



# Methodological and scientific support for student sports teams

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## Abstract

**Objective of the study** is aimed at confirming the effectiveness of the psychological support provided to the women's volleyball team by the coaching staff to improve the performance of the game.

**Methods and structure of the study.** An anthropometric profile of the "typical" player of the University team and, in general, the teams participating in the first league of the Russian Championship has been created. Testing of the sports team was organized and carried out. The technique used by a psychophysiologicalist when working with athletes is described. A set of measures has been developed and implemented for the psychological and psychophysiological support of the team.

**Research results and conclusions.** The use of a team approach in the training of the women's volleyball team demonstrated a clear correlation with improved results at district and national competitions. The practice of the coaching staff and a psychologist working together with a team consisting of candidates for the Master of sports has proven its effectiveness, which is confirmed by the successful performances of the university team in the 2023-2024 and 2024-2025 seasons. This conclusion is supported by comparing the performance results of this team with the achievements of teams that have undergone similar training in the same region. The data obtained can be applied to work with semi-professional volleyball teams in regions where there are no super league teams in sports schools and Olympic reserve schools.

**Keywords:** *psychological support, women's volleyball team, improvement of game performance, psychology, psychophysiology, team approach, training process, competition results, teamwork.*

**Introduction.** Many athletes who are part of the "elite" of sports cannot imagine working for results without the help of a team of coaches, doctors, physiologists, media professionals, administrators and psychologists. According to recent years, the most successful athletes in Europe have been working with sports psychologists since childhood, and this has become the norm for the current generation of champions [3].

In individual sports, 5-7 "narrow" specialists interact with athletes simultaneously in the training process, and they are also necessarily accompanied by a physiotherapist, sports physiologist and psychologist.

Admission to training sessions, competitions and physical activity in general is regulated at the legislative level by the provisions of the Order of the Ministry

of Health No. 1144. Since 2022, a psychologist / psychotherapist has been included in the list of specialists who give an opinion on the admission of a child athlete to training and competitive activities. The need for psychological support is increasingly a request from parents of young athletes who must not only withstand physical stress during training, survive age crises, but also combine educational activities with competitive activities, and realize their needs in communicating with peers.

**The purpose of the study** is to substantiate the effectiveness of the methodology of psychological support of the women's volleyball team by a team of coaches in improving the team's game results.

**Methodology and organization of the study.** An anthropometric passport of the "average" player of



the University team and, in general, teams of the first league of the Championship of Russia was compiled; testing of the sports team was organized and conducted, the methodology of the psychophysiological work with athletes was described, a set of measures for working with the team in the field of psychology and psychophysiology was developed and tested.

**Results of the study and their discussion.** In the practical part of the work, the authors identified three stages. At the first stage, the anthropometric data of the players of the University women’s volleyball team was collected. The team trains at PetrSU from September 2023 to May 2025. The study involved 17 players of the control team aged 16 to 40 years. The data for comparison was obtained from 23 teams of the first league of the Russian Championship from 20 regions, the data of 306 players were analyzed. Direct testing of the Karelian team players was carried out at the psychological and pedagogical laboratory of the Institute of Physical Culture, Sports and Tourism using the equipment of the ANO “Center for Innovations in Physical Culture and Sports of the Republic of Karelia” The team competed in district and all-Russian competitions in two seasons. Based on the results of performance in district competitions – the qualifying stage of the Russian Championship among teams of the first league in the Northwestern Federal District, the team progressed from third to first place, and in the 2024-2025 season showed the 6th result in the final of the Russian Championship<sup>1</sup>.

The table shows the anthropometric data of the team in the 2024-2025 season, as well as the ratio of the number of players by position in the teams.

The average indicators of a “universal player” in the University team/team of the Russian First League

Championship are as follows: average height of players is 174.5-175.33 cm; average age is 20-24 years.

