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Methodology For Improving The Dynamics Of Development Of Relative Indicators Of Handball Players' Types Of Training In Qualification

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Annotation: This article describes the methods for determining and improving the dynamics of the development of relative indicators allocated to types of training in the selection of handball players at the training and training stage, as well as the impact of these methods on the special physical training of handball players. The processes of achieving improvement in targeted indicators by training hours by determining relative indicators allocated to types of training are widely covered.
Key words: types of training, handball players, qualifying, relative performance, special physical qualities.

Introduction

Nowadays, the holding of major international handball competitions creates an obligation to take care of the planned training of the sports reserve at the level of modern requirements. Modern handball is an athletic game. It is necessary to take into account the high pace of movements in the game, the rapid change of situations, the presence of direct collisions with the opponent in the fight for the ball.

Scientific studies by many experts have highlighted the limited time of possession of the ball, other features of handball, and the high demands on the movement, functional and mental spheres of the athlete's activity. An analysis of special studies on the topic conducted by expert scientists shows that the enrichment of national teams with talented, promising young people is inextricably linked with the methods of selection for SM and OPSTTM and concentration in handball training groups. After all, their task is to ensure the upbringing and education of qualified athletes who have mastered both technical and tactical methods of the game and have the necessary physical qualities and psychological characteristics for their implementation. Purposeful multi-year training and the upbringing of highly qualified athletes is a complex process, the quality of which is determined by a number of factors.

According to scientists, the initial selection of talented children and their orientation to sports is one of the complex problems of sports theory and methodology, according to such specialists as Sh. K. Pavlov, F. A. Abdurakhmanov, J. A. Akramov, the need to increase the effectiveness of training the Olympic reserve for the country's national teams increases the urgency of the issue of comprehensive assessment of the preparation of handball players. This, in turn, implies improving both the initial and subsequent selection system during the multi-year training process. Therefore, along with the study of children's physical abilities, there is a need to find optimal organizational conditions for the realization of their individual talents and abilities, potential.

Analysis of the research work of B M Agrebi, V M Volkov, V P Filin, V P Guba, V Y Ignateva shows that the problem of selecting and directing gifted children to sports, as an independent direction, requires constant direction, improvement and further development.

One of the important tasks of specialists in our country is to develop the theoretical foundations of sports selection, to pay attention to issues related to the dynamic characteristics of professional qualities, the possibilities of their improvement and application. Experience gained from sports practice shows that not everyone can become a musician, artist, artist, athlete and other professions, since the criteria developed by society for such professions are set quite high. The search for talented children capable of mastering a profession or sports activities requires further improvement and scientific substantiation of the selection system. The growth of results in sports depends on the increase in the popularity of sports, as well as the widespread use of various selection criteria in sports and the tasks of directing them to sports, along with training tactics and methods.

Materials and methods

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Purpose: To improve the dynamics of the development of relative indicators of handball players allocated to the types of training during the training and training phase, and to monitor the processes of developing special physical qualities of handball players.

To achieve this goal, we have set the following tasks:

Study of scientific literature and scientific articles on the topic.

Study and analysis of the loads used in training.

Identify and improve the relative indicators of the types of training and training hours allocated at the training stage.

Determine the impact of the implemented innovation on specific physical qualities.

Research methods: To conduct our research, we used the following methods.

1. Analysis of scientific literature sources and generalization of scientific and methodological experiments.
2. Pedagogical observations and control tests.
3. Determination of the results of experiments and observations using mathematical statistical methods.

Results and discussion.

Based on the development dynamics of handball players at the training stage, the selection process creates a basis for developing the overall development dynamics of the relative indicators allocated to the types of training by controlling and improving the volume of training types. Studies have shown that the possibility of targeted selection of athletes for this stage can be expanded by improving the relative indicators of the volume of training types based on the development dynamics of handball players at the training stage. (See Figure 1). At this stage, the volume of training types is distributed, focusing on general, special physical,

technical-tactical, competition types of training. The development of general and special physical, technical-tactical, competition preparation of handball players affects the development of training types by improving the relative indicators of the volume of training types.

