbling after that moves to the last forbidden area, from the far corner then go to the point of the beginning of the test. For three cycles the time is calculated. **Scoring:** Time calculation during three full courses.

2.4.4 Exploration Experiment on Wednesday, 2/1/2019, the researchers conducted an exploration experiment with the original research sample (Al Minaa Sports Club) for the purpose of codifying the exercises used and finding suitable training endurance in terms of intensity, size and comfort. And calculate the total time of exercises and to know the ability of players to perform and if they are suitable for their level.

2.4.5. The scientific basis of the tests: The researchers used standardized tests which have the truth, consistency and objectivity.

2.5 Field experience:

2.5.1 Previous tests: Conducted on Saturday, 9/1/2019.

2.5.2 Used training: For the purpose of increasing the special endurance of the players, a group of exercises was developed and applied according to a small intensive training circle. This is an important circle in the game of basketball because it is one of the games that require special and intensive training, especially jogging and running fast. This is an important circle in the game of basketball because it is one of the games that require special and intensive training, especially jogging and running fast. Sometimes the basketball court was first divided into two halves, second to four quarters,

The exercises in the exploration experiment were standardized in order to determine the appropriate intensity, size and comfort according to the intensity used. It was applied in the main section of training units for the trainer (Appendix 1) during the special preparation period.

The units have reached (24) training unit (small intensive training circle) at the rate of (3) units in week applied on (Sunday, Tuesday and Thursday). The training endurance components have adopted the training intensity of the exercises according to the specificity of the physical character that should be developed. The intensity ranged from 80-90. The size was based on the intensity gradient. In terms of comfort, the pulse was used as an indicator of comfort, as it reached between frequencies (120-130 pulse / minute) and between (110-120 pulse / minute). The training was implemented on 10/1/2019 and ended on 6/3/2019.

2.5.3 Subsequent tests: Was held on Saturday 7/3/2016.

2.6 Statistical Methods: The SPSS system was used to process the results statistically.

3. Display, analyze and discuss results:

3.1 Displaying the results of the previous and subsequent physical tests of the control group.

Table (2)

Shows the arithmetic average and the value of (T) calculated and tabulated of the previous and subsequent physical variables of the control group.

| The used tests | measuring unit | the arithmetic average | | The standard error | Calculated value (t) | Level of significance |
|-------------------------------|----------------|------------------------|------------|--------------------|----------------------|-----------------------|
| | | previous | subsequent | | | |
| Bear strength for arms | number | 44.6 | 45.9 | 0.43 | 3.023 | moral |
| Bear the strength of the legs | number | 46.4 | 47.6 | 0.35 | 3.428 | moral |
| Bearing the speed of arms | number | 38.8 | 39.7 | 0.57 | 1.578 | moral |
| Bear the speed of the legs | second | 30.4 | 29.1 | 0.43 | 3.023 | moral |
| Bearing scoring | number | 20.6 | 22.9 | 0.76 | 3.026 | moral |
| Bearing handling | number | 25.4 | 26.9 | 0.68 | 2.205 | moral |
| Bear the plump | second | 11.7 | 10.2 | 0.43 | 3.488 | moral |

The value of (t) in the table at a degree of freedom (5) and the probability of error (0.05) = 2.015

3.2 Display the results of physical tests (pre and post) for experimental group.

Table (3)

Shows the arithmetic average and the value of (T) calculated and tabulated of the previous and subsequent physical variables of the experimental group

| Physical tests | measuring unit | the arithmetic average | | The standard error | Calculated value (t) | Level of significance |
|-------------------------------|----------------|------------------------|------------|--------------------|----------------------|-----------------------|
| | | previous | subsequent | | | |
| Bear strength for arms | number | 44.7 | 47.1 | 0.86 | 2.79 | moral |
| Bear the strength of the legs | number | 46.5 | 49.2 | 1.4 | 1.928 | moral |
| Bearing the speed of arms | number | 38.3 | 40.3 | 0.74 | 2.702 | moral |
| Bear the speed of the legs | second | 30.7 | 27.7 | 1.21 | 2.479 | moral |
| Bearing scoring | number | 20.9 | 24.2 | 1.21 | 2.727 | moral |
| Bearing handling | number | 25.9 | 28.1 | 0.73 | 3.013 | moral |
| Bear the plump | second | 11.8 | 9.7 | 0.42 | 5 | moral |

The value of (t) in the table at a degree of freedom (5) and the probability of error (0.05) = 2.015

Note tables (2) and (3) show that the variables of the research obtained the development of both groups (control and experimental), where the calculated value (t) is greater than its tabular value and this indicates that there are significant differences between the media and for the best arithmetic mean.

The reason for the development of the physical control group in the special endurance and its different types (the strength of the arms and legs and the speed of the arms and legs) in the success of the training program carried out by the coach and explains in "practice that any training gives good results" This is confirmed by Mohammed Hassan Allawi (1986) (6: 17), and Nader Abdul Salam Al Awamari (1983) (11: 301) stated that "sports training improves both physical qualities and skill level."

