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The Effect of Training Using (Weightlifting - Rubber Ropes) on the Curve of Change in Muscle Ability and (VO2max) and the Ability to Recover and the Accuracy of the Skills of Chest Handling and Shooting to Jump for Young Basketball Players

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Abstract

The study aimed at identifying the extent of identifying the effect of the training methodologies (weightlifting and rubber cords) on the change curve in the development of muscle capacity and (VO2max) and the retrospective ability and accuracy of chest-handling skills and the correction of jumping for young basketball players, and the researchers adopted the experimental research method on a sample of Al-Karkh club players The youth athlete, the number of individuals in the sample reached (12) players, which were divided into two groups so that the first group is trained on weightlifting and the second rubber ropes, for the period from 11/20/2016 until 20/2/2017, and after applying physical, physiological and skill tests under consideration The implementation of the two training programs and the conducting of dimensional tests, the results of which were statistically addressed using the Statistical Bag for Social Sciences (SPSS) version (V24), the researchers concluded that it is possible to reach that the two training methodologies (weightlifting and rubber cords) on the curve of change in the development of muscle capacity and (VO2max), the ability to recover and the accuracy of the skills of chest handling and shooting to jump for young basketball players in various proportions.

Keywords: *Effect of Training, Weightlifting - Rubber Ropes, Young Basketball Players*

Introduction

Weight training for a long period of time is a subject of controversy among specialists in preparing and training players. Some of them strongly oppose weight training on the pretext that it leads to reduced motor speed, reduces the motor range of the joints and provides the degree of stiffness in the muscle, and some of them count training with weight as an objective way to develop different types of muscle strength Which

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any player badly needs and that helps in developing the physical abilities and improving the level of performance, the scientific research conducted in the field of weight training has resolved this controversy, as most of its results indicated that weight training has become one of the effective and necessary means for the development of different types of muscle strength (maximum strength - Distinguished strength in speed - bearing strength) as it has a direct and fundamental impact on the degree of development and development of all elements of comprehensive fitness as the main pillar of ability and kinetic speed (16), as weight training is not limited to its effect on the muscular system only, but extends to include the positive physiological effect on functional efficiency Like the heart, circulatory and respiratory systems (2)

One of the basic components that have a major role in developing the reality of this game and achieving positive results is the use of modern training tools and tools in developing the level of performance of basketball players, as most sports teams lack weightlifting programs and the use of rubber ropes among the things that lead to the loss of a lot of Physical and functional abilities and skills, and hence the positive results of these teams because researchers from the basketball player and through the games many training units and games, and pointed out that many players lose their skills over time, especially in the last minutes of the game because of the low physical level due to lack of interest in some Training requirements needed during a player's competition, including muscle ability, which leads to negative results in the fact that these players do not have the ability to continue to be physically qualified and highly skilled. During the match, they weakened their ability to complete their skilled duties and consequently their inability to achieve positive results and a large number of injuries in official matches.

The study aimed at the core of the yen training program which means (weight lifting - rubber ropes) to develop muscle capacity and (VO2max) retroactively, treat chest carefully and skip the skills of young basketball players. Knowing the effect of the two training programs (weight lifting - rubber ropes) on the curve of change in the growth of muscle growth and (VO2max (regenerative ability, chest handling accuracy and cross-jumping skills for young basketball players). Knowing the preference of the two training programs (weight lifting - rubber ropes) On the change curve in the development of muscle development (VO2max) recovery skills, accuracy in dealing with the chest and skipping of young basketball players, the researchers hypothesized that there were statistically significant differences between the pre and post tests of the two experimental groups and in favor of dimensional tests for research variables only, and likewise there are differences with Statistical significance in dimensional tests between the two experimental groups (weightlifting - rubber ropes) on the curve, change in development to develop muscle capacity and (VO2max) retroactively, and skills of skipping chest accuracy and excessive young basketball players

Procedures: Follow-up researchers are approaching the systematic exam, represented by a sample from Al-Karkh Sports Club, Suleikh Youth, and number of respondents (12). (The players were divided into magin to train them in body pain first in lifting weights and the second of the rubber ropes, and the researchers used the following tools- :Connect your measurement to measure scale. And the number of basketball balls 15). Weight machines (multi-purpose machine). And rubber cords. The medical ball weighs (3 kg and a psychological device).A set of physical, physiological, and skills tests was chosen as an indicator to measure the development that appears after performing the exercises used in the research, as shown in Table 1.

