



Science without borders: from the icy expanses of the North to Chinese megacities

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Abstract

Objective of the study is to analyze and summarize the research conducted within the framework of the scientific school on the problems of physical culture and sports in the Sakha Republic.

Methods and structure of the study. An analysis of scientific and methodological literature, a method of comparison and contrast, theoretical analysis and analytical review of scientific publications and the results of intellectual activity obtained within the framework of the scientific school of the Republic of Sakha were conducted.

Results and conclusions. From 2011 to 2025, research on the theory and methodology of training athletes in mas-wrestling, Thai boxing, basketball, golf and athletics was carried out within the framework of the FKIS scientific school in Yakutia. In addition, the history and development of the Yakut national wrestling khapsagai, as well as issues of ethnopedagogical education of a healthy lifestyle and recreational physical culture were studied. During this period, seven dissertations were defended, including six candidate's and one doctoral dissertations, in specialties related to the theory and methodology of physical education, sports training, general pedagogy and the history of pedagogy.

Keywords: *scientific school, Sakha Republic, dissertation, results of intellectual activity, theory and methods of training athletes.*

Introduction. At the present stage of development of theory and methodology of sports, the training of highly qualified competitive, creative specialists regularly engaged not only in educational and coaching, but also in scientific activities, working in higher educational institutions of physical education profile remains relevant. Involvement in scientific research, search for new problems and ways to solve them are becoming more and more difficult every year due to the extensive accumulated experience of domestic and foreign leading specialists in the field of physical education and sports [2].

Historically, in the largest and coldest subject of Russia, located in the Far North – in the Sakha Republic, interest in scientific research in the field of physical education and sports is concentrated in two higher educational institutions – IPCSSVFU named after M.K. Ammosov and ChGIFKIS, which is confirmed by regular publications in scientific journals of the Russian Federation, obtaining patents for utility models and inven-

tions. Thanks to scientific mentors, a new generation of scientists is involved in the world of science, defending dissertations. However, the number of scientific schools headed by mentors from local residents does not show positive dynamics every year.

Over the past 15 years, the school of Doctor of Pedagogical Sciences, Professor I.A. Cherkashin has borne fruit in the form of new candidates and doctors of science. The study of scientific directions and research conducted under the supervision of the professor in the Republic of Sakha and beyond its borders – in the PRC, over the past 15 years will allow us to identify the priority areas of this school. Professor I.A. Cherkashin turns 55 this year.

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comparison and contrast, theoretical analysis and analytical review of scientific publications and the results of intellectual activity obtained within the scientific school of the Republic of Sakha were conducted.

Results and conclusions. In 2016, one of the first dissertations on mas-wrestling in specialty 13.00.04 was defended under the supervision of Doctor of Pedagogical Sciences, Professor I.A. Cherkashin (on the same day, two applicants from the Sakha Republic, A.A. Zakharov and E.P. Kudrin, defended their dissertations on mas-wrestling in the Dissertation Council of the Moscow State Academy of Physical Culture and Sport). Since 2011, this defense was preceded by E.P. Kudrin's research under the supervision of a scientific supervisor, aimed at developing technical and tactical actions of qualified athletes in mas-wrestling using technical equipment. A methodology for developing technical and tactical actions was developed, the "Lower Pull" simulator was modified for the parallel development of technical and tactical actions and physical fitness, for which a patent for a utility model was obtained, and criteria for assessing the development of technical and tactical actions of qualified athletes in mas-wrestling were developed [4].

During the same period, P.P. Okhlopov conducted research on the problem of physical training of athletes in Thai boxing at the training stage, as a result of which a combined test was developed to determine the level of SFPTi of qualified athletes, a methodology for the integrated assessment of FPTi, which includes a set of pedagogical tests, differentiated assessment scales, an algorithm for testing and identifying the level of preparedness of athletes; a methodology for the physical training of athletes of light weight categories in Thai boxing was developed, a patent for a utility model was obtained. The result of this research was the defense of the dissertation of P.P. Okhlopov under the supervision of I.A. Cherkashin in 2017 [7].