The goal of training is to upgrade the physical and skillful aspects of the players in the game they are playing. This is evidence of the objective achieved by the control sample.

Marwan Abdul Majeed and Mohammed Jassim Al Yasiri (2010) (9:23) stated that "the aim of the sports training process is to reach the individual athlete to the highest level of athletic achievement in the activity in which the player specializes."

Table (4)

Shows the arithmetic average and the value of (T) calculated and tabulated of the subsequent physical variables of the experimental and controller groups

| Physical tests | measuring unit | controller | | experimental | | Calculated value (t) | Level of significance |
|-------------------------------|----------------|--------------|------|--------------|------|----------------------|-----------------------|
| | | subsequent M | S | subsequent M | S | | |
| Bear strength for arms | number | 45.9 | 0.5 | 47.1 | 0.36 | 4.363 | moral |
| Bear the strength of the legs | number | 47.6 | 0.47 | 49.2 | 0.57 | 4.848 | moral |
| Bearing the speed of arms | number | 39.7 | 0.46 | 40.3 | 0.23 | 2.608 | moral |
| Bear the speed of the legs | second | 29.1 | 0.56 | 27.7 | 0.64 | 3.684 | moral |
| Bearing scoring | number | 22.9 | 0.77 | 24.2 | 0.65 | 2.888 | moral |
| Bearing handling | number | 26.9 | 0.43 | 28.1 | 0.46 | 4.27 | moral |
| Bear the plump | second | 10.2 | 0.34 | 9.7 | 0.24 | 2.688 | moral |

The value of (t) in the table at a degree of freedom (10) and the probability of error (0.05) = 1.81

The experimental group, although it also developed in the research variables, had better results than the control, as in Table (4). The calculated value (T) was greater than the tabular value. There were significant differences in the previous tests and for the benefit of the experimental group.

The reason for the evolution of the experimental group is due to the training used as it has been effective in the development of research variables for types of endurance as well as the result of the chosen exercises and codified them scientifically and applied by the researcher according to his own method. Muhannad Abd al-Sattar (2001) (10: 89) "There is a scientific fact that must be standing then that the exercises used in the training curricula lead to the development of performance if built on the scientific basis in the organization of the training process and the use of appropriate endurance and observation of individual differences and under good training conditions And under the supervision of specialized trainers as the training programs codified and organized according to scientific foundations lead to the development of the level of physical and skill of the players".

The physical aspect was mixed with the skills in each exercise (small training circle). As a result of this planning, the development took place. Hanafi Muhammad al-Mukhtar (1998) (3: 96) "Proper planning and the choice of appropriate training enables the trainer to develop physical qualities while at the same time working on mastering the player's basic skills."

The quality of the exercise and the intensive training that is used, which depends on increasing the size of the training load with the use of different resistors such as body weight, helped to develop the strong endurance. Muhammad Qasim al-Mandalawi, Mahmoud al-Shati (1987) (5:86) "The strength of the force is the ability to work for a long time and the repetition of movement with continuous effort."

In terms of speed, the development of the experimental group was achieved due to the concentration of the speed of performance according to the times and distances specified, in addition to the number of repetitions required and according to the requirements of the game of basketball. Al Sayed Abdel Maqsoud (1991), citing (Anya Sfaxi) (1:19) "Speed is the ability of the player to maintain a level of speed equivalent to the speed of performance in competition."

4. Conclusions:

- 1 - The exercises used and applied in the intensive training circle helped to develop some types of special endurance and offensive skill performance of young basketball players.
2. Experimenting with other training circles (limited and long range) and not necessarily for the same game, may give better results to the other game as in this method that reversed its role in the basketball game.
- 3 - Characteristic physical endurance special and important in the game of basketball especially at the end of the match, depending on the results of the win or maintain the result in the case of progress at the same level.

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Annex (1)

Sample of training units

Week: First

Intensity: 80%

Training Unit (1)

Total time: 41-43 minutes

| Department | Time in minutes | Exercises | size | Rest between repetitions | Rest between groups |
|------------|-----------------|---|------|--|--|
| Main | 3.45 | 1-The basketball court is divided into two halves. Doing a light dribble to the middle, then a rapid start in the second half and a proper scoring. | 5×2 | Back the pulse (120-130) p/m (2-3) m | Back the pulse (110-120) p/m (3-4) m |
| | 4.52 | 2-The court is divided into four parts, the first and the third run fast, the second and the fourth light jog. | 8×2 | | |
| | 4.56 | 3- Go jog all the pitch and come back with a plump and scoring ball. | 4×2 | | |
| | 4.35 | 4- The court is divided diagonally, the first jog and the second plump and scoring by jumping. | 6×2 | | |