

Increase the level of preparedness of qualified basketball players in the preparatory period

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Purpose: to study the adaptation of basketball players of student teams to training loads during the preparatory period of the annual cycle of training on the parameters of motor qualities and functional readiness.

Material & Methods: conducted a survey of 12 basketball players on the team (Sumy, the highest league of the Ukrainian Basketball Championship). The following research methods were used: theoretical analysis of literary sources, methods of mathematical statistics, anthropometry and pedagogical control.

Result: dynamics of changes at the stage of preparation for the season is shown. It is established and observed that under the influence of training sessions in the examined basketball players, not only the optimization of the functional systems of their organism, but also the level of the functional state of the organism as a whole.

Conclusion: assessment of the functional condition of the athlete's body should play an important role in the overall system of medical and biological control in connection with significant additional information on the state of their body and the possibility of timely correction of physical activity and the provision of preventive measures. It is determined that during the preparatory period the level of motor qualities and functional readiness of the basketball players increased.

Keywords: basketball players, functional readiness, special working capacity, motor qualities, diagnostics.

Introduction

Training of professional athletes from any sport is the choice of an effective training strategy, organizational form, appropriate training methodology and other. Vital orientation to professional sports requires additional organization of the athlete's life in connection with the laws of achieving professional sports results. Preparation of an athlete for successful performance at competitions is an improvement of the functioning systems of the athlete's body: muscular, cardiovascular, respiratory and nervous, taking into account his natural capabilities.

In connection with the increase in motor and gaming activity of basketball players in training and playing, which are characterized by a continuous change in the actions of players, an unusual alternation of the phases of load and rest, problem of developing the level of special working capacity of qualified basketball players and the means of controlling it becomes especially urgent. An important factor that affects the special performance of a basketball player is the level of development of the athlete's functional systems and his motor qualities.

In the preparatory period, the process of increasing the special working capacity of basketball players largely depends on the correct selection and distribution of means and methods of training. For this it is necessary to have objective data on the level of preparedness of each player at the individual stages of preparation.

Purpose of the study: to determine the level of development of motor qualities and functional training of qualified basketball players in the preparatory period.

Material and Methods of the research

Methods of research: theoretical analysis of literary sources,

methods of mathematical statistics, anthropometry and pedagogical control.

12 basketball players of the team of the higher league of Sumy State University took part in the research. Role of players: center – three people, attackers – four, defenders – five people.

Athletes are examined regular check-ups, pedagogical tests, individual medical and pedagogical control.

Results of the research and their discussion

In modern basketball there is a tendency to increase in competitive and training loads [1; 2; 7]. Particular attention in the preparation of athletes, researchers and practitioners pay attention to the nature and content of the loads that are used in the training process [5].

In connection with this, the problem of optimizing all components of the training process arises sharply, the task of adequate functional training of players, capable of providing high special performance throughout the season. Solution of these issues only at the expense of increasing the volume and intensity of training loads is limited both by the biological capabilities of man and by social factors [9]. A feature of modern basketball is the growing intensity of the game and the tough athletic struggle on the entire court. These features are a consequence not only of rationalization of technology and tactics, but above all a higher level of special work ability of basketball players [6; 7].

According to V. N. Platonov, M. M. Bulatovoy, J. L. Kozina, L. V. Grin (2009), physical preparedness is characterized by the capabilities of the functional systems of the body of the athlete, providing effective competitive activity.

Preparatory period has its structure – stages, the work in which is aimed at improving general and special training, increasing the functionality of the basic systems of the body, development of physical abilities, the formation of technical, tactical and psychological preparedness, as well as to identify technical and tactical errors and their correction.

At each stage of the preparatory period, it is necessary to bring the basketball player's body to a new level and hold it for a certain period of time.

Preparatory period of the basketball team of Sumy State University (SSU) of the highest league of the championship of Ukraine began in August 2016. An important factor in the work of the coaching staff at the beginning of the preparatory period was the establishment of the level of functional preparedness of the players.

At the beginning of the study, the following parameters of athletes were determined: age (years), body length (cm), body weight (kg), body length with arms raised up (cm) and arm span (cm). Obtained resulting data are shown in Table 1.

During the pedagogical experiment, tests were conducted to measure the speed, strength and speed endurance of quali-

fied team basketball players SSU.

