Impact factor: 2019: 4.679 2020: 5.015 2021: 5.436, 2022: 5.242, 2023:

6.995, 2024 7.75

UDC 796.332.063.371

## DYNAMICS OF INDICATORS OF GENERAL PHYSICAL TRAINING OF 13-15 YEAR-OLD DEFENDERS WORKING IN FOOTBALL SCHOOLS

## Kholmakhmatov Boburjon Musurmon ugli

Shakhrisabz State Pedagogical Institute Teacher of the Department of Physical Culture boburjonkholmakhmatox1995@gmail.com https://orcid.org/0009-0005-2512-4960

**Annotation:** The time when the defender's body's working capacity is at its maximum level or when he demonstrates any mode of muscle activity In the future, more and more attention is paid to the presence of general physical qualities. At the same time, attention is required to develop a number of other qualities from a football player.

**Keywords:** football, athletes, endurance, speed, agility, training exercises, general and special training, ampoule, functional defender.

Relevance of the research: Scientific research is being conducted by leading specialists around the world to organize the physical training processes of football players based on modern approaches, study mechanisms, increase the effectiveness of training, and align the qualification criteria and training processes of the football sport with the playing style of midfielders.

Research objective: Dynamics of general physical fitness indicators of 13-15-year-old defenders. Research objectives: To determine and analyze the general physical fitness of 13-15-year-old defenders according to scientific methodological literature

To determine the physical development of the experimental and control groups of 13-15-year-old defenders.

The level of general physical fitness of the defenders of the Bukhara regional sports schools at the beginning of the experiment was equal to the following results (see Table 3.3):

The results of pedagogical testing conducted to determine the dynamics of the development of speed qualities of 13-15-year-old defenders of the Bukhara regional sports schools were as follows. The average result of the control group of football players in the 60-meter dash was  $9.54\pm1.97$  seconds, the average result of the experimental group of defenders in the 60-meter dash was  $9.98\pm1.95$  seconds. When comparing the development of speed qualities of defenders of this age group, it was found that the statistical differences between the indicators were significant (p>0.05).

The results of pedagogical testing conducted to determine the dynamics of the development of agility skills of 13-15-year-old defenders of Bukhara regional sports schools were disappointing. The average result of the control group of defenders in the 4x10 m shuttle race was  $10.18\pm2.64$  seconds, the average result of the experimental group of defenders in the 4x10 m shuttle race was  $10.68\pm2.72$  seconds. When comparing the development of agility qualities of defenders at this age, it was found that the statistical differences between the indicators were significant (p>0.05). Table 3.3

Dynamics of general physical fitness indicators of 13-15 year old defenders training at the Bukhara football school at the beginning of the experiment

Impact factor: 2019: 4.679 2020: 5.015 2021: 5.436, 2022: 5.242, 2023:

6.995, 2024 7.75

| No | Ko'rsatkichlar   | NG (n-24)      | V%   | TG (n-24)      | V%   | t    | p     |
|----|--|----------------|------|----------------|------|------|-------|
| 1. | 60 m yugurish (s.)   | 9,54±1,97      | 20,6 | 9,98±1,95      | 19,5 | 1.07 | >0,05 |
| 2. | 4x10 m<br>mokisimon<br>yugurish (s.)                                     | 10,18±2,64     | 25,9 | 10,68±2,72     | 25,4 | 1,06 | >0,05 |
| 3. | 12 daqiqa yugurish (m.)  | 2381,29±372,36 | 15,6 | 2373,21±387,15 | 16,3 | 1,44 | >0,05 |
| 4. | Turgan joydan<br>uzunlikka sakrash<br>(sm.)                              | 164,31±29,15   | 17,7 | 162,27±32,28   | 19,8 | 1,28 | >0,05 |
| 5. | Toʻldirma toʻpni (2 kg.) ikkala qoʻlda bosh orqasidan oldinga otish (m.) | 8,37±2,03      | 24,2 | 7,95±2,16      | 27,1 | 1,01 | >0,05 |

Izox: NG- nszorat guruh, TG- tajriba guruh, s-soniya, sm-santimetr, m-metr

The results of pedagogical testing conducted to determine the dynamics of the development of endurance qualities of defenders aged 13-15 from Bukhara regional sports schools were disappointing. The average result of the control group of defenders in the 12-minute run was 2381.29±372.36 meters, the average result of the experimental group of players in the 12-minute run was 2373.21±387.15 meters, when comparing the development of endurance qualities of defenders at this age, the average difference between the indicators was t=1.44.

The results of pedagogical testing conducted to determine the dynamics of the development of speed and strength qualities of 13-15-year-old defenders of Bukhara regional sports schools were disappointing. The average result of the control group of defenders in the standing long jump was  $164.31\pm29.15$  centimeters, the average result of the experimental group of players in the standing long jump was  $162.27\pm32.28$  centimeters, when comparing the development of speed-strength qualities of defenders of this age, the average difference between the indicators was t=1.28.

