

Improvement Of Technical And Tactical Movements Of Wrestlers On The Basis Of Differential Approach, Taking Into Account The Morphological Characteristics

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ABSTRACT

Today, Uzbek wrestling is gaining popularity in all countries, and the use of such terms as "chala", "yonbosh", "halol", "tanbeh", "dakki", "girrom" in international sports arenas serves to introduce the Uzbek nation to the world. Our national wrestling differs from other international types of wrestling by its attractiveness and methods of honest wrestling. A number of measures are being taken to include the national sport of wrestling in the program of the Olympic Games. In this regard, it is important to optimize the training system of highly qualified wrestlers, to develop science-based methods to increase the effectiveness of their technical and tactical actions, taking into account the morphofunctional performance of athletes.

Key words: develop science-based methods to increase, morphofunctional performance

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INTRODUCTION

Today, one of the main directions of state policy for the promotion and development of national sports in the country is "Creating conditions for the development and promotion of national sports and folk games of Uzbekistan." A number of scientists have developed many scientific and methodological developments on the technical and tactical training of wrestlers in the national sport of wrestling, but in the rapidly changing conditions that arise during the competition, a number of scientists have developed effective and guaranteed tools and methods of technical and tactical training. Thus, the work of the musculoskeletal system involved in the implementation of the "royal" methods performed by wrestlers in separate phases on the basis of biomechanical approach has not been analyzed

from a morphokinesiological point of view. the importance of an individual approach in identifying and overcoming "weaknesses" of technical and tactical actions has not been identified. In scientific sources on the technical and tactical training of wrestlers, scientific research on the basis of morphobiomechanical aging of the phases of the implementation of technical actions of the "throw" method, which is widely used in the training of wrestlers, is neglected.

The use of high-intensity loads in the training of professional athletes places great demands on the body of athletes. The research of FA Kerimov, RD Khalmukhamedov, VI Dubrovsky, ND Graevskaya recognized that physical activity can be considered as an emergency that requires the maximum possible

mobilization of the functional reserves of the body of athletes.

The problems of selection of individuals with specific morphofunctional indicators, which allow to achieve record results in the relevant exercises in each sport, were discussed by the following scientists: B.A. Nikityuk, RN Dorokhov, DD Safarova, IK Zabalueva, E. It is reflected in the scientific researches of M.Komissarova, TVPanasyuk, N.Yu.Nerobeev.

The issues of predicting the morphological characteristics of the athlete's body structure, some parameters of motor activity, some physiological indicators, ie integrative indicators of physical activity, the ability to perform certain sports activities are covered in DD Safarova, AA Pokhachevsky, G. Ivanov.

In sports practice, such management methods have been developed by such scientists as VF Boyko, VA Danko, OI Kolomiets, LV Safonov, AN Korzhenevsky, with the help of which the basic characteristics of the process of exercise in this process. There is an opportunity to accelerate to bring you closer to the level of high sportsmanship. Programs and methodological developments in the literature have neglected the issues of differential development of technical skills in the training of wrestlers. During the professional activity of wrestlers, there is a great interest in the negative conditions that develop in their body and the common technical errors associated with them, as well as the issues of their elimination. The above justifies the relevance and necessity of conducting this research.

The aim of the study is to develop a methodology of a differential approach to improving the technical and tactical movements of wrestlers, taking into account their morphological characteristics.

MATERIALS AND METHODS

diagnosis of their functional status, physical performance and reserve capacity on the basis of the principle of individualization of physiological parameters of wrestlers;

development of a classification that meets modern requirements and is improved on the basis of a biomechanical approach instead of the traditional classification scheme of applied "throwing" actions;

development of a set of exercises with a relaxation orientation based on the detection of a state of muscular-tonic asymmetry that prevents wrestlers from performing quality movements;

to determine the dominant somatotype that meets the requirements of national wrestling and the dynamics of qualitative and quantitative characteristics of technical and tactical training of wrestlers among the variations of somatotypes determined on the basis of the quantitative ratio of components that make up the body mass of wrestlers. A comparative analysis of the level of physical development of athletes of different wrestling types participating in the study was made through anthropometric indicators, not only similarities in structure, but also differences in some indicators were identified. These included differences in the circumference and width of the thorax, the ratio of hips to thighs, the width of the pelvis in the sagittal and transverse directions, and the distribution of subcutaneous fat folds. Depending on the indicators of the level of physical development of wrestlers, it was found that athletes in national wrestling can be divided into a separate independent morphological class.

