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DETERMINING AND IMPROVING THE STRENGTH PHYSICAL QUALITY OF SKILLED FIELD HOCKEY PLAYERS

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ABSTRACT: - During training and competition, hockey players perform movements with different power characteristics. Long-term hockey training helps to develop the strength qualities of individual muscle groups, in particular, the shoulder girdle and arms. To determine the physical quality of strength of field hockey students through the group of exercises we suggested.

KEYWORDS: Physical training, special strength, muscle strength, sandbags, pedagogical process, training.

The purpose of the study. Determining the effectiveness of using hockey strength exercises in developing speed and accuracy of throwing in 18-20-year-old teenagers.

INTRODUCTION

Field hockey makes great demands on the physical fitness of athletes. During the competition, the players constantly perform various movements around the field at different speeds, fight for the ball with the players of the opposing team, perform various techniques. To maintain the required pace until the end of the competition, to follow the coach's tactical instructions, to avoid technical and tactical mistakes in the game, especially at the end, the hockey player should constantly train to improve his skills. need The lack of physical fitness of the players limits the tactical possibilities of the whole team's game.

LITERATURE ANALYSIS

General fitness is important for every hockey player of any age and level. General physical exercises and exercises consisting of elements of other sports are used to solve general physical fitness issues.

General development exercises provide versatile work of the main muscle groups of the entire body and help develop strength, speed, endurance, agility, flexibility, jumping ability and coordination of movements. Common developmental exercises include paired exercises; resistance exercises; exercises with stuffed balls of different weights; exercises with a rope, rubber bands, an expander; relay races with stuffed balls, carrying loads, placing objects, sports activities and more.

Special physical training is aimed at improving motor skills and making the body to withstand the maximum physical stress necessary for playing hockey. In the development and improvement of the main physical qualities of hockey players, various physical exercises specific to field hockey are used to solve special physical training problems. During the preparatory period, the main attention is paid to the development of physical qualities, because the task of this period is to acquire a sports uniform. It is necessary to maintain the achieved level of physical training during the competition.

For the correct development of physical qualities, functional loads must gradually increase, and a certain system of variable training and rest is also necessary. For each new load, the body must fully or almost completely recover from the previous load. Only in this case, training will give the desired results. Properly organized pedagogical process, medical supervision and daily routine are also important.

It is important for the coach to be able to determine the level of development of the physical qualities and changes in the body of athletes under the influence of training. This allows him to control and analyze the training process and make various adjustments and changes to develop the physical qualities of those involved in the training and improve their sportsmanship.

In order to better determine the level of development of physical qualities, a pedagogical research method is introduced, which consists of the analysis of sports results, control test data, and pedagogical observations during training and competitions. Control tests for general and special physical fitness are an important indicator of a hockey player's physical fitness and his level of fitness. The growth of physical qualities can be achieved only in conditions of continuous training. During the competition, the necessary level of development of strength, speed and endurance should be maintained with the same means as during the training period, only the special exercises, which are characteristic of special training, should be used significantly more.

It is necessary to pay serious attention to the relationship between general and special physical training, because it is characteristic for the long-term process of sports training, as well as for each of its cycles. Both of these aspects of training periods should be provided in all (preparation, competition, transition) periods, but their ratio and function may change.

Taking into account the development and physical fitness of teenagers and young men, it is necessary to pay special attention to the formation of basic physical qualities in them. Children should not be given too large tasks, especially in exercises to develop strength and endurance. Constant caution and strict medical supervision are necessary during training with young hockey players. In addition, it is necessary to develop and improve physical qualities.

Strength is one of the main athletic qualities necessary for a hockey player. During the game, a hockey player must run fast and a lot (this is impossible without strong leg muscles), throw the ball (it is difficult to do this without strong arm and wrist muscles), hit the ball (this is impossible without strength) . Shoulder girdle and arm muscles). Strength also greatly affects the speed at which various movements can be performed.

Exercises with barbells, stuffed balls and other weights work well to speed up the process of "gaining strength". If this inventory is available if not, then the exercises can be performed with the help of other objects (stones of different weights, sandbags, different weights) with the resistance of the partner.

Examples of weight-bearing exercises to develop leg muscle strength include:

1. Walking with a barbell on your shoulders (30-40% of your weight).

2. Walking from a semi-sitting position with a barbell on the shoulders (20-30% of one's own weight).

3. Lifting a barbell on your shoulders to your toes (40-50% of your own weight).

4. Lifting and lowering weights with legs on a special machine while lying down.

To increase the strength of the leg muscles, it can also be improved by performing different playing techniques with special bags of different weights.

