

BASIC DIRECTIONS OF REFORMING THE PREPARATORY PROCESS OF THE BEGINNER HANDBALL PLAYERS AND THEIR CHARACTERISTICS MODEL OF ROLE-PLAYING GAME

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Key words: handball; types of motor activity; coordination opportunities; motor skills; team-game specialization; educational process; intellectual development; role; the psychomotor; modeling.

Abstract: This article presents scientific information about the features of the main directions of reforming the preparatory process of beginner handball players in the formation of model characteristics of the role-playing game. At the same time, it should also be noted that at the present stage of development in a difficult social environment, which imposes special requirements on the sports-preparatory process, including intellectual and physical ones. Currently, the calendar of competitions has radically changed, it has become more dense and intense for teams of various levels and ages with high requirements for the results of competitions. And this in turn creates difficulties in the preparatory process of athletes, allowing excessive intensification of training sessions, with all the consequences. To this it is necessary to add, extremely inadequate material and technical support for sports, including in handball. That is why we believe that in this situation, to improve the sports training of handball players, at the present stage, it is necessary to use other possible reserves, which suggest, against the background of general preparatory processes, the restructuring of existing ways of organizing gaming opportunities, including to an earlier age-based team-gaming specialization of athletes, in which their role, as an individual sports and technical characteristic, will be especially effective in competitive manifestations.

Introduction: Currently, the traditionally developed system of training athletes in handball has exhausted itself and does not cause noticeable shifts in achieving goals, which leads specialists to search for new approaches, tools and training methods.[1,3,6,7,9]

In our opinion, of particular interest is the scientific research of a number of authors who tie the reform of sports training to biological age-related periodization, associated with the features of the organism's functionality and the interests of young athletes. Among the many, it is worth highlighting such authors who prove the relationship of the intellectual state of athletes to training and their competitive success.[2,4,5,10,11]

In this way, in our opinion, the solution to this problem is relevant and important for the sports improvement of handball players in the modern conditions of the sports development in the Republic of Moldova.

Material-Method

Purpose of the research. To reform the preparatory process of beginner handball players of 12-13 years old taking into account the model characteristics of their playing role.

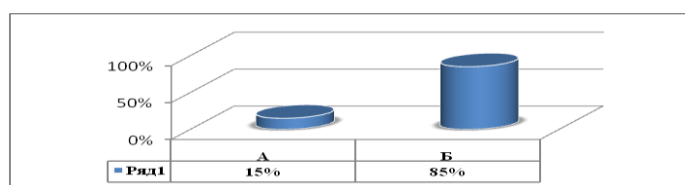
Objectives of the research. 1. To conduct a sociological survey of specialists-coaches from the Republic of Moldova on the early specialization of handball players and the factors that influence this process. 2. To develop the main directions of reforming the Training programme for the handball players of 12 - 13 years old at the present stage. 3. To substantiate the models of characteristics of the playing roles of handball players of 12-13 years old at the stage of their initial specialization.[8,10]

Organization of the research. In the course of the 2012, we studied the available scientific literature of domestic and foreign authors on the structure of the team-game role of handball players of 12-13 years old and the possibility of forming role settings in the training and competition process, and also revealed the opinions of the coaches-respondents on the issue of an earlier age-related game specialization of handball players.

Results and discussions

To confirm our hypothesis that the team-game specialization in handball is a factor in the prospective construction of a strategy for competitive success, we studied the proposals, opinions and recommendations of practical coaches, with different levels of sports qualifications about the current state of the sports-preparatory process in handball, and the features of game specialization and the prospects for the development of this sport in the Republic of Moldova.

So, to the question: “Are you comfortable with the preparatory-competitive handball process in modern conditions?”, the responding coaches answered ambiguously. So, some of the respondents (up to 30%) answered the question “Yes” in the sense that they are satisfied with the preparatory handball process that they currently use. Obviously, these were coaches with little work experience and who were reluctant to relate to any changes. At that time, a significant part of the responding coaches (up to 70%) spoke in favor of the fact that the existing preparatory process for handball players of 12–13 year old. Figure 1 shows the answers of the respondents to the question: “What do you see the relevance and need for sports and technical specialization of handball players in the playing field?”. As can be seen from Figure 1, a significant part of the respondents noted (letter B, up to 85%) that the specialization of handball players on the playing field is important and necessary to achieve competitive success. At the same time, only some of the respondents surveyed noted (letter A, up to 15%) that specialization of handball players on the playing field is not necessary, since players must be technically universal in the game.



Note: A - specialization is not needed, as players must be technically universal in the game.

B - specialization is important for competitive success.

Fig. 1. Answers of coaches to the question: “What do you see the relevance and need for sports and technical specialization of handball players in the playing field?”

As for our opinion, we share the opinion of most coaches, and we believe that such specialization of players is necessary to build the

necessary tactical strategy of the game based on the technical and motor capabilities of athletes.

On the question: “Do you have a program of specialized training for players in the role in handball?” The respondent coaches divided their opinions into three groups.

