

## SPECIAL PHYSICAL FITNESS DYNAMICS OF 15-16-YEAR-OLD TAEKWONDO WTF BOYS ARE IN TRAINING GROUP

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**Abstract:** On the basis of pedagogical experience, the efficiency of specific exercises targeted at the development of special physical training and technical-tactical training of 15-16-year-old taekwondo players enrolled in specialist sports schools was investigated in this research.

**Keywords:** physical training, physical qualities, technical tactical training, physical development.

## ДИНАМИКА СПЕЦИАЛЬНОЙ ФИЗИЧЕСКОЙ ПОДГОТОВКИ ЮНОШЕЙ ТХЭКВОНДО 15-16 ЛЕТ В ТРЕНИРОВОЧНОЙ ГРУППЕ

**Аннотация:** На основе педагогического опыта исследована эффективность специальных упражнений, направленных на развитие специальной физической подготовки и технико-тактической подготовки тхэквондистов 15-16 лет, обучающихся в специализированных спортивных школах.

**Ключевые слова:** физическая подготовка, физические качества, технико-тактическая подготовка, физическое развитие.

### RELEVANCE

At the moment, the global attention devoted to Taekwondo (WTF) and the fact that this sport has grown popular on a global scale suggest that Taekwondo is a high-level sport. It is not an exaggeration to claim that Resolution No. PQ-3031 of June 3, 2017 "On measures for the further development of physical education and mass sports" contributed significantly to the advancement of the sport of taekwondo.

Many scientists have undertaken studies in order to increase the physical condition of young taekwondo players and to eradicate their flaws and deficiencies. Experts such as R.D. Khalmukhamedov, S.S. Tajibayev, G.B. Abdurasulova, Sh.N. Nuriddinova, B.Sh. Rakhmatov, and many others believe that substantial attention should be made to the development of all physical traits and talents beginning with primary school.

Taekwondo may take different forms depending on the physical fitness indicators, technical tactical preparation, training venue, conditions, individual conditions of the athletes and the coach's training methods.

The degrees of physical condition of young taekwondo athletes, as well as correctly comprehended tasks, are essential for attaining good outcomes. One of the primary purposes of our research is to define the general categorization of the data gained during this study, as well as to identify and analyze the features generated by young athletes' technical and tactical talents.

The wide range of possibilities provided by our country's president, as well as the large number of sports schools for children and teenagers, high skill sports schools, Olympic reserves colleges, and specialized schools designed to train highly qualified athletes, enable young people to train in certain types of sports even in remote areas. Making use of the numerous chances

available, this study practice was carried out to evaluate the extent to which the physical fitness indicators of 15-16-year-old taekwondo competitors are developing.

However, the technical tactical training of 15-16-year-old taekwondo players, as well as the difficulties of defining the intensity and volume of the tools directed at the direction of physical quality indicators, has not been well researched. This circumstance makes the topic of this study pertinent.

**The purpose of the study:** to study the development indicators of the dynamics of special physical fitness of 15-16-year-old taekwondo players participating in the training group.

**THE RESEARCH OBJECTIVES ARE AS FOLLOWS**

- To investigate the dynamics of development of physical fitness indices in 15-year-old taekwondo players.
- To ascertain the dynamics of physical fitness markers in 16-year-old taekwondo players' growth.

**The object of the study:** the training process of 15-16-year-old taekwondo players in the training group.

**The subject of the study:** the study of the dynamics of special physical fitness of 15-16-year-old taekwondo players participating in a training group.

**Research methods:** analysis of scientific and methodological literature, pedagogical observation, pedagogical testing, mathematical and statistical analysis.

**Organization of the research:** Young taekwondo players (n=90) participating in the training group at Chirchik city sports school took part in the research.

**Results and discussion of the conducted research:** Currently, the training processes of many highly qualified trainers in the sport of Taekwondo with young athletes have returned high results and raised the honor of our country to greater heights, and many of our scientists and with their research on this type of sport, they are helping to identify the correct distribution of physical loads given to athletes in the training processes of young people and to eliminate the mistakes of young athletes.

The indicators of the development of specific physical fitness levels were determined through each specified control test. Practical observational tests were conducted to determine to what extent the dynamics of physical development indicators of 15-year-old taekwondo players are taking shape during training. In the initially selected practical control test, the special physical quality indicators of taekwondo players were determined during the duration of kicking on the right and left legs (20 seconds) using the Tulyo Chagi method. According to him, the results of 15-year-old taekwondo boys at the beginning of the year were  $41 \pm 1.7$  times in 20 seconds and the coefficient of variation ( $V = 56.6\%$ ). By the end of the year, the results of these indicators showed that the young taekwondo players struck  $43 \pm 1.4$  times on the right and left legs, and the difference between the beginning and the end of the year was 1.97. However, statistically significant differences were found when comparing the obtained results ( $p > 0.05$ ).