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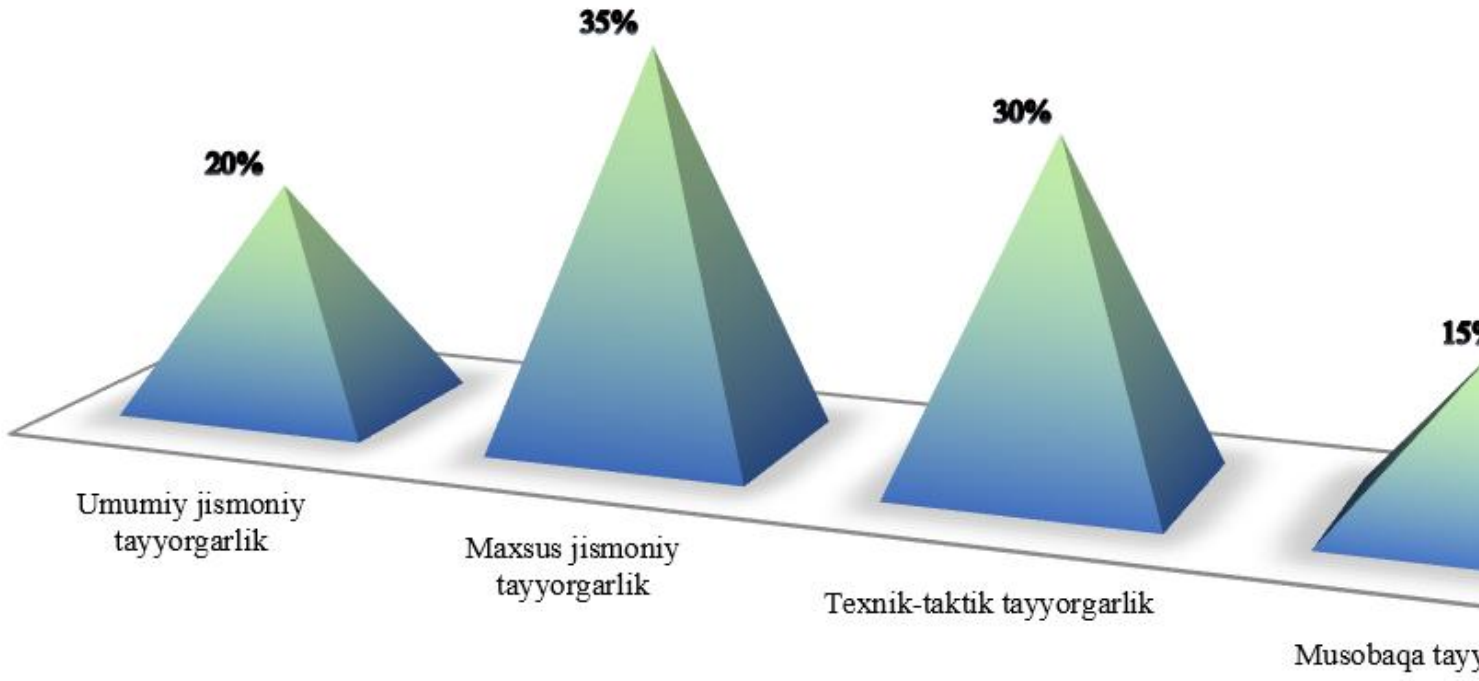

Figure 1. Dynamics of relative indicators of training types of handball players aged 13-16 (training stage)

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By improving the targeted indicators of training hours, it is possible to control the volume of training loads and contribute to improving the results of athletes. At the training stage, the targeted indicators of training hours were improved by correcting the volume of training types of handball players (see Table 1).

The allocation of the training stage for the one-year general physical training stage was 160 hours, but according to the results of the improvement processes, it was 110 hours.

