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THE EFFECT OF SPECIAL PHYSICAL EXERCISES ON DEVELOPING SOME ELEMENTS OF PHYSICAL FITNESS AND BASIC SKILLS AMONG YOUNG FEMALE BASKETBALL PLAYERS

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ABSTRACT

Research Objectives:

1- To identify the differences between the pre and post tests of the experimental group in some elements of physical fitness and basic skills of (under 18 years old, henceforth U18) young basketball players.

2- Identifying the differences between the post tests of the control and experimental research groups in some elements of physical fitness and basic skills of U18 young female basketball players.

The researchers used the experimental approach given its suitability to the nature of the research. The research sample was chosen in a deliberate manner, consisted of the players of Al-Karkh Club II who totalled (14) players in number. Two of the players were excluded, due to their participation in the pilot experiments. Thus, the research sample consisted of (12) players, which represented a percentage of (16.82%) of the research population. It was randomly divided into two groups, with each group consisted of (6) female player.

The two researchers reached the following conclusions:

1- The effectiveness of the special physical exercises prepared by the researchers for the experimental group.

2- The special physical exercises played an effective and remarkable role in some elements of physical fitness and basic skills in basketball.

The researchers recommended the following:

1- Interest in the use of various physical exercises and appropriate repetitions to develop elements of physical fitness and basic skills of basketball players.

2- Conducting similar research on different age groups according to the research variables.

1- Introducing the research:

1-1 Introduction and the importance of research:

The game of basketball is one of the team games played by many people all over the world. It comes second in popularity after the game of football. The game of basketball is one of the games that has received great attention by specialists, researchers and coaches in the field of the game and at the theoretical and applied level. Sports training is the basis on which all sports depend because the preparation of any player or player is done through the training process to develop the elements of physical fitness for players and that the development of basic skills depends on the physical elements possessed by players and that each coach has a special way of training to

take the players to an advanced level in any game. The victory of any team depends on what the players of the team have in terms of the elements of physical fitness, as well as strength characterized by speed, explosive strength, transitional speed and other elements that are related to the performance of offensive and defensive skills. The players who possess these elements are characterized from their peers in the performance of offensive and defensive skills for a period of (40) minutes of actual play and continuous trasition movements from defense to attack or vice versa and repeated jumps. This requires a high effort of fitness of the players. Hence, the importance of research stems from the preparation of special physical exercises to develop some elements of physical fitness and basic skills among U18 young basketball players.

1-2 Research Problem:

The training of the elements of physical fitness is one of the most important exercises in developing the physical and skill capabilities of players. The main goal of these exercises is to create a suitable atmosphere for the matches that have a major role in the achievement of the basketball players. The need for athletes to prepare physically appropriate to their activities made trainers and researchers stand in front of different training methods and approaches to choose the appropriate exercises for the game to develop special fitness elements.

Because the researchers are players, academics and followers of most of the young women's basketball league games, they noticed that the players lack some elements of physical fitness, including explosive strength, speed and transitional speed. This prompted the researchers to find solutions that they believe address the problem under research by preparing special exercises to develop some elements of fitness and basic skills among young basketball players under (18) years.

1-3 Research Objectives:

1- Identifying the differences between the pre and post tests of the experimental group in some elements of physical fitness and basic skills of young basketball players under the age of (18).

2- Identifying the differences between the post tests of the control and experimental research groups in some elements of physical fitness and basic skills of young female basketball players under (18) years of age.

1-4 Research Hypotheses:

1- There are statistically significant differences between the pre and post tests of the experimental group in some elements of physical fitness and basic skills for U18 young basketball players.

2- There are statistically significant differences between the post-tests of the experimental and control groups in some elements of physical fitness and basic skills for young basketball players under (18) years old.

1-5 Research Domains:

- **Human domain:** The U18 young players of Al-Karkh Al-Thani club.
- **Temporal domain:**7/7/2022 to 9/10/2022.

• **Spatial domain:**The indoor hall of Al-Karkh Club.

2- Theoretical studies and previous studies:

2-1 Theoretical studies:

Theoretical studies in this research dealt with the physical preparation of some elements of physical fitness. All of these are some of the basic skills adopted by the researchers in this study, which are (explosive strength, strength characterized by speed and transitional speed), chest pass, Change of direction dribble, and the free throw shooting.

2-2 Previous studies:

The researchers did not find previous studies for this research.