It was found that 16-year-old taekwondo players, using the neryu chagi method, performed kicking on the right and left legs, and the results of 15-year-old taekwondo boys were higher than those of 15-year-old taekwondo boys.  $\pm 1.1$  times on the right and left legs, it is possible to see that the indicators improved to  $30 \pm 0.71$  by the end of the year. The coefficient of variation was at the beginning of the year ( $V = 37.4\%$ ), but at the end of the year it was hidden ( $V = 39.2\%$ ). there were no statistical differences between them ( $p > 0.05$ ). (See Table 2).

The indicator of rapid physical quality of 15-year-old Taekwondo males was measured by kicking on the left and right legs alternately for 10 seconds. At the start of the year, young taekwondo players scored 81.9 strikes in 10 seconds, but at the conclusion of the year, they had improved to 101.41.

The kicking exercise on the left and right legs was used to measure the quickness of 16-year-old taekwondo guys. At the start of the year, indicators struck the lap 101.9 times, with a coefficient of variation of (V=61.2%). By the end of the year, they could strike the lapa on both the right and left legs 121.41 times.

**Tab.1. Special physical training dynamics of 15-year-old taekwondo athletes**

Norms	TO		TK		difference	t	P
	X±α	V%	X±α	V%			
"Tulyo chagi" technique, rapid kicking on the paw with the right and left foot (20 seconds)	<u>41±1.7</u>	<u>56.6</u>	<u>43±1.4</u>	<u>59.5</u>	<u>1.97</u>	<u>1.92</u>	<u>&gt;0.05</u>
Kicking the Neryo Chagi method on the paws on the right and left legs (20 seconds)	<u>26±1.1</u>	<u>35.4</u>	<u>28±0.71</u>	<u>30.2</u>	<u>1.96</u>	<u>1.24</u>	<u>&gt;0.05</u>
Kat (closer) kicking on the paw alternately on the right and left legs (10 seconds)	<u>8±1.9</u>	<u>61.2</u>	<u>10±1.41</u>	<u>65.7</u>	<u>1.95</u>	<u>1.98</u>	<u>&gt;0.05</u>
Abdominal kicks 10 seconds on the right leg, 10 seconds on the left leg	<u>48±1.9</u>	<u>59.3</u>	<u>50±2.8</u>	<u>61.2</u>	<u>2.09</u>	<u>1.16</u>	<u>&gt;0.05</u>
Kicks on the right and left leg at the speed of Ti (30 sec)	<u>46±0.74</u>	<u>24.6</u>	<u>48±0.41</u>	<u>26.2</u>	<u>1.96</u>	<u>1.74</u>	<u>&gt;0.05</u>

16-year-old taekwondo athletes were also given this control test exercise. According to him, their results at the beginning of the year were 43±1.7, and by the end of the year, their results improved by 46±1.4 times. The coefficient of variation was equal to (V=56.6%) at the beginning of the year and equal to (V=58.6%) by the end of the year. The difference between the results before and after the experiment was 2.97. Statistically reliable differences were found when comparing the obtained results (p>0.05).

The next control exercise was selected 15-year-old taekwondo players, using the Neryo chagi method, to strike for 20 seconds on the right and left legs. at the beginning of the year, young taekwondo players struck 26±1.1 times on the right and left leg, the coefficient of variation was (V=35.4%). By the end of the year, these indicators were found to be equal to 28±0.71, the coefficient of variation (V=30.2%). The statistical difference between the beginning of the year and the end of the year was found to be equal to 1.96.

Taekwondo males aged 15 were chosen for 10 seconds of pounding the stomach with the right and left legs using the Appal technique. Taekwondo players were able to strike the stomach 481.9 times at the start of the year, and at the conclusion of the year, this indicator had increased to 502.8 times. The coefficient of variation was (V=59.3%) at the start of the year and (V=61.2%)

at the end. Their statistical difference was equivalent to 2.09. There are statistical differences ( $t=1.16$ ,  $p>0.05$ ). (See Figure 1)