As a logical continuation of our research, the next process was continued among 13-15-year-old defensive players. The direction began with determining the physical quality of speed. In the control group of defenders of this age, the results of 9.49±1.92 seconds in the 60 m race were shown, and in the experimental group - 9.94±1.90 seconds in the same type of exercise (Table 3.1).

Table 3.7

Dynamics of general physical fitness indicators of 13-15 year old defenders training at the Kashkadarya football school at the beginning of the experiment

| No | Ko'rsatkichlar | NG (n-22)                 |    | TG (n-22)                 | V% | 4 | n |
|----|----------------|---------------------------|----|---------------------------|----|---|---|
|    |                | $\overline{X} \pm \sigma$ | V% | $\overline{X} \pm \sigma$ |    | 1 | P |

Impact factor: 2019: 4.679 2020: 5.015 2021: 5.436, 2022: 5.242, 2023:

6.995, 2024 7.75

| 1. | 60 m yugurish, s  | 9,49±1,92      | 20,2 | 9,94±1,90      | 19,1 | 1,08 | >0,05 |
|----|---|----------------|------|----------------|------|------|-------|
| 2. | 4x10 m mokisimon yugurish, s  | 10,21±2,69     | 26,3 | 10,72±2,67     | 24,9 | 1,03 | >0,05 |
| 3. | 12 daqiqa yugurish, m   | 2368,80±493,41 | 20,8 | 2358,94±494,73 | 20,9 | 1,47 | >0,05 |
| 4. | Turgan joydan<br>uzunlikka sakrash (sm)                                 | 160,48±30,15   | 18,7 | 158,34±30,25   | 19,1 | 1,29 | >0,05 |
| 5. | Toʻldirma toʻpni (2 kg)<br>ikkala qoʻlda bosh<br>orqasidanoldinga otish | 8,31±1,97      | 23,7 | 7,85±2,04      | 25,9 | 1,08 | >0,05 |

In order to test the agility qualities of defensive football players of this age group of the region, we decided to adopt the 4x10 m shuttle run type of athletics. In this case, our control group also returned  $10.21\pm2.69$  seconds, and the experimental group returned  $10.72\pm2.67$ . The reliability of the differences showed p>0.05.

The next stage of our physical training began with determining the indicators of resistance to external resistance of 13-15-year-old defenders. In this case, we decided to take a 12-minute run type. The control group returned 2368.80±493.41 seconds, while the test subjects of the Experimental group managed to deliver 2358.94±494.73 seconds.

The period of 13-15 years is considered the most favorable period for the development of speed-strength qualities. Taking this into account, we accepted the standing long jump exercise from the defenders. While the representatives of this young control group, who showed great interest in the exercises, jumped  $160.48\pm30.15$  meters, the experimental group jumped  $158.34\pm30.25$  meters. When comparing the speed-strength quality indicators, t=1.29 was shown.

In order to clarify the strength physical qualities of the defenders, we tried to determine the strength physical qualities by throwing a 2-kg ball forward with both hands behind the head. Naturally, we started the study with the defenders of the control group. At the first stage of the study, they threw the ball  $8.31\pm1.97$  meters, while our experimental group recorded  $7.85\pm2.04$  meters (see Table 3.7).

The next step was to focus attention on the defenders of the sports school football team. We started the general physical training with a short distance 60-meter run to test speed qualities. The test subjects in the experimental group recorded a result of  $9.96\pm1.96$  seconds. Then we turned to the control group for this exercise, they spent  $9.47\pm1.95$  seconds to cover a distance of 60 m. When comparing the development of speed physical qualities, the statistical significance of the differences between the indicators was almost equal to p>0.05 in both groups at the beginning of the experiment.

Table 3.11

Dynamics of general physical training indicators of 13-15-year-old defenders training at the Surkhandarya football school at the beginning of the experiment

| №  | Ko'rsatkichlar   | $\frac{\text{NG (n-18)}}{X} \pm \sigma$ | V%   | $\frac{\text{TG (n-18)}}{X} \pm \sigma$ | V%   | t    | p     |
|----|------------------|---|------|---|------|------|-------|
| 1. | 60 m yugurish, s | 9,47±1,95                               | 20,5 | 9,96±1,96                               | 19,6 | 1,05 | >0,05 |

Impact factor: 2019: 4.679 2020: 5.015 2021: 5.436, 2022: 5.242, 2023: 6.995, 2024 7.75

| 2. | 4x10 m mokisimon yugurish, s                                      | 10,19±2,71     | 26,5 | 10,75±2,61     | 24,2 | 1,03 | >0,05 |
|----|---|----------------|------|----------------|------|------|-------|
| 3. | 12 daqiqa yugurish, m   | 2361,19±476,15 | 20,1 | 2351,92±474,35 | 20,1 | 1,28 | >0,05 |
| 4. | Turgan joydan uzunlikka sakrash (sm)                              | 159,67±30,51   | 19,1 | 157,42±30,55   | 19,4 | 1,22 | >0,05 |
| 5. | Toʻldirma toʻpni (2 kg) ikkala qoʻlda bosh orqasidanoldinga otish | 8,39±1,95      | 23,2 | 7,86±2,01      | 25,5 | 1,14 | >0,05 |

We focused our research on determining the agility physical qualities of these young defensive players. In the 4x10 m shuttle run exercise of track and field, the control group participants showed an average of 10.19±2.71 seconds. The participants in our experimental group returned 10.75±2.61 seconds. When comparing the development of agility physical qualities, we saw that at the beginning of the study, t=1.03 was equal for both.