3- Research methodology and field procedures:

3-1 Research Methodology:

The researchers used the experimental approach with two tests, pre and post tests, for the experimental and control groups, due to its suitability to the nature and problem of the research.

3-2 The research community and sample:

The research community included young female players participating in the women's basketball league held in Baghdad, which consisted of (7) clubs, as shown in Table (1). Two Female players were ruled out for their participation in the pilot experiments. Thus, the research sample consisted of (12) female players, which amounted to (16.82%) of the research community. They were randomly divided into two groups, each group consisted of (6) female players.

Table (1): The research community and sample

	Research community/club	The number of female players	The percentage of the research sample for the second Karkh Club
1	Dijla University	13	16,82%
2	Ghaz Al-Shamal	16	
3	Darbandikhan	12	
4	The second Karkh	14	
5	Sulaymaniyah School	16	
6	Shahraban	12	
7	Second Rusafa	12	
Total	96		

3-3 Homogeneity and equivalence of the sample:

In order to ensure the homogeneity of the sample, the researchers carried out a homogenization procedure for the research sample as a whole in the variables of height, mass, chronological

age, and training age. This is because the value of the torsion coefficient for the variables is between ±1 as indicated in Table (2), as well as the equivalence between the two groups in a number of physical and skill tests. Table (2) displays that.

Table (2): Sample homogeneity

	Variables	p	s	Median	Coefficient Of Skewness
1	length (cm)	2,84	165,6	162	0,076
2	mass (kg)	2,22	58,4	58	0,062
3	age (years)	0,16	16,9	16,4	0,522
4	Training age (years)	0,59	4,13	3,77	0,329

Table (3): Equivalence of the research sample in a number of physical and skill tests

	Statistical parameters / the tests	Values (t) calculated	standard deviation	Arithmetic mean	Type	significance level	The result
1	0,189	1,686	0,769	5,89	female control	Transition speed (sec)	non-significant
			0,632	5,482	Experimental		
2	0,163	1,912	0,289	2,876	female control	Arms explosive strength (meter)	non-significant
			0,662	2,772	Experimental		
3	0,177	2,312	1,697	1,212	female control	The explosive strength of the two men (meters)	non-significant
			1,724	1,114	Experimental		
4	0,343	0,099	1,269	6,145	female control	Speed characterized by arms (number)	non-significant
			0,926	6,771	Experimental		
5	0,631	0,641	0,647	2,700	female control	The strength characterized by speed of the two legs (number)	non-significant
			0,762	2,922	Experimental		
6	0,343	2,931	0,746	11,640	female control	Chest pass (time)	non-significant
			0,841	11,733	Experimental		
7	0,143	2,869	0,614	12,122	female control	Change of direction dribble (time)	non-significant
			0,519	12,143	Experimental		
8	0,172	1,521	0,667	4,219	female control	free throw (time)	non-significant
			0,641	4,322	Experimental		

3-4 Devices and tools used in the research:

3-4-1 Means of data collection:

1- Tests and measures.

2- Scientific sources and references.

3-4-2 Equipment used:

1- A computer (laptop).
2- Camera.

3-4-3 Tools used:

1- An electronic device for measuring length to the nearest (1) cm and weight to the nearest (50) gm.
2- measuring tape.
3- Two (2) manual stopwatches.
4- Number of (12) signs, heights (30) cm.
5- (12) basketballs.
6- Medical balls weighing (1, 2) kg.
7- whistle.
8- (2) chairs.
9- Basketball Stadium.
10- Wooden boxes of different heights (25, 30, 35, 40).
11- A rope with a length of (4) meters.
12- Iron bar with discs (20, 25, 30) kg.
13- Gymnastics mat.
14- Flat Bing Press.

3-5 Determining a number of elements of physical fitness and basic skills in basketball:

1- **Explosive strength:** Testing the explosive strength of the arms (pushing the medical ball (3) kg in front of the chest) (Allawi & Radwan, 1994, p. 110).
Testing the explosive strength of the two legs (standing broad jump) (Omar, 2008).
2- **Strength characterized by speed:**The strength of the speed of the arms (bending and extending the arms as many repetitions as possible within (10 seconds) (Al-Harmouri, 1994, p. 193). The strength characterized by the speed of the two legs (repeated vertical jump for (7) seconds) (Abdullah, 2000, p. 45).