**Tab.2. Dynamics of special physical fitness index of 16-year-old taekwondo athletes**

Norms	TO		TK		differ ence	t	P
	X±α	V%	X±α	V%			
"Tulyo chagi" method, speed kicking on the right and left feet on the paw (20 seconds)	<u>43±1.7</u>	<u>56.6</u>	<u>46±1.4</u>	<u>58.5</u>	<u>2.97</u>	<u>1.79</u>	<u>&gt;0.05</u>
Kicking the Neryo Chagi method on the paws on the right and left legs (20 seconds)	<u>27±1.1</u>	<u>37.4</u>	<u>30±0.71</u>	<u>39.2</u>	<u>3,06</u>	<u>1.43</u>	<u>&gt;0.05</u>
Kat (closer) kicking on the paw alternately on the right and left feet (10 seconds)	<u>10±1.9</u>	<u>61.2</u>	<u>12±1.41</u>	<u>28.7</u>	<u>1,24</u>	<u>1.68</u>	<u>&gt;0.05</u>
Abdominal kicks 10 seconds on the right leg, 10 seconds on the left leg	<u>49±1.9</u>	<u>60.3</u>	<u>51±2.8</u>	<u>62.3</u>	<u>2.09</u>	<u>1.32</u>	<u>&gt;0.05</u>
Kicks on the right and left leg at the speed of Ti (30 sec)	<u>48±0.74</u>	<u>24.6</u>	<u>50±0.41</u>	<u>26.2</u>	<u>1.67</u>	<u>1.71</u>	<u>&gt;0.05</u>

16-year-old taekwondo boys were also experimented with this test exercise. According to him, the indicators of young taekwondo players at the beginning of the year were  $49±1.9$  (times) with a coefficient of variation equal to ( $V=60.3\%$ ), and by the end of the year the coefficient of variation was  $51±2.8$  (times) ( It can be seen that it changed to the positive side by the end of the year, making  $V=62.3\%$ ). The reliability of statistical differences is equal to ( $t=1.32$   $p>0.05$ ). (See Figure 2).

The next test exercise was a 30-second exercise on the right and left legs at a speed of Ti. Physical indicators of speed of 15-year-old taekwondo players were determined. At the beginning of the year, they returned a result of  $46±0.74$ , and by the end of the year, it ended with a result of  $48±0.41$ . The coefficient of variation was ( $V=24.6\%$ ) at the beginning of the year and ( $V=24.6\%$ ) at the end of the year. The statistical difference between them was found to be equal to 1.96. Reliability of statistical differences ( $t=1.74$   $p>0.05$ ).

The speed indicators of 16-year-old taekwondo players were assessed for 30 seconds on the right and left legs using the Ti chagi technique. They shot 480.74 times at the start of the year, and at the conclusion of the year, they had returned 500.41 outcomes. The statistical difference between the coefficients of variation at the start of the year ( $V=24.6\%$ ) and the end of the year ( $V=26.2\%$ ) was determined to be 1.67. Statistical difference dependability ( $t=1.71$ ,  $p>0.05$ )

15-year-old taekwondo players started the year with a score of 460.74, and at the conclusion of the year, they had a score of 480.41. At the start of the year, the coefficient of variation was ( $V=24.6\%$ ), and at the conclusion of the year, it was ( $V=24.6\%$ ). The statistical

difference between them was determined to be 1.96. Statistical difference reliability ( $t=1.74$   $p>0.05$ )

### CONCLUSION

By analyzing the scientific and educational-methodical literature on the issues of developing physical qualities in wrestlers, the attention of specialists in the field of sports has recently been focused on developing the most effective means and methods of general and special training that meet the increased demands on the functional systems of the athlete's body. That is, their capabilities determine the success of the competition.

The conducted scientific researches and researches prove that the effective use of various tools, including movement games, in the development of special physical fitness of young taekwondo players has a great effect. In order to determine the indicators of physical development, physical qualities of 15-16-year-old taekwondo players participating in the training group, control test exercises were taken from them. In the pedagogical experiment, indicators of speed and physical quality of taekwondo players of both ages were determined. According to the results of this control test, the quickness indicators of 16-year-old taekwondo players were determined using the Ti chagi method. At the beginning of the year they shot  $48\pm 0.74$  times, and by the end of the year they returned  $50\pm 0.41$  results. The coefficient of variation was at the beginning of the year ( $V=24.6\%$ ), and at the end of the year ( $V=26.2\%$ ), the statistical difference between them was found to be equal to 1.67. reliability of statistical differences was ( $t=1.71$   $p>0.05$ ).

15-year-old taekwondo players started the year with a score of 460.74, and at the conclusion of the year, they had a score of 480.41. At the start of the year, the coefficient of variation was ( $V=24.6\%$ ), and at the conclusion of the year, it was ( $V=24.6\%$ ). The statistical difference between them was determined to be 1.96. Statistical difference reliability ( $t=1.74$   $p>0.05$ )

Necessary recommendations and instructions were developed in order to eliminate the identified shortcomings. The levels of special physical fitness of 15-16-year-old taekwondo players participating in the training group were correctly established during the control test practice.