Table1)) Selected tests, their purpose, percentage of expert agreement and the sources they are in

Source of tests	The purpose of the measurement	measuring unit	The name of the test	No
6	The explosive strength of the arms	M	in medical ball kg 3 Throw a front of the chest	1
4 1	The explosive power of the two men	cm	Vaulting Sargent	2
4	Distinguished strength at the speed of the arms of the arms	Number	tha (10) Tightening the mind	3
5 1	Distinguished strength at the speed of the abdominal muscles	Number	Abdominal muscle ability tha (20) test	4
1	Aerobic capacity) maximum consumption(O2) VO2 max	M	minutes 5 Brixi test	5
4 1	Aerobic capacity	M	To measure (referee) Rove test the recovering power	6
12	Accuracy of direct chest handling towards the target	Drawer of	(accuracy) Chest handling test	7
6	Shooting accuracy	Number	Hopping test	8

Tribal tests were conducted: from 11/18/2016 to 11/19/2016. The main experiment was financed on the date of 11/20/2016 to 2/20/2017

Poster Tests: 2/21/2017 to 2/23/2017

The proposed exercises, if the two training programs are prepared using weightlifting and rubber ropes in the field of training, the strength and muscle capacity that basketball players need in the same direction as the muscle work during the competition, and the exercises are applied in the main section of the coach training unit for the experimental group, knowing that time The training unit ranged between 30 - 4 0 minutes. The number of training units reached (36) training units. An average of (3) training units per week. The exercises were prepared after appropriate tests, both for muscle ability and VO2max (regenerative ability and accuracy in dealing with the chest and correction skills). In light of this, the two training programs were developed using weight lifting - rubber ropes so that specialized training is directed so that the type of activity is not represented in the link of the exercise performed To the goal of the skill to be achieved.

Results and discussed

Table(2)

Indication of differences	Error level	Calculated t	PF	P-	Post-test		Pre-test		the group	Variables
					P	s-	P	s-		

moral	0.0 3	3	0.0 12	0.01	0.0 48	6.1 7	0.054	6.15	Weightlifting	Throw a 3 kg medical ball in front of the chest
moral	0.04	2. 73	0.0 8	0.01	0.0 39	6.1 7	0.044	6.16	Rubber ropes	
moral	0.0 4	2. 71	0.00 7	0.00 8	0.025	0.31	0.021	0.30	Weightlifting	Vaulting Sargent
moral	0.025	3.16	0.005	0.006	0.032	0.29	0.034	0.29	Rubber ropes	
moral	0.012	3.87	0.63	1	0.75	4.83	0.75	3.83	Weightlifting	Tightening the mind (10) tha
moral	0.012	3.87	0.63	1	0.75	5.17	0.98	4.17	Rubber ropes	
moral	0.0 4	2.71	0. 75	0. 83	1. 36	17. 67	0.75	16.83	Weightlifting	Abdominal muscle ability test (20) tha
moral	0.0 2	3.16	0.5 1	0. 66	1.16	15. 83	1.16	15.17	Rubber ropes	
moral	0.0 3	2.90	0.02	0.0 3	0.2 5	51. 27	0.24	51. 21	Weightlifting	VO2max
moral	0.01	3.62	0.022	0.033	0.25	51.27	0.24	51.24	Rubber ropes	
moral	0.0 4	2.70	0.022	0.0 2	0.23	17.3 7	0.21	17.34	Weightlifting	Rove
moral	*0.022*	*3.28*	*0.04*	*0.05*	*0.17*	*17.47*	*0.14*	*17.42*	Rubber ropes	)rufeei(
moral	0.0 1	3.87	0. 63	1	1. 32	17. 83	1.47	16.83	Weightlifting	Pectoral handling
moral	0.0 1	3. 87	0. 63	1	1.50	*17.33*	1. 63	*16.33*	Rubber ropes	
moral	0.041	2.73	0.89	1	0.54	16.50	1.04	15.50	Weightlifting	Aiming
moral	0.013	3.79	0.75	1.16	1.41	16	1.16	14.83	Rubber ropes	

A comparison between previous and subsequent tests and their importance for the two research groups (weight training - rubber cord training) in the variables under study after a month and a half of training

(*)Moral at fault level) 0.05)If the error level is ≥ of (0.05)