The analysis of somatotype categories of wrestlers revealed that the somatotypes of judokas and sambo wrestlers are of ectomezomorphic type and occur in 33.4-41.7% of athletes. Among Greco-Roman wrestlers, somatotypes were divided into two equal groups: 50% of athletes had an ectomesomorphic somatotype, and 41% had balanced mesomorphism. Endomorphic and mesomorphic compositions are most highly developed in freestyle wrestlers, with a content ratio of 3.3: 6.0: 2.1 in freestyle wrestlers, followed by 3.3: 5.4 in national wrestlers and sambo wrestlers. 2.3. The fact that the mesomorphic content is 6 points in freestyle wrestlers and 5.4 points in wrestlers indicates that the muscle structure is well developed.

The study included control and experimental groups aged 19–21 years.

Individual cardiovascular parameters specific to the system of physiological and hemodynamic indicators were analyzed in 30 highly qualified wrestlers. Taking into account the principle of individualization, the intensity of the 1st and 2nd loads was varied for each athlete according to his physical capabilities. At the same time, the degree of significant change in hemodynamic parameters under the conditions of gradual increase of the load indicates the economical functioning of the cardiovascular system in the examined wrestlers. The analysis of hemodynamic parameters showed that almost all athletes meet the requirements of good sports form and are highly trained.

1-table

Hemodynamic indicators of the functional status of wrestlers (tg) specializing in the sport of national wrestling

№	First name, Surname	Wrestled	1- installation						2- installation						Recovery (min)	
			Sh, ml	Cargo ttt / min	KD H, l/m	SP, m m	Db, sim.	TP, top.	Sh, ml	Cargo ttt / min	QD HИ /M	SB, m m	DB, sim.	TB, ust.		Working time
1.	Nor-v	SU	54,4	108	5,87	130	90	40	86,2	132	13,10	150	70	80	78"	2 min
2.	Nem-v	SU	77,9	70	5,18	100,6	65	35,6	86,5	153	13,23	121,6	50,6	71	81"	3 min
3.	Rax-v	SU	71,3	84	5,98	100	60	40	64,1	152	9,74	125	80	45	79"	3 min
4.	Abd-v	SU	60	88	5,28	130	85	45	66,9	119	8,12	135	90	45	80"	3 min
5.	Max-v	SU	54,2	88	4,76	110	80	30	70,1	120	11,21	120	70	50	80"	3 min
6	Pul-v	SU	71,1	60	6,58	109	80	29	85,5	128	9,85	161	90	51	76"	3 min
7	Uzo-v	SU	50,2	84	4,21	125	90	35	71,5	90	9,43	130	75	55	86"	3 min
8	Ysub	SU	59,16	72	3,52	120	80	40	83,8	120	10,20	126	60	66	85"	3 min
9	Norb-v	SUN	69,8	86	6,002	141	81	60	72	132	9,50	151	79	72	81"	3 min
10	Say-v	SUN	54,8	80	5,260	110	80	30	56,9	144	8,193	125	85	40	86"	2 min
11	Sul-v	SUN	62,5	88	5,50	100	70	30	69,5	156	10,8	125	75	50	85"	3 min
12	Esh-v	SUN	61,6	116	7,14	120	80	40	64,1	164	8,46	125	80	45	85"	3 min
13	Mam-v	SUN	61,6	80	4,92	120	80	40	102,2	112	11,44	145	80	65	90"	3 min
14	Narz-v	1 pazp	66	92	6,072	120	75	45	60,2	136	8,69	130	85	45	80"	3 min
1	Chito	XT	59,	84	5,0	12	80	40	69,	10	6,8	14	80	60	78	4

5	ev	SU	8		28	0			80	0	0	0			"	min
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SH - systolic volume; The number of heart contractions in the UPS; QDH is the minute volume of blood; OTS is the vital capacity of the lungs; AB - blood pressure; SB - systolic pressure; DB-diastolic pressure.

All analyzed hemodynamic parameters were confirmed by recovery indicators. However, an increase in systolic and diastolic pressure was observed after consecutive loads 1 and 2 relative to the initial values. In wrestlers, after the second load, the values of YQS, QDH (minute volume of blood) are high. Such a reaction indicates that the organism is fully capable of ensuring a proper (adequate) and effective adaptation to physical load. This demonstrates the high level of functional capabilities of the wrestlers being tested.