3- **Transition speed:** running (25m) (Farahat, 2001, p. 235).
4- **Chest pass:** Passing the ball and receiving it towards a wall from a distance of (2.70m) chest passing (Jawad, 2004, p. 177).
5- **Change direction dribbling :** Change direction dribbling between (6) back and forth signs (Abdel-Dayem & Hassanein, 1999, p. 129).
6- **Free throw shooting:**free throw test) (Al-Dewachi & Hamoudat, 1999, p. 200).

3-5-1-1 Scientific foundations of the test:

The researchers found the scientific coefficients for the specific tests (validity, reliability, and objectivity) in order to ensure their measurement.

3-5-1-1-1 Validity of the test:

The researchers measured the validity of the test by using the coefficients of the reliability of the test because there is a close relationship between reliability and validity. Internal validity is measured by "calculating the square root of the test reliability coefficient (Hassanein, 2004, p.145). The internal-validity coefficient – (Allawi & Radwan, 1998, p. 275) and here the internal-validity coefficient gives a real value and statistical significance for the validity of the test through the validity of the reliability and as shown in Table (4).

3-5-1-1-2 Test reliability:

Jawad (2004) indicates that "a test is reliable if it is reapplied to the same individuals under the same circumstances after a period of time.". (Jawad, 2004, p. 27).

The reliability coefficient was found by re-testing method and with a period of time not exceeding (7) days between the first and second test with the same test on the same sample and in similar conditions. The stability of the tests was found through the Spearman correlation relationship as in Table (4).

3-5-1-1-3 Objectivity of the test:

It is one of the important factors that must be available in a good test, which refers to "freedom from prejudice and intolerance and excluding personal factors in the judgments issued by the researcher. (Abdul-Jabbar & Ahmed, 1987, p.131). "Objectivity depends on how clear the test instructions are and according to their scores.

Table (4): the coefficients (validity, reliability and objectivity) of the tests applied to the research sample

	The tests	objectivity	Internal validity	Reliability	tabular t value	Significance level
1	Transition speed (sec)	0,89	0,86	0,82	0,532	significant
2	Arms explosive strength (meter)	0,83	0,85	0,80	0,532	significant
3	The explosive strength of the two legs (meters)	0,72	0,71	0,69	0,532	significant
4	Speed of arms (number)	0,83	0,79	0,76	0,532	significant
5	The strength characterized by speed of the two legs (number)	0,69	0,67	0,66	0,532	significant
6	Chest pass (time)	0,91	0,90	0,87	0,532	significant
7	Change of direction dribble (time)	0,91	0,88	0,82	0,532	significant
8	free throw (time)	0,72	0,68	0,61	0,532	significant

3-6 Steps of Field Procedures:

3-6-1 Pilot Experiments:

The researchers conducted two pilot experiments at different times and for different purposes on a group of female players from the research sample. The experiments were as follows:

3-6-1-1 The first pilot experiment:

The researchers with the assistant working group[1]* conducted the first pilot experiment on (2) female players from the research sample, the experiment was conducted on Thursday (7/7/2022), during which physical and skill tests were conducted, and the aim was:

1- Determining the time taken to apply the physical and skill tests.
2- Ensuring the validity of the tools that will be used in the main experiment.
3- Identifying the obstacles that accompany the main experience.

3-6-1-2 The second pilot experiment:

This experiment was conducted on Wednesday)l (6/7/2022) to apply a pilot training session to individuals from the research sample, and its purpose was to:

1- Determining the validity of the exercises used in terms of practical application.
2- Identifying the obstacles and difficulties that accompany the main experience.
3- Finding out how much time it takes to perform the exercises.
4- Emphasizing the intensity of the exercises through the appropriate repetitions and matching them with the pulse in determining the intervals of rest.

3-6-2 Pre-tests:

The physical and skill tests were conducted on (Wednesday and Thursday) (13-14/7/2022) to determine the level of some elements of physical fitness and basic skills for the research sample. The tests were conducted in the hall of Al-Karkh Sports Club.

3-6-3 Fundamentals of setting exercises:

The researchers prepared special exercise used to develop some elements of physical fitness and basic skills for young female players. The exercises began on (Saturday) (7/16/2022) until (Thursday) (9/8/2022). The exercises lasted (8) weeks, at an average of three training sessions per week, and the total number of sessions was (24).

- **Notes on the exercises used:**

-The purpose of performing exercises was research preparation.

-The exercises were carried out on days (Saturday, Tuesday, Thursday).

-The exercises lasted (24) training sessions, at a rate of (3) sessions per week.

