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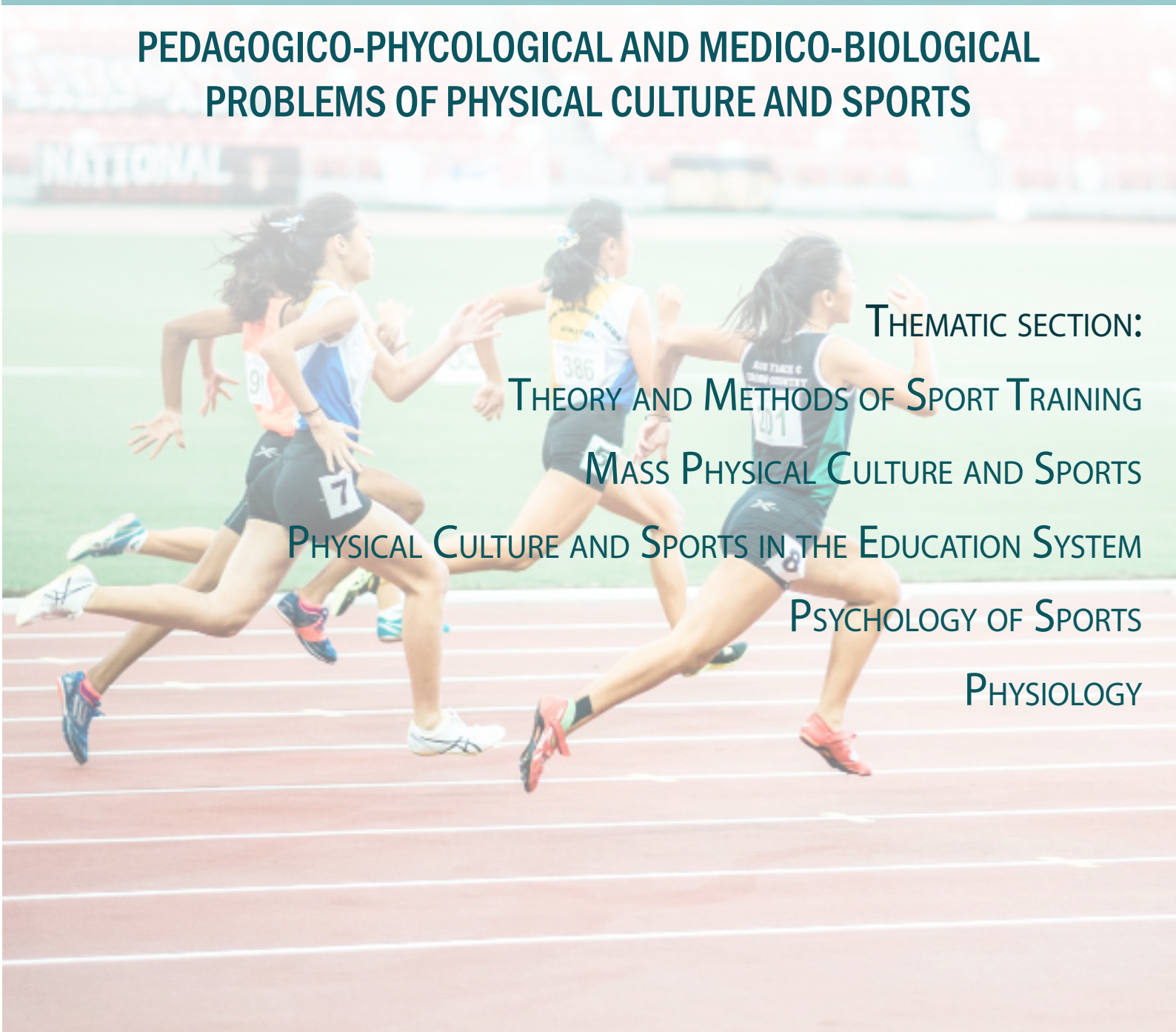
THEORY AND METHODS OF SPORT TRAINING

MASS PHYSICAL CULTURE AND SPORTS

PHYSICAL CULTURE AND SPORTS IN THE EDUCATION SYSTEM

PSYCHOLOGY OF SPORTS

PHYSIOLOGY



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Pedagogico-Phycological and Medico-Biological Problems of  
Physical Culture and Sports