The highlighted group of athletes are bright athletes with a bright future and can be recommended for participation in prestigious competitions. This is also confirmed by the recovery indicators for all analyzed indicators of hemodynamics. As can be seen from Table 1, there is a gradual normalization of YQS, TB, QDH, GSTI in almost all wrestlers within 2, 3 minutes after the 1st and 2nd load tests.

Such a response of the body is appropriate and effective, indicating that the functional state of athletes is highly developed and their capabilities are wide. Athletes' QDH readings varied after the first load, as it was found that each athlete's level of exercise was different and therefore the amount of loads to be lifted depended on the athletes' capabilities.

Wrestlers (tg) at rest, during loading and after recovery are shown (see Table 2). The table shows not only the indicators of physical activity (kgm / min), expressed in absolute values, but also the indicators of the respiratory system. These are the OTS and KMO indicators. The UTS values were close to those typical for male athletes

- values vary from 3.8 l to 5.6 l. High scores were found in only five athletes: Maxmashev (5.6 l), Uzoitov (5.2 l), (4.8 l); In Rakhimov and Pulatov KMO (4.4 liters).

We have developed an experimental program aimed at improving the individual technical and tactical training of wrestlers, taking into account the principle of individualization, calculated the amount of training for each athlete based on the somatotype of athletes, morphokinesiological parameters and physical performance. The vertical perpendicular length from the total center of gravity to the body balance

while maintaining the balance of its location relative to the base surface were analyzed in different cases of the "back bend over chest" method. However, in addition to taking into account the characteristics of body structure, it is expedient to analyze the external and internal forces acting on the body from a kinesiological point of view. The anatomical and biomechanical method of "throwing" can be divided into 5 phases: 1. The phase of standing position. 2. Capture phase. 3. The phase of unbalancing the body. 4. Method execution (discard) phase. 5. Breaking phase (see Table 3). Admittedly, we first distinguished the "standing" phase, because it is this standing position that can be considered as a starting motion to move quickly in a short time. In martial arts, as well as, wrestling begins with a start movement in a national sport, a rapid movement of the body or a change of situation when performing various technical-tactical movements. Such a starting position contributes to the emergence of starting force with the first movement. This provides the effort associated with making the start power catch. Second, the type of standing is also important. In this case, the projection of the center of gravity shifts to a more predominant direction, which negatively affects the balance maintenance quality of the wrestler, who must have high performance to maintain the position in conditions of rapidly changing situations during the competition.

2-table

Indicators of physical activity of wrestlers (TG) specializing in the national sport of wrestling at rest, during loading and after recovery

№	First name, Second name	Wrestler	Physical development			Loading intensity- kg/m / min		Physical working capacity kg/m / min		Fire indicates softness litre	GSTI (unit) Harvard Step-test index	GMO'	
			neck Cm	Weight kg	BVI g/sm	1- installation	2- installation	PWC kg/m/min	PWC- Watt			Definitely. (l.)	Relative (ml/ min / kg)
1	Nor-v	CY	181	81	447,5	1249,9	1581,1	1716,9	286,1-high	3,8	98.6-good.	4,846	52,8 паст
2	Nem-v	CY	170	62	364,7	718,1	949,4	1180	196-middle	3,9	111.9-good.	3,66	59,1 паст
3	Rax-v	CY	164	69	420	998,5	1188,3	1273,7	212,2-above the middle	4,4	110,29	3,87	56,57-ўрта.
4	Abd-v	CY	170	69	405,8	684	1072,8	2039,7	339,9-high	3,9	129.3-good.	5,57	80,5-аъло
5	Max-v	CY	187	87	465,2	884,4	1487,94	1504,1	250,6-high	5,6	120 is good.	5,378	73,3-аъло
6	Pul-v	CY	167	64	383,2	794,97	1012,64	1469,74	245,0-(above the middle)	4.4	115 is good.	4,304	67-аъло
7	Uzo-v	CY	175	75	428,5	1031,15	1139,2	1278,1	203.0-above the middle	5,2	120.9	3,74	51,2 паст
8	Ysu-B	CY	165	65	393,0	824,0	1026,8	1385,87	250,9-high	3,6	133.9	4,41	64,3 –яхши
9	Norb-v	CY	170	72	425	1059,17	1351,9	1820,4	303,4-high	3,9	106.3-Dabre.	5,074	70,4-аъло
10	Say-v	CYH	180	81	450	978.4	1278,7	1648,0	274,6-high	3,9	113-dobre.	4,66	58,6-ўрта
11	Sul-v	CYH	171	73	426,9	993,1	1174,5	1243,4	207,2	3,8	118.5-whiskey	3,80	52,2-паст