168 hours were allocated for special physical training, but during the improvement process it was 197 hours. In the targeted indicators of training hours, 234 hours were allocated for technical-tactical training, which was reduced to 164 hours during the improvement process. The indicators remained unchanged at the training stage, with competition preparation accounting for 91 hours, theoretical preparation for 12 hours, psychological preparation for 14 hours, conduct-control tests for 8 hours, refereeing and coaching practice for 10 hours, and recovery activities for 18 hours.

The allocation for general physical training for the two-year training stage was 185 hours, and according to the results of the improvement processes, it amounted to 128 hours. While 196 hours were allocated for special physical training, it expanded to 231 hours during the improvement process. In the targeted indicators for training hours, the 271 hours allocated for technical-tactical training were reduced to 190 hours during the improvement process. The indicators remained unchanged at the training stage, with competition preparation accounting for 103 hours, theoretical preparation for 14 hours, psychological preparation for 22 hours, conduct-control tests for 8 hours, refereeing and coaching practice for 12 hours, and recovery activities for 20 hours.

The allocation for the three-year general physical training stage of the training stage was 241 hours, but was reduced to 167 hours based on the results of the improvement processes.

242 hours were allocated for special physical training, while 285 hours were allocated during the improvement process. In the targeted indicators for training hours, 357 hours were allocated for technical-tactical training, which was reduced to 251 hours during the improvement process. During the training phase, the parameters remained unchanged, with competition preparation totaling 137 hours, theoretical preparation 18 hours, psychological preparation 28 hours, conduct-control tests 10 hours, refereeing and coaching practice 16 hours, and recovery activities 24 hours.

Table 1

Addressed indicators of training hours for the advanced training phase

№	Preparatory departments	One year	Two years	Three years	More than three years
1	General physical fitness	110 (160)	128 (185)	167 (241)	184 (266)
2	Special physical training	197 (168)	231 (196)	285 (242)	339 (270)
3	Technical-tactical training	164 (234)	190 (271)	251 (357)	300 (398)
4	Competition preparation	91	103	137	111
5	Theoretical preparation	12	14	18	20
6	Psychological preparation	14	22	28	30
7	Conducting control tests	8	8	10	12
8	Control games	Outside the clock network			

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9	Arbitration and guidance practice	10	12	16	18
10	Participation in competitions	According to the calendar plan of mass sports events			
11	Recovery activities	18	20	24	26
12	Medical examination	Outside the clock network			
Total		**624**	**728**	**936**	**1040**
Weekly upload hours		**12**	**14**	**18**	**20**

Note: *The hours in parentheses in the table are the hours specified before the improvement.*

The training phase, which lasted more than three years, was allocated 266 hours for general physical training, while the improvement process resulted in 184 hours.

270 hours were allocated for special physical training, while the improvement process resulted in 339 hours. In the targeted indicators for training hours, 398 hours were allocated for technical and tactical training, which was reduced to 300 hours during the improvement process.

At the training phase, competition preparation amounted to 111 hours, theoretical preparation to 20 hours, psychological preparation to 30 hours, conduct-control tests to 12 hours, refereeing and coaching practice to 18 hours, and recovery activities to 26 hours, the indicators were left unchanged.

The one-year, two-year, three-year and

more than 3 years stages of the training stage are distributed in terms of teaching hours with the annual indicator of targeted indicators and weekly workload hours unchanged.

In the one-year stage of the training stage, the annual indicator of targeted indicators in terms of teaching hours is 312 hours in the first year, 728 hours in the second year, 936 hours in the third year, and 1040 hours in the period of more than three years.

These improved targeted indicators in terms of teaching hours remain unchanged with a weekly workload of 6 hours. The target indicators for these improved training hours remained unchanged, with a weekly workload of 12 hours for one year, 14 hours for two years, 18 hours for three years, and 20 hours for more than three years.