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## RUSSIAN JOURNAL OF PHYSICAL EDUCATION AND SPORT

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### Pedagogico-Phycological and Medico-Biological Problems of Physical Culture and Sports

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## **Planning of the University student basketball team training sessions on the basis of taking into account the functional state of athletes by types of their temperament**

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**Abstract:** The article deals with the problem of improving the training of University student teams in basketball. It is noted that the success of the team's performance in competitions largely depends on the ability of each player to manage his mental state. In this regard, the study of the temperament types of players in the framework of their psychological training will contribute to the summing up of players to the highest level of readiness for competitions. **Materials and research methods.** The article presents the results of the athletes' functional state evaluation, including psychological status, by types of temperament. A comparative analysis of the team players "D&K-TEST" indicators, taking into account their belonging to the types of temperament, is carried out. **Results.** The algorithm of basketball team players mental readiness condition management on the basis of the players temperament types account is developed. The analysis of psychological and pedagogical means is carried out. An example of planning a weekly microcycle of basketball players with the use of additional funds created by additional difficulties in game situations is given. **Conclusion.** Means of psychoregulation can be implemented at different stages of the training macrocycle, but they must be systematized and used taking into account the individual characteristics of the players mental state.

**Keywords:** planning, basketball, functional state, mental state, types of timber.

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### **INTRODUCTION**

Modern competitive activity of universities national teams in basketball is characterized by an increase in speed, pace and quality of play, teamwork. According to experts, this is facilitated by improving the quality of specialists work in national teams through the search for various innovative methods of training. With the same preparedness of players, a high level of their mental readiness is required in the process of rivals interaction in stressful situations.

Planning of players psychological preparation taking into account types of temperament demands also an assessment of their functional readiness. The state of players mental readiness to overcome obstacles and difficulties requires expanding the range of functional and psychological preparedness. This problem is in the area of many scientists interest. Thus, V. A. Alatorstev (2009) notes the importance of the psychological readiness component for competitions in the performance of an athlete [1].

G. D. Babushkin (1996) highlights the improvement of the self-control quality in athletes

at competitions [2].

I. A. Grigoryants (2001) considers the problem of gymnasts' readiness for competitions [3].

D. R. Zakirov (2012) in his works emphasizes dependence of wrestlers functional condition on type of their temperament and various level of realizability during competitions [5].

G. A. Kamaliev (2010) considers the formation of mental readiness state as a condition not only for improving psychological preparedness, but also for increasing self-confidence [7].

A number of authors consider the functional training of athletes as a basis for improving the effectiveness of sports training [4,9,8].

Yu. Radchenko (2009) considers the relationship between psychophysiological functions and the time of technical actions performance in athletes, confirming the importance of sports training psychological components [10].

The use of psychological and pedagogical means in the training process of highly qualified athletes is represented by many experts.

Summarizing the above, we can conclude that the problem of psychological training in sports

is updated every year. It is connected, on the one hand, with increase of competitions importance, with another – with need to correspond to the level of competitive wrestling.

Assessment of the team players functional state, taking into account the type of their temperament, in our opinion, can be the basis for the formation of mental readiness effective state for successful competitive activity.

The purpose of this research was to consider the significance of the players functional state on the basis of the temperament types manifestation in the planning of training tasks.

### MATERIALS AND METHODS

The paper uses the results of the literary sources

Table 1-Evaluation of the basketball team players functional state according to "D&K-TEST" – testing (2017-2018 season)

The indicator "D&K-TEST"	The range of the individual changes in indicators « D&K-TEST", %	Type of temperament				
		phlegmatic choleric (introvert)	sanguine-choleric (intr)	Sanguine choleric (extra-intr-t)	sanguine-melancholic	Melanholik
ANAME	(+57)till(-57)	52.63	65.83	58	51.2	49.8
AME	(+33) till (-30)	215.76	216.6	214.5	211.9	201.3
OME	(+24) till (-30)	238.39	278.39	268.79	224.78	221.2
ANAME/ OME	(+43) till (-44)	20.37	25.57	25.43	23.98	20.37
AME/OME	(+21) till (-13)	73.63	79.63	79.63	76.83	73.45
MCF	(+63) till (-61)	48.77	51.77	50.77	45.67	43.67
MGL	(+46) till (40)	32.00	34.00	32.00	31.00	30.67
MPC	(+26) till (-23)	66.55	79.78	75.45	59.78	55.83
FS level	from 1 till 45 Points	25	37	39	25	22
Level the integral condition		average	High	High	Average	Mediocre