-The researchers used the intensity of the exercises from (70-90)% to develop some elements of physical fitness and basic skills in basketball.

-The time for performing the exercises ranged from (17.36 minutes) to (26.39 minutes).

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-The researchers used the high-intensity interval training method to implement the exercises.

-The researchers used the principle of graduated training in the training sessions.

3-6-4 Post-tests:

Post-tests were conducted on (Friday, Saturday) (9-10/9/2022), after completing the exercises. The researchers followed the same method in which the pre-tests were performed.

3-7 Statistical Methods:

The researchers used the statistical package (SPSS) to process the raw results they obtained.

4- Presentation and discussion of the results:

4-1 Presentation and discussion of the results of the pre and post tests of the control group in light of the statistical data obtained. Table (5) shows these results.

Table (5): Results of t-values for pre and post tests of the control group

	Statistical parameters / The tests	Calculated t-values	Post-test		Pre-test		significance level	The result
			p	s	p	s		
1	Transition speed (sec)	2,139	0,787	5,61	0,769	5,89	0,143	non-significant
2	Arms explosive strength (meter)	0,423	0,298	2,961	0,289	2,876	0,133	non-significant
3	The explosive strength of the two men (meters)	0,431	1,699	1,432	1,432	1,697	0,672	non-significant
4	Speed of arms (number)	1,321	1,792	7,265	1,269	6,145	0,456	non-significant
5	The strength characterized by speed of the two legs (number)	1,211	0,639	3,120	0,647	2,700	0,511	non-significant
6	Chest pass (time)	2,246	0,639	11,212	0,746	11,640	0,136	non-significant
7	Change of direction dribble (time)	2,321	0,713	11,984	0,614	12,122	0,139	non-significant
8	free throw (time)	1,469	0,684	4,866	0,667	4,219	0,441	non-significant

• Significant at a significance level less than or equal to (0.05).

It can be found in Table (5) that there were no significant differences between the pre and post tests of the control group. The results of the tests did not rise to the level of significance. The researchers attribute these results to factors such as the number of inappropriate repetitions and the lack of focus on the important elements of physical fitness that serve the basic skills of

the female players. All of these led to their lack of development at the required level and did not rise to the level of significance between the pre and post tests.

Table (6): The results of the level of significance of the pre and post tests of the experimental group

	Statistical parameters / The tests	Values (t) calculated	Post-test		Pre-test		significance level	The result
			p	s	p	s		
1	Transition speed (sec)	3,206	0,581	4,863	0,632	5,482	0,007	significant
2	Arms explosive strength (meter)	1,571	0,611	3,442	0,662	2,772	0,004	significant
3	The explosive strength of the two legs (meters)	1,422	1,601	1,721	1,724	1,114	0,015	significant
4	Speed of the arms (number)	4,141	0,946	7,813	0,926	6,771	0,008	significant
5	The strength characterized by speed of the two legs (number)	3,242	0,771	3,847	0,762	2,922	0,007	significant
6	Chest pass (time)	5,656	0,833	10,623	0,841	11,733	0,002	significant
7	Change of direction dribble (time)	5,508	0,132	11,121	0,519	12,143	0,003	significant
8	free throw (time)	4,131	0,711	5,421	0,641	4,322	0,001	significant

• Significant at a significance level less than or equal to (0.05).

It can be noticed from table (6) that there are significant differences in some elements of physical fitness and basic skills of the female players. The researchers attribute this to the effectiveness of the exercises used in the main part of the training program in developing the transitional speed. This indicates the correctness of rationing the exercises used and taking into account the rules of training and the use of appropriate intensities and repetitions and rationing rest and load, which guarantees progress in the training process. Taking these constituent factors of the training program into account leads to the development of skills. This is consistent with what was indicated by (Kammash, 1999) that "the process of rationing training work properly will be accompanied by progress at the level of work of equipment and body organs and thereby developing the elements of physical fitness to achieve the best level of sports.(Kamash, 1999, p. 21).

Also taken into account is the principle of gradation in the degree of training load between training sessions as well as sessions and between weeks. This is in addition to the conditions of training transitional speed in terms of using short distances and semi-maximal intensities while giving sufficient rest periods to restore recovery. appropriate repetitions are all factors that led to the development of transitional speed. The result is also evident in the development of the explosive strength of the muscles of the arms and legs.