Table(3)

Indication of differences	Error level	Calculated t	PF	P-	Post-test		Pre-test		the group	Variables
					P	s-	P	s-		
moral	0.000	9.55	0.09	0.038	0.063	6.19	0.054	6.15	Weightlifting	Throw a 3 kg medical ball in front of the chest
moral	0.000	8.76	0.01	0.046	0048	6.21	0.044	6.16	Rubber ropes	
moral	0.000	9.77	0.01	0.055	0.02	0.36	0.021	0.30	Weightlifting	Vaulting

moral	0.000	8.03	0.01	0.038	0.037	0.32	0.034	0.29	Rubber ropes	Sargent
moral	0.003	5.27	1.47	3.16	1.54	7	0.75	3.83	Weightlifting	Tightening the mind (10) tha
moral	0.000	8.69	1.03	3.66	0.75	7.83	0.98	4.17	Rubber ropes	
moral	0.003	5.45	1.72	3.83	1.50	20.67	0.75	16.83	Weightlifting	Abdominal muscle ability test (20) tha
moral	0.002	5.85	1.67	4	1.72	19.17	1.16	15.17	Rubber ropes	
moral	0.003	5.37	0 .05	0. 11	0.27	51.33	0.24	51. 21	Weightlifting	VO2max
moral	0.000	8.23	0 .01	0.0 6	0.24	51.30	0.24	51.24	Rubber ropes	
moral	0.001	7.88	0.01	0.63	0.22	17.40	0.21	17.34	Weightlifting	Rove)rufeei(
moral	0.002	6.08	0 .04	0.1 2	0.15	17.54	0.14	17.42	Rubber ropes	
moral	0.000	9.22	0.75	2.83	1.36	19.67	1.47	16.83	Weightlifting	Pectoral handling
moral	0.001	6.63	1.16	3.16	1.97	19.50	1.63	16 .33	Rubber ropes	
moral	0.003	5.19	1.41	3	1.049	18.50	1.04	15.50	Weightlifting	Aiming
moral	0.001	7.06	1.32	3.83	1.63	18.67	1.16	14.83	Rubber ropes	

A comparison between previous and subsequent tests and their importance for the two research groups (weight training - rubber cord training) in the variables under study at the end of the training program

Table No. (4) Differences between the two experimental research groups (weight lifting exercises group and the elastic rope exercises group in all search variables in dimensions tests

Indication of differences	Error level	Values (t) Calculated	PF	P-	Rubber bands drills		Weight training package		the test
					P	s	P	s	
Is D.	0.64	0.47	0.03	0.01	0.04	6.21	0.063	6.19	Throw a 3 kg medical ball in front of the chest
Is D.	0.10	1.78	0.01	0.03	0.03	0.32	0.02	0.36	Vaulting Sargent
Is D.	0.26	1.18	0.70	0.83	0.75	7.83	1.54	7	Tightening the mind (10) tha
Is D.	0.13	1.60	0.93	1.50	1.72	19.71	1.50	20.67	Abdominal muscle ability

									test (20) tha
Is D.	0.85	0.18	0.15	0.02	0.24	51.30	0.27	51.33	VO2max
Is D.	0.24	1.22	0.10	0.13	0.15	17.54	0.22	17.40	Roverufeei
Is D.	0.86	0.17	0.98	0.16	1.97	19.50	1.36	19.67	Pectoral handling
Is D.	0.83	0.21	0.79	0.16	1.63	18.6	1.04	18.50	Aiming

(*) Degree of freedom. 10 = 2- (6 + 6)

(*)Not significant at the significance level (0.05) if the error level < **From**.(0.05)

To review the results of the mechanical skills test and the tribal dimensions of experimental Mjmo p Tin in test variables, everything showed a clear development of experimental groups Mjmo Otain who underwent training modules using (weight lifting - rubber ropes) that contributed to improving research in all variables, attributed to the evolution of physical variables to the nature of stomach exercises, where the principle of privacy is observed in training, overload, adaptation and graduation through traceable measurements, as the use of weights - elastic cords contributed better to developing muscle strength in the upper and lower extremities by strengthening the tendons, ligaments and connective tissues in the muscles, Which contributed to the development of both the momentum of the arms and raising the level of the legs, in addition to developing the ability of the abdominal muscles, which is one of the most important muscle groups because it is of great importance. Basketball during the correction process as well as the upgrade to withdraw the rebound balls, and this was confirmed by (Muhammad Reza Al-Damagha and Mahdi Kazem Al-Sudani 2013) so that "the diversity in the use of different exercises to develop muscles leads to the same muscle group strength definitely leads to a significant increase in the explosive force or the strength of this group." (13) Given that regular and prolonged training cannot improve endurance quality, this is (Kamal Abdel Hamid) and Mohamed Sobhi Hassanein noted that "the ability to repeat muscle performance is as many as possible when the actual load is on the shoulders of the average muscle load (9)