In order to assess the indicators of special physical training of boys aged 13-16, an assessment was carried out through exercises to develop physical abilities specific to the game of handball. The results of the study were statistically processed, the data are presented in Table 2.

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Table 2

Dynamics of special physical training indicators of handball players of the experimental and control groups aged 13-16 at the beginning and end of the experiment

Indicators	Unit of measurement	Boys			
		NG	TG	t	P
		$\bar{x} \pm \sigma$	$\bar{x} \pm \sigma$		
Getting from the 6-meter line to the 9-meter line in 30 seconds (times)	times	15,1±1,3 15,6±1,4	15,5±1,4 16,2±1,5	1,72 2,06	>0, <0,
hooting 8 balls from the 6-meter line in the free throw zone	s	34,2±3,2 33,4±3,1	33,9 ±3,0 31,8±2,9	1,74 2,66	>0, <0,
Running 30 m with a ball on the ground	s	5,6±0,4 5,5±0,6	5,5 ±0,3 5,2±0,5	1,82 2,71	>0, <0,
unning through obstacles while hitting the ball 30 m	s	10,5±0,9 10,2±0,7	10,4±1,0 9,7±0,8	1,94 3,33	>0, <0,
hrowing a ball in the sport of handball	m	29,9±2,5 31,2±2,8	30,1±2,6 32,5±3,1	1,95 2,20	>0, <0,
Throwing a children's ball with both hands while standing	m	16,3±1,5 17,3±1,6	16,5±1,4 18,2±1,7	1,91 2,73	>0, <0,
Throwing a ball with two hands while sitting	m	8,1±0,6 8,5±0,9	8,3±0,7 9,1±1,0	1,86 3,16	>0, <0,

Note: *In the table - the results at the beginning of the experiment; in the denominator - the results at the end of the experiment. NG-control group, TG-experimental group. [n=50]*

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Conclusion

The experimental and control groups performed a 30 m hurdles run to determine the ability of 13-16 year old handball players to hit the ball on the ground quickly. In the first stage of the study, the difference between the results of the control and experimental groups was on average t=1.82 (P>0.05), and in the second stage of the study, the difference between the results of the control and experimental groups was t=2.71, (P<0.01).

At the beginning of the pedagogical experiment, the experimental and control groups underwent a special physical training exercise of handball players, a 30 m hurdles run control test. At the end of the experiment, a statistical difference was determined between the control and experimental groups (P<0.01). In order to determine the level of mastery of the technical element of throwing the ball while jumping and hitting the ball at the target by handball players aged 13-16, the handball players of the experimental and control groups passed the test standard of throwing a children's ball with two hands while standing (the best result from three test attempts was taken into account). At the end of the study, the statistical difference between the results of the experimental and control groups was equal to the reliability (P<0.01).

As a result of the special exercise of throwing the ball with two hands while sitting, the arithmetic mean of the above indicator recorded by the handball players of the control group in the special game preparation exercise was 8.1±0.6 meters, and at the end it changed to an average of 8.5±0.9 meters. We can see that the same indicators of the handball players of the experimental group improved by an average of

8.3±0.7 meters at the beginning of the study and by an average of 9.1±1.0 meters at the end. In the first stage of the study, the difference between the results of the control and experimental groups was t=1.86, (P>0.05), and no statistical differences were detected. In the second stage of the study, we can see that the difference between the results of the control and experimental groups was t=3.16, (P<0.01). In the process of sorting handball players based on the dynamics of the development of training types at the training stage, controlling the volume of training types and improving the volume of training types creates a basis for developing the overall dynamics of the development of relative indicators allocated to training types. In the process of selecting handball players for the training stage, based on the dynamics of the development of training types, the study revealed that the possibility of targeted selection of athletes for this stage can be expanded by improving the relative indicators of the volume of training types.

Improving targeted indicators for training hours allows you to control the volume of training loads and leads to improved results for athletes. During the training stage, targeted indicators for training hours were improved by correcting the volume of training types.

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