The researchers attribute the reason for this development to the effectiveness of the special exercises in the main part of the training session, such as the use of throwing and jumping exercises using different resistances such as body weight in jumping exercises and medical balls in throwing exercises. These in turn led to the development of muscle strength for the muscles of the arms and legs. Strength exercises increase the ability of muscles to stimulate the largest number of their cells, as indicated by (Abdul-sattar, 2005) that "The greater the involvement of a larger number of muscle cells, the greater the strength that the muscle can produce. (Al-Ani, 2005, p. 102).

The researchers believe that this development of the explosive strength of the arms and legs is to follow the correct scientific foundations in training and take into account the conditions for training the explosive strength. In order for it to develop, the explosive strength needs high intensity and the use of few repetitions and the least possible time for performance. This is what the researchers relied on as they used used high intensity and few repetitions with giving adequate rest for recovery with the correct gradation of load.

As for the development in the strength characterized by speed of the muscles of the arms and legs in the pre and post tests and the validity of the post test, the researchers attribute the reason for this development to the effect of the exercises used in the main part of the training session. They also ascribe it to the use of exercises with appropriate repetitions and sizes. The use of special physical exercises adopted by the researchers has an effective role in developing the strength characterized by speed through the use of appropriate intensities at high speed and for regulated periods of time. This led to the development of this characteristic. This is consistent with what was indicated by (Al-Hayali, 2007, p. 137) that “the strength characterized by speed consists of two characteristics, namely strength and speed, and the development of these depends on the relationship between the development of strength and the development of speed, and a high degree of muscular strength and speed is required for it to be available.

The researchers believe that the reason for the development is the nature of the exercises included in the main part of the training session, which focused on performing the largest number of repetitions within a specific period of time.

Therefore, this may be an incentive to stimulate a number of motor movements as a result of rapid muscle contractions, and this leads to the adaptation of the nervous system to employing the largest number of motor movements, which leads to the development of the speed-characterized strength of the muscles of the arms and legs. (Hussein, 1998, p. 86) mentions that “the compound effort.” of speed and strength is more effective than effort with speed alone or strength alone.

As for the development in the skills used in the research, the researchers attribute this development to the effectiveness of the special physical exercises used in the main part of the training session. The researchers attribute the development of the skill of change direction dribbling to the positive relationship between physical and skillful qualities, and that the development of speed and strength leads to the development of skillful qualities. This is consistent with what was indicated by (Ali, 2004, p 57) that "strength and speed play an important role during the performing of player's motor skill.

Also, the development in the skill of chest pass and the free throw can be attributed to the use of physical exercises and the development of physical fitness elements such as strength and

speed, which led to the development of strength and speed in the arms and legs of the players of the experimental group. This is reflected in the development of the skills of chest pass and free throw, as the use of standardized exercises is of Intensity, size and comfort that led to the development of the main working muscles on which the chest pass and free throw depend during the performance. This in turn helped to adjust the performance to the correct motor paths as well as increase the speed of performance and reduce its time. The skillful performance of any sports game depends mainly on physical preparation, especially in the capacity of muscular strength (Al-Ani, 2005, p. 92).

Table (7): the results of the level of significance of the post-tests of the two research groups

The result	Statistical parameters / the tests	Calculated t-values	Experimental		control		significance level	
			p	s	p	s		
1	Transition speed (sec)	2,845	0,581	4,863	0,787	5,61	0,032	significant
2	Arms explosive strength (meter)	3,381	0,611	3,442	0,298	2,961	0,004	significant
3	The explosive strength of the two men (meters)	2,711	1,601	1,721	1,432	1,697	0,002	significant
4	Speed of arms (number)	6,742	0,946	7,813	1,792	7,265	0,001	significant
5	The strength characterized by speed of the two legs (number)	2,936	0,771	3,847	0,639	3,120	0,033	significant
6	Chest pass (time)	4,607	0,833	10,623	0,639	11,212	0,046	significant
7	Change of direction dribble (time)	3,962	0,132	11,121	0,713	11,984	0,033	significant
8	free throw (time)	2,664	0,711	5,421	0,684	4,866	0,022	significant

• Significant at a significance level less than or equal to (0.05).

Table (7) shows that there are significant differences between the control and experimental groups and in favor of the latter in the transitional speed test. The researchers attribute this development to the effectiveness of the physical exercises used in the training program to develop some elements of physical fitness, including the transitional speed. This indicates the validity of rationing exercises, taking into account the use of Intensities, repetitions, and rationing of the rest period,. This in turn guarantees progress in the training process, as the researchers used intensity that ranged between (70-90%) to develop the transitional speed of the female players. This intensity stimulates nerve impulses, which in turn excite the white muscle cells of speed. This is consistent with Al-Hajjar's statement (2002, p. 5) that the high

intensity of speed training raises the general messages and enzymes that lead to the stimulation of the white muscle cells of the maximum speed.