When determining the endurance of teenage defensive players of the sports school, our creative group found a 12-minute run to be preferable. We decided to start testing with those in the experimental group. It was found that they ran an average of 2351.92±474.35 m in the specified time, while the control group participants ran an average of 2361.19±476.15 meters. When comparing the development of physical qualities of endurance, it was found that the statistical significance of the differences between the indicators was almost equal to p>0.05 in both groups at the beginning of the experiment.

Our next task in determining the speed-strength qualities of defensive players was a long jump from a standing position. During the process, the control group subjects jumped 159.67±30.51 meters, and at the end of the test, on average, 170.05±26.47 meters. The defenders of our experimental group managed to jump these indicators to 157.42±30.55 meters. When comparing the development of physical qualities of flexibility in both groups, we were convinced that at the beginning of the study, t=1.22 differed.

We decided to conduct a pedagogical testing process to determine the strength physical qualities with the exercise of throwing a 2 kg ball forward with both hands from behind the head. We started the exercise with the members of the experimental group. The defenders were able to find the strength to throw the ball  $7.86\pm2.01$  meters. The test subjects in the control group were able to throw this exercise  $8.39\pm1.95$  meters. When comparing the development of strength physical qualities in the 36 defenders in the study, it was found that the statistical significance of the differences between the indicators at the beginning of the experiment was p>0.05 (see Table 3.11).

We focused our research group on goalkeepers aged 13-15. We tried to determine their speed qualities by running a short 60 m distance. We started the study with the control group. The test subjects of this group ran for  $9.58\pm1.94$  seconds, while the experimental group members ran for an average of  $10.19\pm1.95$  seconds. When comparing the development of speed physical qualities of the members of both groups, we found that at the beginning of the study, t=1.03 differed

Impact factor: 2019: 4.679 2020: 5.015 2021: 5.436, 2022: 5.242, 2023:

6.995, 2024 7.75

(Table 3.12).

Conclusions: In Uzbekistan, in the field of football, especially in young football players, great attention is paid to the presence of special endurance qualities during the period of high potential of the body's activity and working abilities or the manifestation of various modes of muscular strength activity. In addition, football players are required to pay attention to the development of other qualities important for sports activities. When selecting exercise elements in training, it is necessary to pay special attention to the physical qualities of these defenders (speed, strength, agility, endurance, flexibility).

## References

- 1. Kholmakhmatov, Boburjon. "Age-Dependent Features of Functional Training of 13-15-Year-Old Young Footballers." Miasto Przyszlości 50 (2024): 493-496.
- 2. Boburjon, Kholmakhmatov, et al. "DEVELOPMENT OF PHYSICAL QUALITIES IN ADOLESCENTS AND CHILDREN." Educational Innovation and Integration 18.5 (2024): 220-222.
- 3. Boburjon, Kholmakhmatov and others. "ATHLETICS AND THEIR RULES." Educational Innovation and Integration 18.6 (2024): 68-70.
- 4. Dilshod Gayrat son, Kenjayev. "Gymnastic Exercises for Physical Preparation in Production Facilities." International Journal on Orange Technologies 3.7: 54-56.
- 5. Boburjon, Kholmakhmatov, et al. "MEDICAL AND PEDAGOGICAL CONTROL OF THE PHYSICAL DEVELOPMENT OF PRESCHOOL CHILDREN." Educational Innovation and Integration 17.2 (2024): 16-20.
- 6. Boburjon, Kholmakhmatov and others. "THE ROLE AND IMPORTANCE OF DEVELOPING PHYSICAL EDUCATION AND SPORTS IN OUR COUNTRY." Educational Innovation and Integration 18.1 (2024): 120-123.
- 7. Boburjon, Kholmakhmatov, et al. "DEVELOPMENT OF PHYSICAL QUALITIES IN ADOLESCENTS AND CHILDREN." Educational Innovation and Integration 18.5 (2024): 220-222.
- 8. Boburjon, Kholmakhmatov. "INVOLVING SCHOOL-AGE CHILDREN TO VOLLEYBALL SPORTS IN UZBEKISTAN." Journal of new century innovations 44.2 (2024): 149-154.
- 9. Boburjon, Kholmakhmatov and others. "ATHLETICS AND THEIR RULES." Educational Innovation and Integration 18.6 (2024): 68-70.