The following exercises are useful for developing hand and wrist muscles:

1. Squeeze a small rubber ball or dynamometer rubber with your fingers.

2. Working with dumbbells (up to 5 kg) on the wrist joints of the hands.

3. Lifting and lowering the barbell (30% of own weight) from the hip to the chest.

The following exercises are recommended to develop the strength of the shoulder girdle and arm muscles:

1. Standing from the chest, bring the hands closer to the chest and move them away. (40-50% of own weight).

2. Raise and lower hands behind the head (up to 5 kg).

3. Pulling on the turnstile.

4. Raise and lower the body with the hands on the crossbar.

5. Lifting and lowering weights with hands in a standing position (up to 5 kg).

It is recommended to do three or four sets of each exercise. You should do the exercises at a moderate pace, so that, in addition to developing strength and endurance, it is necessary to get a load without harming and hindering the work of the cardiovascular and respiratory systems. After performing strength training, it is necessary to perform several exercises so that the muscles do not get used to the same weight.

There is also an isometric method of strength development, which is based on the principle of applying force to a stationary object. When performing isometric exercises, the working muscle can experience maximum tension. Through the isometric method, it is possible to maintain the level of strength training achieved during the competition.

Isometric exercises include exercises with partner resistance, exercises that move resistance from one part of the body to another, and exercises that use any immovable object as resistance.

The complex should include five or six exercises performed with maximum tension lasting 10-15 seconds. The complex takes a few minutes, including pauses for relaxation exercises. It is necessary to choose such exercises, which, by imitation, correspond to the movements of the player in performing the technique, and the movements should be used in different angles of the bending of the limbs and in different positions of the body. In this case, the position of the hockey player's hands, legs and body should be the same as when throwing the ball, but the force is applied to a stationary object through the puck.

Children and adolescents aged 11-14 should be careful with weight training. First you need to work with minimal weights, and then you should gradually increase the weights.

In field hockey training, partner resistance exercises, relay races with jumping on one and two legs, and exercises with stuffed balls should be used more. Exercises with stuffed balls not only strengthen the muscles of the arms, trunk and shoulder girdle, but also help to develop dexterity. The well-known Swedish hockey expert V. Jagbrant recommends the following set of exercises with a stuffed ball for 10 minutes:

1. Lightly catch the ball in the hands above the head. While standing, move the inflatable ball with your hands to the front of the chest and to the back of the head and in the opposite direction.

2. Throwing the ball due to the strong forward and backward movement of the body.

3. Swing back and forth while bending over, then toss the ball up and down.

4. The first player sits on the ground with his arms and legs crossed and holds the ball with his extended legs. The second player stands 2 m behind the first player. With a strong swing, the

first player throws the ball with his feet to the second player.

5. Two players lying on their stomachs, leaning on the ground with their elbows, push the ball to each other with their feet.

6. The player holds the ball with one hand, stands on slightly bent legs, and throws the ball in a discus throw due to the strong movement of the body.

7. The player holds the ball with both hands and imitates chopping wood.

9. Ball on flat hands. Circular movements of the body.

10. Lying on your back, arms stretched out with the ball. Reaching the ball with his feet.

11. Standing, feet apart. Ball over the head. Throw the ball up with straight hands. During the flight of the ball, the player sits and receives the ball in this position.

DISCUSSION

Taking into account the opinions of experts and the given exercises, we decided to determine the strength of the arm and leg muscles of field hockey players and increase the physical quality of strength.

Therefore, standing long jump, sitting on one leg, throwing a stuffed ball a long distance, and lying down with arms were used to test leg strength.

By comparing the proposed set of exercises, we were sure that after doing special strength exercises, the results of field hockey players improved, which means that we can conclude that the given exercises had a good effect.

The field hockey students of the State University of Physical Education and Sports of Uzbekistan participated in the implementation of this research.

RESULTS

Test results obtained before the study

Table 1

№	Name	Age	Standing long jump (cm)	Sitting on the right and left legs (times)	Throwing a 3 kg stuffed ball (m)	Lifting the body with hands (times)
1	Salimjonov A.A.	19	240	16/12	9,50	30
2	Tojialiyev J. A.	18	250	15/11	9,60	32
3	Ashirbayev J.K.	18	260	18/14	10,10	35
4	Kengesov S.J.	18	240	13/11	8,90	34
5	Amirkxanov E.R.	18	220	12/10	9,80	29
6	Abubakirov D.X.	18	210	13/9	10,30	26
7	Akhmedov J.X.	20	220	12/10	10,80	28
8	Komolov S.I.	19	210	13/9	10,60	31
9	Qutbiddinov X.B.	19	230	14/12	10,20	33
10	Rustamov R.Y.	18	225	11/9	8,90	24
11	Abdulhakimov A.N.	20	230	15/12	9,90	29
12	Rakhimov H.X.	19	235	12/9	10,10	27
13	Fozilov J.D.	19	240	17/15	10,50	37
14	Ismoilov D.N.	19	210	15/13	9,40	26
15	Komilov J.R.	19	230	12/10	9,60	33
16	Salimjonov O.A.	20	215	16/11	10,10	29

17	Khamitov O.G‘.	18	240	17/15	9,90	32
18	Madaminov A.N.	20	230	19/14	8,80	28
Average		**18.8**	**230**	**14,4/10,4**	**9,83**	**30,2**

We did running on the stairs with sandbags on our feet, jumping up and down on one and two legs, and sitting with dumbbells.