Researchers believe that the use of modern training methods (weight training - rubber ropes) is one of the most important methods that have a significant and tangible effect in developing muscle strength in all its forms because muscle strength "is a component of physical fitness. It can be developed through training, and it is one of the factors that It affects mathematical achievement and mastery of skill performance, and therefore failure to develop it properly and develop it according to the requirements of the game will lead to negative results that affect achievement and skill performance. (3)As for the development taking place in the physiological aspects of both experimental groups, the researchers attribute it to the effect of training programs that have contributed to improving physical and functional capabilities, as the programs used to develop periodic endurance and breathing through improving efficiency depend on the ability of the cardiovascular muscle and ax 2 M to work directly On the efficiency of the cardiovascular and lungs to supply muscle with energy, and the maximum consumption of O2 under the influence of muscle strength

training, and this is confirmed by previous scientific research and studies confirm the extent of the correlation between the functions of the heart, lungs, blood circulation and what the muscular system possesses in the degree of oxygen use (O2) In energy production (8).

As for development in terms of skill, this is due to the positive impact of training programs for the two groups that have contributed to the development of muscle strength and thus the development of technical performance and the improvement of movement of motor skills and improving compatibility between works. Well designed muscle groups and programs are the best, fastest and most effective method for developing and developing strength. The ability to achieve consistency, commitment, and control of body parts and make the muscles more responsive to mastering basic motor skills and their high level by responding to muscles quickly and speeding up skill movements, which are directly reflected in the speed of delegating movement to chest and target skills by jumping, where "muscle strength contributes to Achieve any type of fitness, skill, or tactical numbers in any sport." (17) From the above, it becomes clear to us that the means used, whether heavyweight (multipurpose machine) or rubber ropes are among the modern and advanced methods for improving the special muscle strength of beginners and advanced players because their work relies on the principle of privacy in training, which is similar to the path. The movement force of the major muscle groups that work during exercise with their chronology during the technical performance of the movement itself (10). The researchers see that the different weight training and resistance that aims to develop muscle strength works to improve the skill performance in terms of the movements used in weight training, whether it is It is with machines or bars or with the use of resistors represented by rubber cords, which have worked to develop strength from the muscles of the limbs with kinematic pathways similar to the technical performance of the skill, because the skill mainly depends on the degree of physical preparation, especially the strength of all types. As a result, the apparent change in the change curve appears through periodic tests that showed the progressive nature of the development that occurs in the research sample and for the two groups, where periodic tests help us to follow the progress of the level, which gives an indication of the correct cycle of the training program.

Conclusions and Applications

1. Training programs using (Weight Lifting - Rubber Ropes) led to the development of muscle growth and (VO2max) retroactively, dealing with the chest accurately and skipping the skills of young basketball players
2. At the level of the background comparison test results for the experimental samples of the research, whether the physical and physiological tests of the technology are not clear that there are statistically significant differences in favor of one of the two groups.
3. The repeated training progress used in training programs using (weights - rubber ropes) had a clear impact on the members of the research sample, as well as on the process of diversification and change between exercises that affected the increase in excitement among players.

The researchers recommend the following

1. The need to use training programs using (weights - rubber ropes) for basketball players and for all age groups.
2. The necessity of providing all sports teams and at various levels with modern training tools and tools, the most important of which are the muscle strengthening rooms equipped with modern weight lifting devices, in order to shorten the time and effort to improve the level of players during the training process.
3. Emphasizing the importance of physical strength training for the use of assistive devices that contain rubber cords, as it has become an important type of strength training when implementing vocabulary training curricula in a manner that is appropriate to the requirements of the game physically and skillfully.
4. The necessity of conducting similar research and studies using various training tools and tools to improve the physical, physiological and skills aspects of the various sporting activities.

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