In our opinion, in connection with the features of the new tactical constructions, it is necessary to regularly compare the anthropometric indicators of athletes with the model characteristics of this role. To determine the morphological features of handball players of various roles, we examined young and qualified athletes (1st category, CMS, MS) specializing in handball, aged from 12 to 23 years old.

Table 1 presents the anthropometric indicators for handball players of 12–13 year old by their roles developed on the basis of models of highly qualified handball athletes.

Tab. 1 Anthropometric indicators model for handball players of 12-13 years old of various roles

Role	Anthropometric indicators (model)				
	Growth (cm.)	Weight (kg.)	Ketle index	Hand's length (cm.)	Wrist size (cm.)
Quarterbacks	161 - 168	51 - 53	0,24	43 - 47	15 - 17
Welterweight	169-176	58 - 64	0,24	46 - 50	18 - 20
Linear	162-170	58 - 60	0,24	45 - 49	16 - 19
Extreme	159 - 163	48 - 51	0,24	41 - 45	14 - 16
Goalkeepers	162 - 168	55 - 64	0,24	44 - 48	15 - 18

As can be seen from Table 1, all permissible ranges of weight and height, as well as arm lengths and handball size of handball players of 12–13 year old in various roles are related to the Ketle index, which is optimal for this age, which determines the relative proportionality of the musculoskeletal system with the necessary fatty components in the body of athletes. We have studied the state of motor preparedness of handball players of 12-13 years old, according to their strength, rapidity, speed and strength abilities, and calculated the proper results.

Tab. 2 Actual results of motor abilities of handball players of 12-13 years old with the traditional preparatory process and their proper (model) age indicators

No.	Motor tests	Actual result \bar{X}	Proper result (model) \bar{X}
1	Running 30 m, (sec.)	5,60	4,85 and <

2	Flexion and extension of the arms with emphasis on the gymnastic bench (number of times)	7,00	10,00 and >
3	Triple jump from standstill (cm.)	530	565 and >
4	Dynamometer force of comfortable hand (kr)	18,00	20,00 and >
5	Dynamometer force of non comfortable hand (Kg.)	16,00	18,00 and >
6	Torso tilt forward and down on a gymnastic bench (cm.)	6,00	8,00 and >

Table 2 presents the actual results of the motor abilities of handball players of 12-13 years old with the traditional preparatory process and their proper age indicators. As can be seen from Table 2, all the actual results of the motor capabilities of handball players of 12-13 year old who have traditionally been engaged in sports training do not reach the proper level of their physical preparedness, which naturally reduces their technical, tactical and coordination capabilities in competitive manifestations. The obtained data of the subjects characterizing the actual and proper level of technical abilities are presented in Table 3. As can be seen from Table 3, all actual results of technical tests do not meet their proper age criteria, due to the fact that the traditional technical readiness of handball players of 12–13 year old is flawed in the preparatory process and, first of all, in the imperfection of the educational material for this category of handball players .

Tab. 3 Actual and proper (model) results characterizing the technical condition of the tested handball players of 12-13 years old

No.	Technical tests	Actual result \bar{X}	Proper result (model) \bar{X}
1	Handling with a handball ball of obstacles at a distance of 30 m. (sec.)	37,0	33,5 and <
2	Ball throws on the accuracy, (number of times)	8	9 and >
3	Throwing a female handball ball for range, (m)	22,5	26 and >
4	From the free throw line, throw 15 goals into the gate, (number of times)	11	14 and >
5	Comprehensive exercise for all handball players. (sec.)	35,00	33,4 and <
6	Comprehensive exercise for the goalkeeper, (sec.)	20,0	18,6 and <

The technical training of handball players has a direct connection with coordination capabilities: the higher coordination of a handball player, the higher his technical capabilities. We experimentally

substantiated the integral (model) indicators of various types of training handball players of 12-13 years old, which they should have in accordance with the game role. These data are presented in Table 4. As can be seen from Table 4, morpho-functional, psycho-functional, general and physical and specialized coordination-technical indicators correspond to the appropriate level of handball players of 12-13 years old, which are included in the indicated intervals.

Tab. 4 Proper integral indicators of the game role model for handball players of 12-13 years old at the initial specialization stage