From 2015 to 2020, under the supervision of the professor, scientific research is being carried out on the development of the Yakut national wrestling hapsagay and the implementation of the historical and pedagogical experience of practicing this sport in the modern practice of physical education. In this direction, I.I. Druzyanov defended his dissertation in 2020. The research made it possible to specify the conditions for the development of the hapsagay wrestling, which include natural and climatic, ethnic, historical ones, and also determined the place of the hapsagay wrestling in the physical education of students, as a combat sport with its own customs and traditions, occupying one of the

leading positions in the ethnopedagogy of the Sakha people; the main ways of developing the hapsagay wrestling were outlined [3].

A year later, another representative of the Sakha people, S.I. Gavriliev, defended his dissertation, whose research, under the supervision of I.A. Cherkashin, was devoted to the issues of organizing health-improving classes with elements of tennis for men aged 40-49. In the period from 2015-2021, research was conducted on health-improving physical education: the structure and content of the program of health-improving physical education classes using elements of tennis for men aged 40-49 were developed, aimed at correcting their physical condition, taking into account the level of physical and functional fitness; Differentiated scales for assessing the physical fitness of men aged 40-49 years have been developed, which make it possible to increase the effectiveness of monitoring those involved, determine the level of general and special physical fitness and heart rate variability indicators of men aged 40-49 years, for which certificates of database registration have been received [1].

In the field of health-improving physical culture, research was conducted by a graduate student from the PRC, Huang P., who defended his dissertation in 2022. He studied the effects of martial arts on the physical condition of mature men who lead a sedentary lifestyle and are overweight and obese. The positive effect of the integrated use of Muay Thai elements, strength exercises, and Tai Chi Qigong in the training process of men aged 40-60 who lead a sedentary lifestyle on heart rate variability, general physical fitness, body composition, and the risk of sudden cardiac death in those involved was determined [8]. Another representative of the Celestial Empire, Cai Ch., who devoted her research to women's sports, in particular the training of female athletes in Thai boxing, taking into account the characteristics of the female body, defended her dissertation in 2023 in specialty 5.8.5. During 2019-2023. The applicant conducted research to determine the heart rate variability indicators in female athletes at rest and after exercise, to identify the features of the external respiration function, as well as the SFPTi indicators in different phases of the OMC in the annual training cycle; the author developed a basic mesocycle in the preparatory period, taking into account the features of the cardiovascular, autonomic nervous systems, external respiration function, SFPTi in different phases of the OMC of female athletes [9].

In the period from 2018 to 2025, graduate students from the PRC under the supervision of Professor I.A.



Cherkashin conducted scientific research aimed at studying the pedagogical features of the use of Tai Chi Chuan in the training of amateur basketball players to improve the effectiveness of throwing the ball into the basket, increasing the effectiveness of the general physical training of children involved in golf at the initial stage, finding ways to improve physical fitness, functional and psychophysiological state of 400 m runners using oriental breathing practices. The results of the above studies are reflected in scientific articles of leading domestic and international scientific journals [5, 10, 11, 12]. It should be noted that in 2022, N.P. Olesov defended his doctoral dissertation in specialty 5.8.1. on the topic "Ethnopedagogical system of education of a healthy lifestyle of students: concept, model and practice (on the example of the Republic of Sakha (Yakutia))" [6, 7].

Conclusions. Within the framework of the scientific school on physical education and sports in the Sakha Republic for the period from 2011 to 2025, studies were conducted on the theory and methods of training athletes in mas-wrestling, Thai boxing, basketball, golf, track and field, on the history of the formation and development of the sport – Yakut wrestling hapsagay, the ethnopedagogical system of education of a healthy lifestyle of students and health-improving physical culture. Such aspects of sports training as technical and tactical actions of mas-wrestlers using technical means, physical training of qualified athletes in Thai boxing and children involved in golf, the use of Tai Chi Chuan to improve the effectiveness of throwing the ball into the basket and the oriental breathing practice "Baduanjin" to improve the functional capabilities and psychophysiological state of 400 m runners, planning physical activity taking into account the physiological characteristics of the female body in the mesocycles of training were studied. Based on the results of scientific activity, 7 dissertations were defended in scientific specialties 13.00.04, 5.8.5, 5.8.1.

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