1 2	Esh-v	CYH	179	76	424	990,7	1245,2	1576,0	262,6-high	4,8	Visoko 118.1	3,919	52,5 паст
1 3	Mam-v	CYH	173	77	445	1013,0	1289,2	2283,5	380,5-high	3,9	144-Dabre.	6,09	79,10 –аъло
1 4	Narz-v	1 паз.	166	60	361,4	897	1004,6	1305,8	217.6	3,7	101.3-Dabre.	3,45	57,6-ўрта
1 5	Chitoev	XTC y	166	68	409,6	910,8	1008,46	1862,4	310,4 high	3,1	110,29-whiskey	5,16	75,0 аъло

KMO - maximum oxygen uptake; OTS - vital capacity of the lungs; GSTI - Harvard Step-Test Index

The fact is that in athletes, a number of muscles on the right (right-handed standing) and left (left-handed standing), including the trapezius muscles on the surface, as well as the square muscles of the upper and lower back, increase tension because controls.

In analyzing the standing position, we paid special attention to the problem of maintaining a firm position of the body in various situations that pass quickly during the competition. In our study, we also had the task of determining the range of displacement to the extreme limit of the total center of gravity, i.e., until the state of equilibrium is lost. For this reason, we divided 30 wrestlers based on their body length: short wrestlers with a height of 160-169 cm, medium-height wrestlers with a height of 170-179 cm, and tall wrestlers with a height of more than 180 cm. The vertical length of the UOM, which falls at maximum bending to the left, right, and forward while standing, was calculated.

Measurements were made on both the right and left sides from the buttocks to the anterior edge of the femur until the end of the bends in the sagittal direction, i.e., the moment when a fall was possible. In some of the 30 examined wrestlers, different parameters were identified regardless of body length, i.e., asymmetry in the length of the muscles that make up the lower half of the back was detected during the experiment.

A small asymmetry was detected in 5 athletes and a large asymmetry in 6 athletes. Thus, muscle-tonic asymmetries were detected in wrestlers, which were characterized by greater muscle tone on one side of the body (chest).

In the absence of measures aimed at relaxation at prolonged extreme load, a shortening of the length of this muscle is observed and pathological tone is formed. This condition is observed when the shoulder girdle moves up and forward, and the shoulder falls on the side that is leading in that direction.

3-table

Classification scheme of technical movement "throw" on the basis of morphobiomechanical aging

Stages of implementation of the method	Biomechanics analysis in the implementation of the method	(TCG) positioning change
<p>The first phase Phase "standing"</p>	<p>At the last stage of the standing phase, the muscles of the hands and feet and the body are tense, but not much, because the next phase of the throwing-the preparation for the execution of the pull – up is going on. Before performing the phase of "capture", the body of the fighter stands out.</p>	<p>Bunda body (TCG) also silks forward and reaches the front edge of the base area</p>
<p>Second phase Phase "take hold"</p>	<p>The opponent's body forms a single interrelated biomechanical system to ensure the capture phase. In this movement, a change in body posture occurs, and a tie is formed between the opponents. The implementation of the holding phase is carried out either with one hand, or with both hands, or with the holding of the belt. The time that is started and completed to get hold of will be recorded. In the grip, the main load falls on the muscles that twist the fingers and palms of the hands, they are in a stretched and stretched position. In the wrist-palm joint, the muscles that bend the palms and fingers, as well as the wrists, work, the movement of the palm of the hand back and forth is carried out on the account of muscle contraction, which brings the palm closer and farther away. The Bunda stands in the position where the armpit itself is written, while the muscles that bend it are maximally stretched, which provides an increase in the strength of the grip from the place (arms, hands, waist, neck). The most "responsible" place of the palm of the hand is the base of the palm Aldi bone and the palm bone. The length of the palm of the hand is of great importance, including the larger the length of the phalanges of the fingers, the more tightly and firmly the grip will be. But a large load falls on the muscles of the</p>	<p>When performing the holding phase, the position of the center of gravity (uom) in general can be reduced by the active base of the foot in physical exertion, and the passive base can be increased – the athlete simply puts the foot forward and uses it as a base, and the force of gravity in the bun moves to the foot put forward. Under the influence of force</p>