Regarding the effective organization of measures to eliminate the shortcomings that arose during our research process, opinions were exchanged with the officials of this field and sports coaches with high sports experience.

### LIST OF REFERENCES

1. Decision PQ-337 of the President of the Republic of Uzbekistan dated July 29, 2022 "On measures to further develop the sport of Taekwondo (WT)" <https://lex.uz>
2. Decree of the President of the Republic of Uzbekistan No. PF-5924 of January 24, 2020 "On measures to further improve and popularize physical education and sports in the Republic of Uzbekistan", No. PQ-3031 of June 3, 2017 "Physical It is not an exaggeration to say that the Decisions on measures for the further development of education and public sports contributed greatly to the further development of the taekwondo sport.
3. Abdulaziz Usubjon ugli Khamiddjanov. (2020). The system and content of student selection in belt wrestling. Scientific and Technical Journal of Namangan Institute of Engineering and Technology, 1(4), 316-317.
4. Anashov. V.D. Improving the method of increasing the pre-competition training of highly qualified boxers. 2020. -S.25-69.



5. Dj.K. Kholodov, V.G. Kuznetsov, Theory and methodology of physical education and sport 2000.-200 p. L.V. Volkov, Theory and methodology of children's and youth sports. 2002. -S.37-85.
6. Khamidjanov Abdulaziz Usubjon og'li. (2020). Improving the system and content of selection of children for the sport of belt wrestling. Indicators, 8(11), 12-16.
7. Lee, Ch.K. Technical-tactical characteristics of sorevnovatel'nogo sparringa v Chekwon-do po versii VTF: dis. ... confetti. ped. Nauk: 13.00.04 / Chon Ki Lee. - M., 2003. - B.85.
8. Matveyev L.P Fundamentals of the general theory of sports and the system of training athletes. Kyiv, : [textbook] / L. P. Matveev. - [3rd edition, revised. I'll add.]. – Moscow, 1999. – pp. 279-285. Mavletkulova, A.S. Development of special physical qualities of taekwondo youth athletes / A.S. Mavletkulova. – M.: Physical culture and sport, 2007. -44 b.
9. Mirzanov Sh.S. The priority of developing strength in belt wrestlers using isokinetic exercises and its assessment methodology, (PhD) dissertation. 2019.-S. 32-58;
10. Nuriddin Rukhiddinov Goziyev, Abdulaziz Usubjon ugli Khamiddjanov. (2019). The stage of improving the system and content of candidate selection for belt wrestling. Scientific and Technical Journal of Namangan Institute of Engineering and Technology, 1(3), 279-281.
11. Tajibayev S.S. Doctor of Pedagogical Sciences (DSc) dissertation "Scientific-pedagogical justification of the methodology of using action games in the complex training of teenage martial artists", - Tashkent 2019.- P. 18-28;
12. Ummatov A.A. Development of the method of formation of physical work ability in skilled volleyball players and the development of its evaluation methodology (PhD), - Tashkent 2018.- P. 48-65;
13. Vandyshv, S.V. Soderjanie otbora yunyx hekvondistov na Chalom etape sportivnoy podgotovki : dis. ... confetti. ped. Nauk: 13.00.04 / Sergey Vladimirovich Vandyshv. - Volgograd, 2016. - 140 p.
14. Yu.A. these are all, taekwondo. Theory and methodology. Volume 1. Sportivnoe edinoborstvo: Uchebnik dlya SDUSHOR. Terzi M. S. Fiziologicheskie osobennosti adaptivnykh protsesov u podrostkov v chekwondo. Chelyabinsk - 2003. - 101 p.
15. АУ Хамиджонов. (2020). Белбоғли кураш спорт турига болаларни саралашнинг назарий ва амалий таҳлили. Fan-Sportga, 6(6), 75-77.
16. ФА КЕРИМОВ, АУ ХАМИДЖОНОВ. (2021). Белбоғли курашга болаларни саралашда мусобақа фаолияти ва техник-тактик тайёргарлик кўрсаткичлар самарадорлигини баҳолаш ва назорат қилиш методикаси. Научно-практическая конференция, 1(1), 35-390.
17. ФА КЕРИМОВ, АУ ХАМИДЖОНОВ. (2022). Белбоғли кураш спорт турига 9-14 ёшли болаларни саралашда махсус жисмоний тайёргарлиги кўрсаткичларининг ўрни ва аҳамияти. Научно-практическая конференция, 1(1), 62-73.