The researchers also attribute this development in the transitional speed to the use of short distances and appropriate repetitions at high speeds, as the researchers used (20-30) m and (3-4) repetitions within the group with rest periods between groups lasted (3) minutes. This is sufficient to restore recovery as it ensures the return of energy compensation. This is consistent with the statement mentioned by (Hassanein & Al-Ani, 1998, p. 79) that "the best way to develop the ability to run fast is by using short distances and few repetitions".

The researchers also believe that the increase in improving the explosive strength of the muscles of the arms and legs depends on the principle of specificity in the training, and this is consistent with Abdul-Jabbar (2004, p. 48) that "the greater the involvement of more muscle cells, the greater the strength that the muscle can produce".

The researchers also believe that this development in the explosive strength of the muscles of the arms and legs can be ascribed to the physical exercises (jumping and throwing exercises) that the researchers used using body weight in jumping exercises and medicine balls in throwing exercises. This led to the development of muscle strength, as strength exercises increase the ability of the muscle to stimulate The largest possible number of muscle cells. This is indicated by (Abdel Sattar, 2005) quoting (Allawi & Abdel Fattah) that "the greater the participation of a greater number of muscle cells, the greater the strength that the muscle can produce." (Al-Ani, 2005, p. 103).

As for the strength characterized by speed, training develops the strength of the muscular and nervous systems in overcoming resistance that requires a high degree of speed of muscle contractions. This leads to the development of strength characterized by speed. The gradual increase in the weights used in training in order to obtain muscular adaptation to good weight makes the muscle more capable of coping with the new weight. This is confirmed by (Sherida, 1990, p. 156) that "weight training cannot be used without increasing weights.

The researchers also believe that the development in the speed-distinguishing strength of the muscles of the arms and legs can be attributed to the effectiveness of the special physical exercises used within the main part of the training sessions. The use of flexion and extension of the arms as well as rebound jumping performed by the experimental group and using appropriate intensity with rationing of load and rest had an impact on the development of the strength characterized by speed of the muscles of the arms and legs. In addition, the good connection between the characteristics of strength and speed that the researchers relied on in the exercises led to the development of the strength characterized by speed.

The focus of the exercises was on performing the largest number of repetitions during a specific period of time so that this would be an incentive to stimulate the largest number of motor movements as a result of rapid muscle contractions. This leads to the adaptation of the nervous system to employ the largest number of motor movements, which lead to the development of the strength characterized by speed. Also, one of the reasons for developing the strength characterized by speed in the muscles of the arms and legs is the ability of the female players to link well between the elements of strength and speed. Hussein (1998, p. 86) notes that the combined effort of speed and strength is more effective than the effort of speed alone or the same strength. In addition, raising the efficiency of neuromuscular coordination led to the

development of the strength characterized by speed in the muscles of the arms and legs. This is consistent with Abdel-Fattah (1997, p. 133) who states that "the neurological compatibility within the muscle between the cells and the neurological compatibility is one of the most important factors associated with the strength characterized by speed".

As for the development in the skills adopted in the research, the researchers argue that the reason for this development is the effectiveness of the training exercises prepared by the researchers in a scientific way, which were applied in the main part of the training sessions. The skill of change direction dribbling requires the players to perform the skill quickly and accurately with the ability to change direction smoothly and at the same time to continue in full control of the ball. The performance of this skill in repetitions over a period of time may be an incentive to stimulate a number of motor units as a result of rapid muscle contractions. This leads to the adaptation of the nervous system to employ the largest number of motor units, which leads to the development of the strength characterized by speed for the arms and legs. This, in turn, leads to the development of the skill of change direction dribbling. Moreover, the training of the qualities of strength and speed together leads to the development of the neuromuscular systems, which leads to an increase in neuromuscular compatibility needed by the skill of change direction dribbling, as pointed out by Abdel-Khaleq (1994, p. 171) that "skill performance is closely related to physical abilities, as mastery of skill performance depends on the extent to which the requirements of this performance are developed from special physical and motor abilities.