	<p>shoulder girdle and forearm, which allows them to bend the arm to the right or left sides.. This is the small thoracic muscle, the spinal muscle, the lower part of the trapezoid muscle, the lower teeth of the anterior cruciate muscle. In addition, when controlling it by grabbing the collar of the opponent's clothing, the athlete attempts to shorten the distance between the opponent and himself, as a result of which the muscles of the large and small chest, the spinal muscle is extremely tense. In this case, the shovel has a downward slope. This condition is observed when the large and small rhombic muscles, the middle and lower bundle of the trapezius muscle are weak. Weakness can be caused by high demands on the muscles of the back surface and as a result of being in a state of prolonged tension. Also, in a one-sided physical load (or on the chap, or on the right), tension on the corresponding side increases in the squared muscle, which is reflected in the stretching of this muscle. On account of the increase in the tone of the large and small chest muscles in the grip, an increase in breast size, as well as flattening of the lumbar lordosis, occurs.</p>	<p>of gravity, the muscles that lower the arm belt prevent the body from falling against the belt of the hands</p>
<p>Third phase Phase" out of balance"</p>	<p>The type of body structure plays an important role in the performance of this phase. This phase begins after the capture is carried out. In it, two small phases can be distinguished: the first small phase the body of the opponent is aimed at changing the location of the center of gravity in general. This is done on account of the fact that the opponents change the location of the body members in relation to each other. The work of the muscles of the legs is aimed at maintaining a static position, that is, the balance of the body, so the muscles that bend the thigh, perform work that has the property of strengthening the base leg.</p> <p>The calf muscles also perform active work, in which the muscles located on the back surface of the thigh, for example, the three-headed muscle, show great strength. If the foot loses contact with the base area, it turns into an empty leg, its position creates an unstable equilibrium position. The second stage is the time interval until the attacking wrestler takes the center of gravity to the optimal comfortable position in order to carry out the evasion of his efforts by the attacking wrestler. This action can be performed in one zone, where it is difficult to distinguish between both small phases, as indicated here, and can be viewed as a holistic action on it. In some cases, the opponent can take such an uncomfortable position that the bunda common center of gravity can send to the attacking fighter, helping to create favorable conditions for the execution of the throw method. It is worth noting that the phase of withdrawal from the equilibrium state is a necessary part of the implementation of the throw. This phase is again represented by time parameters, that is, it takes into account the time of the beginning and end of the phase.</p>	<p>The third phase is observed with the siljishi of the center of gravity of the fighter, which is engaged in the attack, to the optimal position for carrying out the method.</p>
	<p>This phase can be divided into two small phases: a) the phase of preparation for throwing; B) the phase of implementation of throwing. During this phase, the attacking wrestler increases the range of necessary movements in order to prepare for a more comfortable position to repel the opponent.</p>	<p>This condition is</p>

<p>Fourth large space</p> <p>Phase" throw"</p>	<p>This phase has a different time interval according to the duration of the time parameters. The beginning of this phase corresponds to the end of the movement of the opponent's body out of balance, the final point of time corresponds to the movement of the opponent's throw. In this phase, the method, that is, the removal, is carried out. The most common throwing action is to "increase the back". After removing the opponent's body from the balance, raising and holding the opponent from the carpet are carried out in small phases. In this small phase, there is a timely implementation of the most active stresses in the throwing movement, that is, an attempt is made to "lift" the fur itself and its opponent, which is one of the most leading elements in the structure of the fighting movements. The other most important pallet is the back movement of the arm belt and the leveling of the spine. Bunda it is necessary to bend the body forward, write down the legs and clearly coordinate the movements of the hands with each other. At the same time, it is necessary to pull the opponent to himself, provided that he firmly holds the opponent</p>	<p>characterized by an imperfect equilibrium state type</p>
<p>Fifth phase</p> <p>Phase" demolition"</p>	<p>In this phase, the opponent's fall on the carpet occurs. It can begin in the process of the previous phase. Its start time and end time are also recorded and can vary depending on the individual characteristics of the athlete.</p>	<p>It happens that the wrestler falls on the carpet</p>

The program provides for the training of wrestlers in a certain order, taking into account the individual characteristics of each wrestler - the level of physical development, functional status (see Table 5). In our study, we examined the functional status of wrestlers based on the principle of individualization and made a preliminary diagnosis of the athlete's future prospects.