Note: ANAME-anaerobic metabolic capacity; AME-aerobic metabolic capacity; ANAME / OME-anaerobic utilization capacity; AME/ OME-aerobic utilization capacity; MCF - creatine phosphate power supply; MGL - glycolytic power supply capacity; MPC-maximum oxygen consumption; FS-functional state

According to the results of the preliminary study of the University basketball team players functional state, taking into account the type of their temperament, it was noted that they differ in the level of functional state and reserve capabilities of the organism. Depending on the type of temperament, it is noted that the indicators characterizing the energy resource of the players' body vary in the recommended ranges. The average level of the organism functional state anaerobic capacity in players of the phlegmatic-choleric type was noted (52.63 us. ed), which characterizes the mediocre level of readiness to perform training loads. The same pattern is observed in the types of temperament sanguine-melancholic (51,2 us.ed) and melancholic (49.8 us. ed.). The deviation from the individual model was up to 30% for the players. Aerobic metabolic capacity (AME) characterizes

the aerobic capabilities of players. In our studies, the minimum level of values showed sanguine-melancholics ( 211.9 us.ed) and melancholics (201.3 us.ed.).

### RESULTS AND DISCUSSION

Table 1 shows the indicators of the basketball team players functional state according to the "D&K-TEST" - testing (2017-2018 season).

Aerobic and anaerobic genotype of players is characterized by indicators of ANAME/ OME and AME/OME. The average level of these indicators in representatives of all temperament types was noted.

In sanguine-melancholics and melancholics, the minimum level of maximum oxygen consumption indicators at the maximum level of manifestation of the power of the creatine phosphorus and glycolytic power supply source was noted. Therefore, at these types of temperament at minimum values of aerobic possibilities manifestation power there is a tense work of these power supply systems as an indicator of a mental state intensity at stressful situations.

The representatives of the temperament type

sanguine-choleric (introvert) and sanguine-choleric (extra-introvert) are noted at high values of aerobic and anaerobic capabilities, the level of aerobic performance at maximum values of MCF and MGL, while regulating the efficiency of the aerobic and anaerobic power supply source use. The range of average values fluctuations remains at all representatives at one level-25-34%.

An important component of the University basketball team players successful psychological training is the formation of mental readiness effective state. When the coach is armed with indicators of functional state and indicators characterizing the reserve and adaptive capabilities of the body, it is much easier to monitor and assess the state of the player mental readiness and adjust the training effects.

It is known that the state of mental readiness before the game, if it is really combat readiness, contributes to the achievement of good gaming activity. But in practice, not all players reach a state of alert, as they experience the upcoming game differently. Taking into account this provision, it is required to simulate game situations and

plan training sessions of players with the creation of motor tasks inherent in the types of their temperament. This approach will contribute to the creation of an effective state of mental readiness and mental reliability. The main components of the state of mental readiness for the game are the need for sensations, well-being, activity and mood. The state of mental reliability can be formed depending on the manifestation of emotional and motivational stability, self-regulation, stability and noise immunity. The presented components of the state of mental readiness and reliability in representatives of different temperament types are manifested in different ways. The formation of these states in players, taking into account the types of their temperament, can lead to the creation of a cohesive team with effective playing bonds and teamwork between representatives of different temperament types.

Table 2 presents the results of the psychological and pedagogical tools analysis used for players of the country national teams, and noted the advantages and disadvantages of their use among University teams.

Table 2-Psychological and pedagogical means of different orientation for basketball players (according to Yu.M. Portnov, 1996)

Tools	Characteristic	Terms of implementation	Advantages	Disadvantages
Creating internal mental support for players	Aimed at building player confidence in his potential capabilities	Provided the player clearly has the strengths of preparedness	You can model game situations	The weaknesses of player training are not taken into account. Game tasks are created for all members of the game bundle.
Rationalization of funds	Characterized by an explanation of the player's emerging game situations, unfavorable to the player for regulation	In sports training at all stages	Requires the ability to detect symptoms of increased levels of arousal or apathy before the game	Not all players can adjust their state, as not everyone understands the mechanism of the state
Sublimation	Characterized by an action aimed at switching mental state	Implemented at all stages of preparation	Control of emotional state and sensations	The complexities of understanding the protective mechanism of the psyche
Desensitization	Use is unfavorable. game situation with the aim of repeated mental repetition	Taking into account the individual features of the players	Reduces the negative impact of factors	It is not suitable for players with weak nervous system
Decitation	Characteristics of rivals from their weaknesses	In the training process and at competitions	Taking into account the weaknesses and strengths of rivals	Can weaken the strong-willed qualities of players



The above means of psychoregulation can be implemented at different stages of the training macrocycle, but they must be systematized and used taking into account the individual characteristics of the players mental state.