N o	Types of Testing and Tests	Role				
		Quarterbacks	Welterweight	Linear	Extreme	Goalkeepers
Morpho-functional indicators						
1	Growth (cm)	161-168	169-176	162-170	159-163	162-168
2	Weight (kg.)	51-53	58-64	58-60	48-51	55-64
3	Dynamometry of a comfortable hand (kg)	19,0-19,5	20,0-20,5	20,5-21,0	18,0-19,0	19,5-20,0
4	Dynamometry of a non comfortable hand (kg)	17,0-17,5	18,0-18,5	18,5-19,0	16,0-17,0	17,5-18,0
5	Spirometry (l)	2,6-2,8	2,9-3,1	3,0-3,2	2,5-2,7	2,8-3,0
Psycho-functional indicators						
1	Tapping test (qty.)	370-400	340-370	350-380	330-360	390-420
2	Response to light (s.)	0,28-0,31	0,30-0,33	0,27-0,29	0,32-0,34	0,25-0,27
3	Response to sound (s.)	0,23-0,25	0,25-0,27	0,22-0,24	0,24-0,26	0,20-0,22
General physical preparedness						
1	Running 30 m (c)	4,5-4,7	4,7-4,9	5,0-5,2	4,5-4,6	5,3-5,6
2	Long jump from a place (cm)	172-181	183-190	181-186	168-176	176-184
3	Triple jump from a place (cm)	555-570	575-605	570-600	545-565	540-560
4	Throw ball of 1 kg (m)	7,4-7,8	8,0-8,4	8,2-8,6	7,2-7,6	7,8-8,2
5	Shuttle run (c)	25,8-26,4	27,4-28,2	28,2-28,6	26,0-26,8	28,4-28,8
6	Cooper test (m)	1530-1560	1500-1530	1440-1470	1560-1590	1440-1470
Specialized Coordination and Technical Preparedness						
1	Stroke obstacles on the distance of 30 m.	8,4-8,7	8,6-8,9	8,9-9,2	8,2-8,5	9,1-9,3
2	Throws the ball for accuracy from 6 m. (number of throws)	8-10	7-9	9-11	6-8	5-7
3	Passing the ball to the goal in 10 seconds (no.of times)	7-10	7-9	6-8	5-7	4-6
4	Throwing handball ball (m)	26-28	29-31	29-30	25-27	27-29
5	Comprehensive exercises for field players and the goalkeeper (s)	32,0-34,5	35,0-36,5	36,0-38,5	33,5-35,5	26,5-28,5
6	30m distance running with stroke (s)	53,5-54,0	54,6-55,0	56,1-56,5	54,8-54,1	58,2-60,2
7	Exits at a distance of 66 m (s)	22,0-21,5	22,5-22,0	23,0-22,5	21,5-21,0	23,0-23,5

Conclusions

1. The traditionally existing preparatory-competitive process of training the handball players does not suit the majority (70%) of practitioners. The majority of coaches (85%) spoke about the need for sports and technical specialization of handball players on the playing field. Including (73%) of the specialist coaches, they expressed the need to develop a specialized training program for handball players of 12–13 years old in the Republic of Moldova.

2. The actual results of the motor capabilities of handball players of 12-13 year old, who have traditionally been involved in sports training, do not reach the proper level of their physical preparedness, which naturally reduces their technical, tactical and coordination capabilities with competitive manifestations. This fact indicates that the coaches in the educational process do not pay enough attention to the development of motor abilities, including with regard to their team-role specialization.

3. The technical abilities of handball players of 12-13 year old show that all actual technical test results do not meet their proper age criteria, due to the fact that the traditional technical readiness of handball players of 12-13 year old is flawed in the preparatory process, and primarily because of the imperfection of the training program material for this category of handball players.

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**DIRECȚII DE BAZĂ A REFORMĂRII PROCESULUI
PRĂTITOR AL JUCĂTORILOR DE HANDBAL ÎNCEPĂTORI
ȘI MODELUL CARACTERISTICILOR ROLULUI ACESTORA
ÎN ECHIPĂ**

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Cuvinte cheie: handbal; tipuri de activitate motorie; oportunități de coordonare; abilități motorii; specializarea jocuri în echipă; proces educativ; dezvoltare intelectuală; rol; modelare psihomotorie;

Rezumat: Acest articol prezintă informații științifice despre caracteristicile principalelor direcții de reformare a procesului pregătitor al handbaliștilor începători în formarea caracteristicilor modelului de joc. În același timp, trebuie menționat și faptul că în etapa actuală a dezvoltării într-un mediu social dificil, care impune cerințe speciale procesului pregătitor pentru sport, inclusiv celor intelectuale și fizice. În prezent, calendarul competițiilor s-a schimbat radical, a devenit mai dens și mai intens pentru echipele de diferite niveluri și vârste, cu cerințe ridicate pentru rezultatele competițiilor. Și la rândul său, acest lucru creează dificultăți în procesul pregătitor al sportivilor, permițând intensificarea excesivă a sesiunilor de antrenament, cu toate consecințele. La aceasta este necesar să se adauge material și suport tehnic extrem de inadecvat pentru sport, inclusiv în handbal. De aceea, considerăm că, în această situație, pentru îmbunătățirea pregătirii sportive a handbaliștilor, în etapa actuală, este necesară utilizarea altor rezerve posibile, care sugerează, pe fundalul proceselor generale pregătitoare, restructurarea căilor existente de organizarea de oportunități de jocuri, inclusiv la o specializare mai veche a jocurilor în echipă bazate pe vârstă a sportivilor, în care rolul lor, ca caracteristică sportivă și tehnică individuală, va fi deosebit de eficient în manifestările competitive