5-table

Criteria for taking into account the composition of the body in the individual technical and tactical training of wrestlers

The superiority of solving tasks	Ektomorf (One long)	Endomorphous (Fat in the body)	Mesomorphous (Muscle developed in the body)	Instructions
Change of somatotype %	-	Changed from 65.2% to 82.5 %		-
Adaptation options	-	+	+	-
Respond to the impact of downloads	-	+	+	-
The effectiveness of performing technical-tactical actions	-	+	+	-

In the muscles of wrestlers with a high level of exercise, the optimal response of the organism to loads was observed (see Table 6). Wrestlers made fewer mistakes when performing specific movement exercises and did not deviate from the trajectory of movement, as the study determined how far the UOM (total center of gravity) could maintain body balance when performing movements while standing with the total center of gravity upright, moving left, right, and forward assimilated.

6-table

The content of the experimental program of individual technical and tactical training of wrestlers specializing in the national sport of wrestling

Task solving advantage	Shelter Neck (180)	PWC 170	Braxiomorph Neck (170-180)	PW C ₁₇ 0	Mesomorphous Neck (160 - 170)	PWC 170	Instruction
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	Say-ev-SUN, Eshboev-SUN	274, 6 262, 6	Pulatov-SUN, Norkulov-SU	245, 0 286, 1	Sultanav-Sun, Mamatav - Sun, Nemev- Water, Chitev- MSMK, Abdev-Su, Water, Yusupav- Water, Makhmashaev -Water	207, 2 380, 5 196 310, 4 339, 9 303, 4 250, 9 250, 6	
YOM	100,50 sm		96,27 sm		91,55 sm		
Competition Activity	Average high, high		Average high, high		Average high, high		
Application of technical methods and their evaluation	Low level, above average		Average		Юқори, Ниҳоятда юқори		
The effect of defensive actions	High		Low level		Very low, Low level		
«horn rod» number of methods	1		1-2		2		
1.Improvement of various applied tactical methods taking into account the situation when passing the competition.	262		280		252		
2.Preparatory actions in the use of Shokh methods at the highest level	259		277		249		
3.Improving the effective defensive actions that eliminate the opponent's attacks.	230		256		220		
4. Mastering the elements of special actions inherent in the fight.	169		187		159		
5.Mastering of technical –tactical movements specific to the competition while standing.	130		140		120		

Download volume (hours))	Month-125; Year-1050	Month-120; Year-1140	Month-120; Year-1140	
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A comparative analysis of the indicators of general and special physical training of wrestlers of 30 control and experimental groups specializing in the national sport of wrestling was conducted. As presented in the second chapter, the correct identification of wrestlers with the same initial knowledge of physical development and level of physical fitness was made. Tests conducted at the beginning and end of the experiment revealed differences between the experimental and control groups. The control group received positive results on a number of tests reflecting general and specific physical fitness, but the results were not statistically reliable and only a clear reliable increase was detected on two indicators: the pull-up results improved by 5.7% and the leg lift on the

Swedish wall 6.6%. Transferring the weight to the shoulder of an equal partner, 6 times the sitting time increased by only 0.99%, and 10 times the time for rising from a lying position to a sitting position at an angle was also found. The time to bend back and throw the mannequin 10 times increased by 4.4%. There was also a small increase in speed: 1.08% in the 60 m run from the high start and 2.4% in the long jump from the standing position (see Table 7). It should be noted that all tests were conducted according to the recommendations and evaluated by experts.

Indicators of physical fitness of wrestlers before and after the pedagogical experiment in the experimental group are given (see Table 7).

7- Table

Indicators of physical training of wrestlers in the experimental group (NG) and (TG) before and after pedagogical practice (n = 15)