As for the skill of chest pass, the researchers believe that the development in this skill can be attributed to the performance of exercises similar to the performance of chest pass through the use of pushing medical balls in front of the chest. These exercises operate the muscles of the arms, shoulders and chest without the participation of the lower limb, i.e. without the occurrence of the movement of the lower limb to the upper limb. Thus, the training was focused on the upper limb only, which led to an adaptation in the work of the muscles through functional adaptations within the muscular spindles and Golgi tendon organs (GTOs).

Also, the reason for the development in the strength characterized by the speed of the muscles of the arms was the reason reflected by the chest pass skill test to the time of performing the exercises, which was a short time. This forced the players to work within the anaerobic energy system (ATP-CP) (phosphagen system) without accumulation of lactic acid. The rest time was sufficient for the impact of this development, as this period of time provided sufficient opportunity to recover, which helped in developing the chest pass of the female players. The development of strength characterized by the speed of the muscles of the arms helps in rapid skill development. This is consistent with the statement made by Mufti (1994, p. 22) that "the training process has multiple aspects to develop physical preparation, which in turn revolves around the skill and tactical preparation of the players".

As for the development in the free throw skill, the researchers attribute this development to the exercises implemented in the training sessions applied in the main part and the number of repetitions that the players perform during training, as well as training on the same skill. All of this led to a development in this skill as well as the development of the physical capabilities of the players through training in special exercises. This helped to adapt the muscles of the arms, which in turn leads to the development of the skill. This is consistent with Amin (1997,

p. 97) who stated that "performance of repetition and skill training leads to an increase in mastery of that skill."

Also, the development in the skill of the free throw is due to the large number of throws executed within a specific period of time, which is an incentive to stimulate the largest possible number of motor movements. This leads to the development of the skillful technique of the female players. This is consistent with Al-Shati, (2009) who notes that " Training and adapting to the performance of the exercise always leads to a better technical level.((Al-Shati, 2009).

5- Conclusions and recommendations:

5-1 Conclusions:

1- The effectiveness of the special physical exercises prepared by the researchers for the experimental group.

2- The special physical exercises played an effective and remarkable role in some elements of physical fitness and basic skills in basketball.

3- The form and type of physical exercises had a significant impact on the development of some elements of physical fitness and basic skills for the players of the experimental group.

5-2 Recommendations:

1- Interest in the use of various physical exercises and appropriate repetitions to develop elements of physical fitness and basic skills of basketball players.

2- Conducting similar research on different age groups according to the research variables.

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Physical exercises used in the research

1- Standing start running for a distance of (30) meters.
2- Vertical jump (squatting) with both feet for a certain distance.
3- Bouncing with both feet on both sides of a 25 cm high rope.
4- Ground-based jumping on a box with a height of (25) cm.
5- Jumping forward with both feet over 25 cm high barriers.
6- Rebound jumping forward on a ladder drawn on the ground for a distance of (12) m.
7- Running on four pillars placed in the form of a square, the distance between the pillars (6) m.

8- From a supine position, raise and lower a 15 kg barbell.
9- From a sitting position on the knees, roll a medicine ball weighing (1) kg.
10- Throwing a medicine ball weighing from a standing position(1) kg between two female colleagues, the distance between them is (4) m.
11- From a lying position on the ground, bend and extend the arms (press-up).

The exercises used in the main part of the training sessions
The stage of special preparation, the duration of the exercise (21,18) d
the first week

Notes	Duration of total exercise with rest	Total rest period	total exercise duration	Rest between groups	totals	Rest between repetitions	The number of repetitions	The duration of the exercise	intensity	exercise number	T
	8.54 d	8 d	54s	2 d	2	1 d	3	9th	70%	1	1
	3.30 d	3D	30 sec	1 d	3	-	-	10th	60%	3	2
	4.18 d	4 d	18th	2 d	1	1 d	3	6th	70%	7	3
	3.36 d	3D	36 sec	30 sec	3	10th	4	3th	75%	10	4

The second week, the duration of the exercise (22,12) d

Notes	Duration of total exercise with rest	Total rest period	total exercise duration	Rest between groups	totals	Rest between repetitions	The number of repetitions	The duration of the exercise	intensity	exercise number	T
	9.12 d	8 d	1 and 12 d	2 d	2	1 d	3	12th	80%	8	1
	4.15 d	3.30 d	45 sec	30 sec	3	15 sec	5	3th	60%	4	2
	5.15 d	4.30 d	45 sec	30 sec	3	15 sec	5	3th	60%	12	3
	3.30 d	3D	30 sec	1 d	3	-	-	10th	65%	3	4

