

Scientific and methodological support of training athletes of Russian national teams: yesterday, today, tomorrow

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Abstract

Objective of the study was to determine ways to improve the system of scientific and methodological support for the training of high-class athletes.

Results and conclusions. On the basis of a theoretical analysis of publications, the authors update the discussion in the field of improving the scientific and methodological support for the training of athletes of the Russian national teams. The argumentation of the opinion that there are no grounds for creating new structural divisions and organizations that duplicate the activities of the Center for Sports Training of Russian National Teams, the leading research organization in the field of elite sports, is given.

Keywords: *scientific and methodological support, methodological assistance, training and competitive loads, functional diagnostics, methodological commissions, level of physical performance, management of the training process.*

Introduction. Currently, the problems associated with the organization and improvement of the system of scientific and methodological support (SMS) for highly qualified athletes are multifaceted and require attention from both scientists and practitioners. In this regard, a collegial discussion of topical issues of improving the SMS system becomes relevant, which should be carried out among specialists with experience in methodological work and conducting exploratory scientific research in the field of elite sports.

Objective of the study was to determine ways to improve the system of scientific and methodological support for the training of high-class athletes.

Results of the study and their discussion. As one of the directions for further improvement of the system of scientific and methodological support, it is proposed to create a scientific center for sports at the federal level as a structural unit on the basis of an educational or scientific organization subordinate to the

Ministry of Sports of Russia, with the formation in the future of a network of scientific centers in the structure of research and higher educational institutions [1].

Without denying the rational grain in the proposal to create a scientific center for sports, nevertheless, it is worth noting that the Ministry of Sports of the Russian Federation already has a Federal State Budgetary Institution "Center for Sports Training of Russian National Teams", which was established on December 7, 1999 by order No. 241 Ministry of the Russian Federation for Physical Culture, Sports and Tourism. In accordance with this order, the FSBI "STC" was entrusted with the task of resuscitation of the Institute of Integrated Scientific Group (ISG) and the revival of the lost system of integrated control and methodological support for the process of training highly qualified athletes.

Currently, on the basis of the FSBI STC, the Department of Scientific and Methodological Support operates, the priority areas of which are:



1. Methodological assistance to the coaching staff in developing annual and multi-year training plans based on the systematization of quantitative indicators of training and competitive loads performed by athletes over the past 10 years and stored in the analytical archive of the Department of Scientific and Methodological Support.

2. Methodological assistance to the coaching staff in developing models for the annual and long-term dynamics of the level of physical fitness of athletes based on the analysis and systematization of functional diagnostics indicators, carried out in the laboratory of the FSBI STC over the past 10 years.

3. Methodological assistance to the coaching staff in the development of electronic forms for recording training and competitive loads, as well as protocols for functional diagnostics, in accordance with modern trends in the dynamics of loads in elite sports and the requirements for the level of preparedness of athletes.

4. Conducting at the beginning of the preparatory and at the end of the competitive periods of methodological commissions, the results of which are drawn up in the form of an official certificate and reported to the expert council of the Ministry of Sports of the Russian Federation. The purpose of the methodological commissions is not only to identify problems in the field of the system of scientific and methodological support for national teams, but also to provide methodological assistance from the specialists of the Sports Training Center in resolving them. Thanks to this form of interaction between the coaching staff and members of the methodological commission, the specialists of the Sports Training Center have up-to-date information on the problems of the scientific and methodological support system, which, if necessary, allows us to accurately formulate the topics of applied research for each team for scientific and educational institutions. In addition, on the basis of the information received, several times a year, specialists of the Department of Scientific and Methodological Support hold round tables with the involvement of the coaching staff of national teams, as well as coaches from the sports reserve, where they discuss ways to solve the problems that were raised during the methodological commission.

5. Monitoring the implementation of training loads and assessing the level of physical performance of athletes, with the preparation of appropriate analytical reports that allow the coaching staff to make more informed decisions on managing the training process.

6. Preparation of analytical reports to the management of the FSBI STC on the probabilistic risks of failure by one or another team of the planned results at the main starts of the season.

For the effective implementation of the above areas of work, the structure of the Department of Scientific and Methodological Support includes four leading departments: "Department for organizing events of the system of scientific and methodological support", "Department of strategic planning and forecasting", "Department of operational information processing", "Department of methodological support and sports information. Thanks to this structure, the process of implementing the tasks of scientific and methodological support, starting from the preparation of documents for planning loads and the dynamics of the state of athletes and ending with the control of the course of the training process, is a technologically closed cycle, localized at the level of one organization - STC "Russian National Teams". In addition, it should be noted that the Sports Training Center is the employer of all coaches and athletes who are in centralized training, which simplifies the process of obtaining from the coaching staff all the necessary documentation for planning and monitoring the training process.