Control exercises	Group	From experience before (x±σ)	After the experiment (x±σ)	t	P	Relative of indicators growth %
Long jump from a standing position (meters)	cg	2,42±0,19	2,56±0,21	1,91	>0,05	5,8
	eg	2,48±0,21	2,72±0,20	3,21	<0.01	9,7
60 m running (SEC)	cg	8,25±0,46	8,56±0,45	1,87	>0,05	3,8
	eg	8,29±0,46	8,83±0,45	3,25	<0.01	6,5
High tourniquet traction (times)	cg	35±2,68	37,1±2,67	2,15	<0.05	6,0
	eg	35,2±2,68	38,3±2,67	3,17	<0.01	8,8
Lifting the legs hanging on the Swedish wall (Martha)	cg	15,3±1,04	16,1±1,03	2,12	<0.05	5,2
	eg	15,1±1,04	16,6±1,03	3,97	<0.001	9,9
The 20s. lay down inside rely on hands, write-down (times)	cg	47,2±2,92	45,3±2,76	1,83	>0,05	-4,0
	eg	47,3±2,92	44,7±2,76	2,51	<0.05	-5,5
Time to sit down six times with a partner equal in weight (SEC)	cg	10,1±0,69	10,6±0,71	1,96	>0,05	4,9
	eg	10,3±0,71	11,2±0,73	3,42	<0.01	8,7
From the lying position in 10 times to sit down, forming a corner (SEC)	cg	10,2±0,71	9,73±0,66	1,88	>0,05	-4,6
	eg	10,4±0,74	9,45±0,74	3,52	<0.01	-9,1

By analyzing the indicators in the table, it is possible to distinguish between increases in general and specific physical fitness. The smallest increase was found in the reclining of the arms - 5.5%, in the 60 m run - 6.5%, in the long jump - 9.7%, in the horizontal bar - 8.8%.

The increase in specific training indicators was as follows: 6 times sitting time (s) 8.7%, transferring the weight to the shoulder of an equal partner; time of 10 ascents from the supine position to the sitting position at an angle (s) - 9.1%; the time of throwing 10 times over the back

is 7.5%; the time to throw the mannequin 10 times over the back was 6.4%.

The data show that an increase in general and specific physical fitness was detected in both control and experimental groups. However, a reliable increase in performance was found for the experimental group wrestlers, while a reliable difference in the control group was observed in only two indicators. The relaxation exercises used by us played an important role in the increase of special physical fitness, due to which symmetry was achieved in the placement of the muscles on the right and left sides of the body, technically.

- It is possible to eliminate hypertension, which has a negative impact on the technique of tactical actions.

CONCLUSION

1. Based on the analytical study of scientific and methodological literature, it was found that currently there is a lack of differential approach to improving the technical and tactical movements of wrestlers specializing in the national sport of wrestling, taking into account their morphological features, and insufficient research in this area.

2. Endo-mesomorphic somatotype is more common in athletes, freestyle wrestlers and sambo wrestlers engaged in national wrestling. The ecto-mesomorphic component can be thought of as a somatotype more specific to Greco-Roman wrestlers and judokas. Based on dynamic observations and research, it was found that athletes with balanced-mesomorphic somatotypes have a wide range of adaptive abilities and can be formed under the influence of loads in different directions so that their somatotypes can effectively and meet the requirements of the chosen sport.

3. Absolute and relative values of the general physical performance of wrestlers according to PWC170 are analyzed. Six athletes with the highest levels of physical activity were identified, whose physical performance values ranged from 250.6 to 286.4 watts, and these values were also rated as excellent. The physical performance of the average rated wrestlers was 196.0 watts. As a result, 5 athletes with a bright future have been identified, and it is predicted that they will perform well in prestigious competitions.

4. The 30 wrestlers selected were distributed by body length. Calculations on the calculation of the vertical length of the UOM, which falls at maximum bending to the left, forward, right, have shown that when the body length varies, the location of the total center of gravity of the body is different, but for the first

time the vertical length of the body UOM variable, and the body was found to have different values because the length of the limbs varied.

5. Morphobiomechanical analysis of each phase of the throwing action, in particular, the standing phase, the catching phase, the body unbalancing phase, the method (throwing) execution phase and the demolition phase was carried out. For each phase, the leading and auxiliary muscles were separated, the location of the UOM (total center of gravity of the body relative to the base area) was taken into account (the imbalance of the body depends on it), and the work of the limb joints was analyzed. Technical errors that can be made by wrestlers in the execution and possession of elements of throwing actions have been proven and eliminated.

6. When studying the conditions of maintaining body balance, 30% of the wrestlers examined were found to be in a state of muscle asymmetry and hypertension in the torso and pelvis, and a complex of relaxation (relaxation-oriented) exercises helped to eliminate body hypertension, preventing injuries. Excessive muscle tension leads to changes in the position of the pelvis relative to the body, overloading of the limbs, shifting the center of gravity and a decrease in the balance of the wrestler's body, resulting in improved performance of each element of technical and tactical movements by athletes. served to increase to 10,4%.

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