A questionnaire survey conducted among the players revealed that psychological training is considered by them as a method of self-suggestion and motivation of everyone to achieve the performance of the game.

45% of players confidently noted that their success depends on the training program and effective implementation of game activity tactical

schemes. 23% of players emphasize that success depends on the interaction of team leaders with other players.

32% of players mainly in psychological preparation note strong-willed preparation, considering thus that realization of training tasks in the conditions of overcoming of obstacles and difficulties creates the atmosphere of high fight.

In this regard, the following is an example of planning the means of training sessions with the use of additional difficulties aimed at the formation of a high level of mental readiness.

Table 3-Training facilities, created additional difficulties in training sessions of basketball players

Exercises	The direction of the class	Methodical techniques	Action control
1. Playing in complicated conditions	Educating strong-willed qualities and confronting fatigue	Introducing a job not known to players	Changing player mood
2. Playing with a reduced number of players	Raising self-confidence	Complicating the playing conditions	Player interactions
3. Game exercise on speed of movement	Educating speed qualities	The development of speed qualities	Psychological resilience
4. Switching the game on the coach's command from defense to attack with a simulated game situation	Gaming compatibility	Changing the conditions of the game situation	Composure
5. Removing the strongest players from the game	Improving the reliability of self-control	Changing the conditions of the game situation	Sustainability and reliability
6. Playing with frequent player replacements	Psychological readiness and resilience	Changing the conditions of the game situation	Switching attention
7. Improving interaction options in the links, in attack, in defense, in a state of fatigue	Forming a state of mental readiness	Changing the conditions of the game situation	Increased psychological resistance to stress
8. Performing mathematical tasks on the coach's team during the game	Intensity of attention and operational thinking		Answer accuracy

An example of the national basketball team training weekly planning, sharpened in view of the above provisions and presented psychological and educational means of training (table 4).

In the course of such a microcycle, players recover from the game and prepare them for the upcoming competitions. The use of psychoregulatory agents, taking into account the types of players temperament, allows timely correction of their mental readiness state. This approach allows to maintain a high and

stable level of each player mental reliability.

### CONCLUSION

Planning training sessions of players taking into account the type of their temperament allows to control the intensity of the training process. Increasing the intensity of training loads, on the one hand, brings them closer to the competitive level, on the other-can lead to a decrease in physical performance and intensity of psychological processes.

Table 4 - An example of a week-long post-competition training plan

Weekly microcycle	The content of the training sessions
Monday	Recovery activities after the game taking into account the types of the players temperament. Psycho-regulatory training: questionnaires to study sensations after the game, auto-training, performing a set of exercises for relaxation.
Tuesday	Technical-tactical training Speed-strength work in the form of circular training Analysis of each player's game
Wednesday	Aerobic training (running with change of direction and running conditions)
Thursday	Training game, aerobic ability training, running on stairs
Friday	Aerobic training. The game with repetition and play of standard game situations taking into account the types of the players temperament (for each formulated its own situation)
Saturday	Preparation for the game Analysis of game situations acceptable to the mental state of the players

Evaluation of the functional state of the basketball team players, according to the "D&K-TEST"-testing, shows the range of the studied indicators individual fluctuations within the normative boundaries. Depending on the type of temperament, it is noted that the indicators characterizing the energy resource of the players' body vary in the recommended ranges. The state of mental readiness is influenced by the functional state and genotype of players' energy resources.

Means of psychoregulation can be implemented at different stages of the macrocycle of training, but they must be systematized and used taking into account the individual characteristics of the players mental state. To plan training sessions aimed at improving the effectiveness of players psychological training before, during and after the competition, it is necessary to identify the attitude of the players to the use of various psychoregulatory means.

Planning means training sessions players of different temperament types with the use of additional difficulties contributes to the formation of a high state of mental readiness.

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