The third week, the duration of the exercise (22,26) d

Notes	Duration of total exercise with rest	Total rest period	total exercise duration	Rest between groups	totals	Rest between repetitions	The number of repetitions	The duration of the exercise	intensity	exercise number	T
	9 d	8 d	1 d	2 d	2	1 d	3	10th	85%	8	1
	2.36 d	2 d	36 sec	1 d	2	-	-	12th	70%	5	2
	9.12 d	8 d	72 sec	2 d	2	1 d	3	12th	70%	2	3
	1,36 d	1 d	36 sec	36 sec	3	-	-	12th	70%	11	4

The fourth week, the duration of the exercise (20,48) d

Notes	Duration of total exercise with rest	Total rest period	total exercise duration	Rest between groups	totals	Rest between repetitions	The number of repetitions	The duration of the exercise	intensity	exercise number	T
	8.48 d	8 d	48 sec	2 d	2	1 d	3	9th	80%	1	1
	3.30 d	3D	30 sec	1 d	3	-	-	10th	70%	3	2
	3.36 d	3D	36 sec	1 d	3	-	-	12th	75%	5	3
	4,54 d	4 d	54s	30 sec	3	10th	6	3th	65%	10	4

The fifth week, the duration of the exercise (24) d

Notes	Duration of total exercise with rest	Total rest period	total exercise duration	Rest between groups	totals	Rest between repetitions	The number of repetitions	The duration of the exercise	intensity	exercise number	T
	13 d	12 d	1 d	2 d	3	1 d	3	10th	75%	2	1
	4.15 d	3,3 d	45 sec	30 sec	3	15 sec	5	3th	65%	4	2
	4.30 d	4 d	30 sec	1 d	4	-	-	10th	65%	9	3
	2.15 d	1,30 d	45 sec	30 sec	4	-	-	15 sec	80%	11	4

The sixth week, the duration of the exercise is (26.3) d

Notes	Duration of total exercise with rest	Total rest period	total exercise duration	Rest between groups	totals	Rest between repetitions	The number of repetitions	The duration of the exercise	intensity	exercise number	T
	8.36 d	8 d	36 sec	2 d	2	1 d	3	6th	85%	1	1
	8.48 d	8 d	48 sec	2 d	2	1 d	3	8th	75%	7	2
	4,24 d	3.30 d	54s	30 sec	3	10th	6	3th	75%	10	3
	4.15 d	3.30 d	45 sec	30 sec	3	15 sec	4	3th	70%	12	4

The seventh week, the duration of the exercise (23,14) d

Notes	Duration of total exercise with rest	Total rest period	total exercise duration	Rest between groups	totals	Rest between repetitions	The number of repetitions	The duration of the exercise	intensity	exercise number	T
	8.36 d	8 d	36 sec	2 d	2	1 d	3	6th	90%	1	1
	3.30 d	3D	30 sec	1 d	3	-	-	10th	75%	3	2
	4.30 d	4 d	30 sec	1 d	4	-	-	10th	75%	7	3
	6.38 d	6 d	38 sec	2 d	2	1 d	3	6th	75%	9	4

The eighth week, the duration of the exercise (26,39) d

Notes	Duration of total exercise with rest	Total rest period	total exercise duration	Rest between groups	totals	Rest between repetitions	The number of repetitions	The duration of the exercise	intensity	exercise number	T
	9.12 d	8 d	1,12 d	2 d	2	1 d	3	12th	80%	8	1
	12.48 d	12 d	48 sec	2 d	3	1 d	3	8th	80%	2	2
	2.15 d	1,30 d	45 sec	30 sec	3	-	-	15 sec	80%	11	3
	2.24 d	2 d	24 sec	30 sec	2	15 sec	4	3th	85%	4	4

The ninth week, the duration of the exercise (17,36) d

Notes	Duration of total exercise with rest	Total rest period	total exercise duration	Rest between groups	totals	Rest between repetitions	The number of repetitions	The duration of the exercise	intensity	exercise number	T
	4.30 d	4 d	30 sec	1 d	4	-	-	10th	75%	9	1
	3.36 d	3D	36 sec	1 d	3	-	-	12th	80%	5	2
	5.15 d	4.30 d	45 sec	30 sec	3	15 sec	4	3th	75%	12	3
	4.15 d	3D	36 sec	30 sec	4	10th	4	3th	85%	10	4