In order to increase arm strength, it was recommended to take a weighted dumbbell over the head to the back of the head in a standing position, take the front position again, and use the French handstand exercises.

And our next exercise, to determine the maximum number of exercises lying on the hands, it was recommended to rest 20-30 seconds in each of the pyramids from 1 to 10, and rest for 3 minutes between each pyramid. It was recommended to repeat this exercise 4 times a day for two weeks.

In the next two weeks, we will increase the number of handstand exercises from 5 to 15. It is recommended to rest 20-30 seconds in each pyramid and rest for 3 minutes between each pyramid.

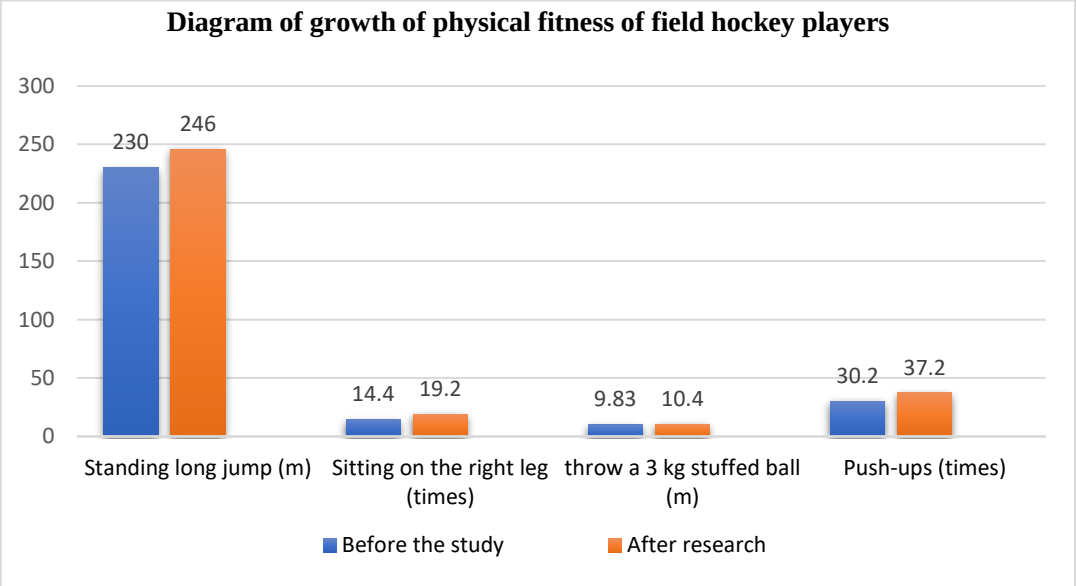
Test results obtained after the study

Table 2

№	Name	Age	Standing long jump (cm)	Sitting on the right and left legs (times)	Throwing a 3 kg stuffed ball (m)	Lifting the body with hands (times)
1	Salimjonov A.A.	19	260	20/18	10,2	36
2	Tojialiyev J. A.	18	260	18/13	10,25	38
3	Ashirbayev J.K.	18	270	21/17	10,45	41
4	Kengesov S.J.	18	250	18/15	10,10	40
5	Amirkxanov E.R.	18	240	16/13	10,50	35
6	Abubakirov D.X.	18	250	17/12	11,20	32
7	Akhmedov J.X.	20	220	16/13	11,40	36
8	Komolov S.I.	19	250	16/12	10,90	38
9	Qutbiddinov X.B.	19	245	18/14	10,70	41
10	Rustamov R.Y.	18	235	18/15	9,90	33
11	Abdulhakimov A.N.	20	245	18/15	10,40	35
12	Rakhimov H.X.	19	245	17/12	10,80	34
13	Fozilov J.D.	19	250	17/15	10,70	46
14	Ismoilov D.N.	19	230	18/12	10,30	33
15	Komilov J.R.	19	250	18/15	10,35	41

16	Salimjonov O.A.	21	230	20/16	10,25	36
17	Khamitov O.G‘.	18	255	21/17	10,40	40
18	Madaminov A.N.	20	245	23/18	9,30	35
Average		**18.8**	**246**	**19,2/14,5**	**10,4**	**37,2**

Diagram of growth of physical fitness of field hockey players



CONCLUSION

Analysis and summarization of special scientific and methodological literature on field hockey, as well as the results of our own research, showed that this problem is not sufficiently studied.

The set of exercises is based on the studied literature and due to personal experience, taking into account the age and physiological characteristics of hockey players. Complex exercises can be used in the training of young hockey players and included in the training process to develop strength qualities.

The results obtained on the basis of the experiment showed the effectiveness of the complexes developed by us for the development of the physical quality of strength and general and special strength exercises, which were confirmed by these results. During the experiment, it became clear that special strength exercises had a direct positive effect on the development of strength.

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