Having analyzed the data of the almanac of the Russian Championship among women’s teams of the first league in the 2024/2025 season, we can conclude that PetrSU players are standard players according to anthropometric data – they do not have an advantage in height and age. It can be noted that the diagonal player significantly exceeds the average age with a 5 cm advantage in height. From the general statistics, we can highlight the short stature of the setters, which affects the pattern of the game.

At the second stage of the study, the authors conducted a functional diagnosis of the players. During the research, aerobic endurance was studied using the 12-minute Cooper test. To determine speed-strength endurance, the authors used the “Wingey test”, repeated sprints with short rest and a vertical jump test.

Muscle strength was determined by dynamometry using an electronic dynamometer, the upper and lower limbs, their peak and average isometric strength, as well as symmetry between the limbs, imbalances between agonists and antagonists were examined.

During the study, the authors studied dynamic and static coordination using the “Functional screening of movement” method, the “Y balance” test. The cardiovascular and autonomic nervous system were assessed by assessing the variability of the heart rate at rest and during an orthostatic test in two varieties, from a sitting and lying position [2]. The psychological diagnostics block included determining the personal characteristics of the athletes, motivational features and current states reflecting their readiness to work in non-standard situations, at the peak of their strength and in the conditions of a “foreign” gym. One of the methods for assessing athletes was a screening method called the abbreviation “KOMPAS”: “Categorical assessment of the mental strength and adaptability of

<sup>1</sup> Spectator boom at the Tomsk Arena. First League final for women / [Electronic resource] // All-Russian Volleyball Federation: [website].

*Comparative table of anthropometric data of players and team rosters*

Role	Average height, cm		Average age, years		Player ratio, %	
	PetrSU	LCh	PetrSU	LCh	PetrSU	LCh
Blocking	178,5	180,4	22	20	23,5	23,6
Diagonal	183,0	178,7	28	19	11,8	13,7
Outside hitter	176,8	176,1	23	20	23,5	30,7
Libero	167,0	167,3	22	19	17,7	14,4
Connecting	164,8	174,2	24	20	23,5	17,6



an athlete". The assessment consists of 9 scales: coping with unpleasant thoughts and emotions, activation and relaxation skills, involvement and "flow", visualization, self-efficacy, planning, activity under stress, relationships with the coach, demotivation.

The third stage of the study was the development of a method for interaction with the players by the coach-psychophysiologicalist in order to bring the players of the main team and the nearest replacement into optimal psychological shape by the start of the main competitions. At the same time, the technical and technical-tactical training coach worked taking into account the test results and analysis of the data from the second stage. The team psychologist begins his work with the use of psychodiagnostic methods that help to identify the athlete's strengths and weaknesses, as well as methods for identifying the current state during important training and competition stages. This is not just data collection – it is a map on which risk zones and growth points are marked. Individual and group work is built on the basis of diagnostics [1].

The psychologist's task is not to suppress inevitable conflicts, but to direct them in a constructive direction. For example, comparing a team with a sailboat: "If the rowers are synchronous, you are moving towards the goal even against the wind. If not, you spin in place, no matter how much effort you spend." The main trainings at this stage are: team building training to strengthen cohesion and trust in the team, communication training to improve interaction, conflict resolution training to be able to constructively resolve disagreements. It can be said that specialists working with the team must find a compromise between constant pressure and the requirement to get a result ("Faster! Higher! Stronger!") and maintaining a stable state without the

effect of "not losing". Sports psychologist V. Sofronov formulated the solution to this problem very figuratively and succinctly: "The psychology of victory is formed by the psychology of the winner, and not vice versa."

**Conclusions.** The effectiveness of the joint work of the coach and psychologist with the team of candidates for master of sports was confirmed by the results of the university team's performance in the 2023-2024 and 2024-2025 game seasons, as well as a comparison of the results of the team's performance at competitions with similar training in the same region. The dynamics of the team's achievements over three seasons using the team's brigade method of training the team showed positive growth, which is a weighty argument in favor of the team's brigade work of specialists with the team. The developed technique makes it possible to achieve the goals set for the team, taking into account the needs and readiness of individual players both within one season and throughout the long-term training of the team.

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