Motor qualities of basketball players were determined with the help of tests: standing long jump, upward jump, a throw of a ball from a sitting position, a run on 30 m. Speed capabilities of basketball players were checked with the help of a tapping test for 10 seconds, a run on 30 meters from flying start, a run of 60 m. Speed endurance was assessed with the help of such tests: "shuttle run" 4x30 m, 200 m run.

Diagnosis of the level of preparedness and functional capabilities of the studied athletes revealed the weaknesses and strengths of each basketball player and this allowed the formation of individual training programs – a further training process required the inclusion of exercise complexes to increase the level of power, speed capabilities and speed endurance.

Obtained data results of the study are given in Table 2 [8].

Functional preparedness at the beginning and at the end of the preparatory period was determined using the PWC₁₇₀ est with a measured physical load, Harvard step-test, Ruthier's test, Stange's and Genci's tests. Obtained data results of the study are given in Table 3 [8].

Conclusions

As a result of pedagogical testing, the indicators of the physical and functional preparedness of the SSU basketball team were obtained and tracked for their change during the preparatory period. It is determined that during the preparatory period the state of physical preparedness and physical performance of athletes improved.

Physical readiness of the qualified basketball team of the SSU team at the beginning of the preparatory period corresponded to the average of 50% of basketball players had satisfactory physical preparedness, 50% – good and excellent.

Table 1
Average values of age, body weight and anthropometric performance of a team of qualified basketball players SSU (n=12)

Indicators	\bar{X}	σ
Age	22,63	3,22
Body weight (kg)	82,25	8,72
Body length (cm)	192,25	7,13
Body length with arms raised up (cm)	244,25	7,24
Arm span (cm)	194,58	7,86

Table 2
Correlation between the results of the motor performance indicators of a qualified basketball players team SSU (n=12), %

Name of test		Evaluation		
		"Satisfactory"	"Good"	"Good"
Standing long jump	At the beginning of PP	8	25	67
	At the end of PP	0	33	67
Upward jump	At the beginning of PP	0	33	67
	At the end of PP	0	25	75
Throw of a ball	At the beginning of PP	50	33	17
	At the end of PP	25	50	25
Run on 30 m	At the beginning of PP	25	42	33
	At the end of PP	8	50	42
Tapping test 10 s number of movements	At the beginning of PP	25	25	50
	At the end of PP	8	33	59
Run on 30 m from flying start	At the beginning of PP	33	42	25
	At the end of PP	17	50	33
Run on 60 m	At the beginning of PP	50	33	17
	At the end of PP	8	59	33
"Shuttle run" 4x30 m	At the beginning of PP	33	50	17
	At the end of PP	25	58	17
Run on 200 m	At the beginning of PP	25	42	33
	At the end of PP	17	50	33

Note. PP – preparation period.

Table 3

Evaluation of the functional readiness of a qualified basketball players team SSU (n=12)

Tests, samples	Beginning of the preparatory period		End of the preparatory period		$\bar{X}_2 - \bar{X}_1$	Evaluation at the end of PP
	\bar{X}_1	σ	\bar{X}_2	σ		
PWC170, c.u.	2089,2	378,39	2196,5	352,92	+107,3	High
IHST, c.u.	91,10	2,68	93,29	3,12	+2,19	High
Ruthier's test, c.u.	4,23	0,44	3,59	0,59	-0,69	High
Stange's test, c.u.	82,30	10,22	84,41	11,61	+2,11	Above average
Genci's tests, c.u.	57,87	2,05	58,91	2,87	+1,04	Above average

Correction of the training process allowed improving the state of physical and functional preparedness, as well as the state of physical performance. Physical preparedness of qualified basketball players at the end of the preparatory period revealed the following: 25% – satisfactory preparedness, 75% – good and excellent. Physical performance of athletes at the end of the preparatory period was assigned to the functional

level of «good». It is determined that during the preparatory period the state of physical preparedness and physical performance of athletes improved.

Prospects for further research. In the future it is planned to develop model characteristics of the special preparedness of qualified basketball players in the annual macrocycle.

Conflict of interests. The authors declare that no conflict of interest.

Financing sources. This article didn't get the financial support from the state, public or commercial organization.

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Received: 20.07.2017.

Published: 31.08.2017.

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