This year, the FSBI "STC" plans to provide scientific and methodological support to the sports teams of the Russian Federation in 49 Olympic sports (35 summer and 14 winter) with the help of 56 complex scientific groups. At the same time, the number of surveyed sports will increase by seven types, and the number of events within the framework of the state task will increase from 265 to 299.

A large amount of work of the FSBI "STC", implemented in the preparation of the national teams of the country, is estimated by a fairly high end result. In this regard, it can be argued that at present there are no grounds for creating new structural units and organizations that duplicate the activities of the STC.

At the same time, the experience of scientific and methodological support for the training of members of the national teams of the Russian Federation, accumulated over the past decade by the staff of the FSBI "STC", suggests that there are certain gaps and shortcomings both in the regulatory framework for the organization of scientific and methodological support, and in its practical implementation. members of the Integrated Research Group. At the same time, taking into account modern realities, it can be stated that today it is possible to reasonably carry out a correction



of the existing organizational forms of work of the Integrated Scientific Group and programs of scientific and methodological support, fixing them at the legislative level by the relevant orders of the Ministry of Sports of the Russian Federation. Such work will make it possible to correct the technologies for obtaining and analyzing data from laboratory and field surveys, develop algorithms for the preparation of practical recommendations and carry out purposeful work to train personnel to work as members of the ISG of combined teams.

To improve the quality of work on scientific and methodological support, we present a set of measures that, in our opinion and the accumulated many years of experience, will improve the efficiency of the system of scientific and methodological support for Russian national teams:

1. It is necessary to formally approve the rights, duties and job descriptions of the head of the Integrated Scientific Group.

2. It is necessary to reconsider the daily funding of ISG employees for business trips across the territory of the Russian Federation and the wages of employees providing scientific and methodological support.

3. It is necessary to ensure the renewal of the material and technical base for laboratory and "field" examinations on the basis of the STC and as part of training events, as well as at federal sports bases and in subordinate universities of the Ministry of Sports of the Russian Federation involved in scientific and methodological support.

4. It is necessary to develop proposals for improving the legal framework that regulates the relationship between STC specialists and sports federations within the framework of scientific and methodological support.

5. It is necessary to ensure the digitalization of all data related to scientific and methodological support and received by various departments of the Department of Scientific and Methodological Support of the FSBI STC. Approve uniform protocols for functional diagnostics of athletes in laboratory conditions for each sports specialization.

6. It is necessary to create a subdivision of biochemical and medical monitoring of athletes' tolerance to training and competitive loads within the framework of the Department of Scientific and Methodological Support of the STC.

7. It is necessary to develop an algorithm for interaction between the FSBI STC and scientific and educational institutions in resolving the issue of training or retraining specialists in the field of scientific and

methodological support, while using the Department of Scientific and Methodological Support of the STC as a platform for students and students planning to work with Russian teams.

8. It is necessary to create and approve mechanisms for interaction between the STC and scientific and educational institutions in resolving issues related to conducting applied scientific research in the field of scientific and methodological support.

9. It is necessary to develop logistics, organize and implement a system of measures and procedures for the comprehensive recovery of athletes after training and competitive loads within the framework of scientific and methodological support.

10. It is necessary to develop individual and general recommendations for teams on the organization of general and special nutrition for athletes of all specializations, including on the basis of in-depth biochemical control.

Conclusions. In conclusion, I would like to note that the system of scientific and methodological support for the training of athletes of the Russian national teams is currently imperfect and requires certain technological and managerial modernization. At the same time, in our opinion, the increase in the effectiveness of the functioning of the system of scientific and methodological support is not determined by the change of one leading organization that provides methodological support for the process of training athletes in the face of the Federal State Budgetary Institution "STC" to another, educational or scientific organization. More constructive is the improvement at the legislative and technological level of the process of interaction between the FSBI "STC" and various scientific and educational institutions, both in terms of monitoring the level of preparedness of athletes, their physical health, and in the field of applied scientific research, in terms of scientific methodological support. In this case, the joint work of FSBI "STC" specialists who work directly with the coaching staff of national teams and federations, scientists from various research institutes and universities with the necessary scientific knowledge and experience in conducting research work, will create what was invested in the USSR in the concept of integrated scientific group.

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