



The boundaries of pedagogical research in the realm of «Physical education for students» the emphasis of the articles in the journal «Theory and practice of physical culture»

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Abstract

Objective of the study was to delineate the boundaries of pedagogical understanding in the area of «physical education for students» through a comprehensive review of empirical studies published in the journal «Theory and Practice of Physical Culture».

Methods and structure of the study. A comprehensive analysis of articles published in the journal «Theory and Practice of Physical Culture» between 2020 and 2024 was conducted. The analysis sought to answer two questions: 1. What pedagogical phenomena in the field of physical education of students are discussed in these articles? 2. Which pedagogical technologies in the field of physical education of students have been proven to be effective and are among the top 10% in terms of their impact?

The final database for the first question includes 27 articles, while the second question was answered based on 41 articles, which included empirical data with significant content.

Results and conclusions. The research paper delineates the boundaries of pedagogical expertise in the realm of physical education for students, as exemplified by the articles published in the journal Theory and Practice of Physical Culture. These boundaries encompass the following aspects: The concept of health promotion, which encompasses health preservation, health enhancement, and health development. The humanistic approach to improving the physical culture of students, emphasizing the importance of personal growth and self-actualization.

The existential perspective on physical education, which prioritizes individual choice and autonomy. Innovative educational approaches in the field of physical education for students. Local research initiatives in specific areas of physical education, which may not receive widespread attention due to their limited impact.

The study is a relevant account for establishing a fresh publishing strategy for the TPPC magazine, encompassing the advancement of scholarly material in the realm of physical culture and sports, and serving as a blueprint for exploring diverse facets of sports science.

Keywords: *frontiers of pedagogical science, students, physical education, journal «Theory and Practice of Physical Culture».*

Introduction. Physical education at the university is the most important vector for solving the problems of training a specialist. The social order for a healthy, psychophysically prepared and competitive graduate acts as a guideline in this sense and helps to determine the areas, the implementation of which is in the discipline sector of the Physical Education block. In accordance with the "Strategy for the Development of Physical Culture and Sports in the Russian Federation" for the period up to 2030, one

of the priority areas of higher education for students is the formation of:

- a culture and values of a healthy lifestyle;
- skills and abilities in the field of physical culture and sports;
- a system of motivation of various categories of the population for physical development and a sporty lifestyle;
- a pool of opportunities for self-realization in the field of physical culture and sports;



- a system of sports training for young people, as well as conditions for the development of student sports.

Strengthening the health of student youth by creating conditions for a conscious attitude to it, improving the physical culture of an individual based on independence and initiative are the main tasks of general physical education. Physical education is implemented conditionally in a three-dimensional coordinate system:

- healthy students who have the opportunity to improve in the field of physical education and sports (the main health group);
- students who have minor deviations in health, the purpose of classes is general physical, professional and applied training, and psychophysical readiness for gradual transfer to the main group for classes;
- students who have significant limitations in health, they are enrolled in a special medical group and are engaged in partial programs aimed at restoring impaired body functions, as much as possible in the current state of health.

In essence, in the first two, the focus of educational activities is physical education and sports, in the third - health and adaptive physical education, adaptive sports.

The journal «Theory and Practice of Physical Education» is an outstanding, unique phenomenon in the history of not only Soviet, and then Russian, but also world physical education and sports periodicals. The origins of the journal date back to 1925, when for the first time in the arena of world physical education and sports science, the «Collection of Scientific Papers and Articles on Physical Education Issues» was published, dedicated to the problems of physical education of the broad masses of workers. Later, in 1966, it was transformed into a scientific and theoretical publication. In 1968-1986, the topical section «Physical Education of Student Youth» was formed, which covered issues related to the education, upbringing and health improvement of this category of the population. The demand for this section is evidenced by the number of works published during this period - more than 550 articles [2, 4]. Today, the section has practically retained its name and direction «Physical education of children, adolescents and youth», in each issue from 3 to 8 articles. The authors consider «burning» issues of theory and methodology, organizational aspects of the implementation of modern, innovative methods in such areas as: physical education; physical culture; sports; health and adaptive physical culture (sports).

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Results of the study and discussion. The term «frontier» has historically been defined as the boundary between «developed and undeveloped lands» (F.J. Turner, 2009), and is currently interpreted as a zone of development of an object of knowledge. In some scientific communities, frontiers are considered the «cutting edge of science» [5]. In this study, the following understanding of this phenomenon was adhered to: «the frontier of science» is defined as the study of scientific research topics related to the first 10% in the ranked series of distribution by level of significance for the previous year and characterized by a value of the significance index for this year that exceeds its average value over the past five years.

At the first stage of the work, the frontiers of pedagogical science were identified based on the neural network data: «Anthropology» studies the issues of education, upbringing and development of a person throughout his or her life. «Pedagogy of informal education» refers to the study of non-traditional methods and ways of teaching and upbringing. «Special pedagogy» deals with the issues of education and upbringing of children, adolescents and young people with physical and psychophysiological disabilities. «Philosophy of education/upbringing» is associated with identifying the role of philosophical teachings for understanding the essence of education, determining the ideology of education and upbringing, analyzing the main conceptual approaches to defining the goals of education and ways to implement them.

Further, the work reviewed trends in the field of physical education of students and found that the greatest publication activity is observed in the follow-



ing topics, presented in descending order of the number of articles:

- «Integration of modern educational technologies», which considers the problems of using digital resources and introducing interdisciplinary methods in physical education of students to increase the level of student involvement in physical education classes. Health-saving, competitive and information and communication technologies are popular today.

- «Individual focus of the educational process». This topic of articles is aimed at revealing and taking into account the characteristics of the student's personality, increasing pedagogical attention to his educational needs and requests in the process of physical education. In particular, most studies focus on the development of various individual training routes.

- «Free choice of the type of motor activity». The articles consider the methods and forms of organizing independent classes in motor activity with an emphasis on the formation of motives and taking into account the life plans of students, which is important in developing a positive attitude towards physical education and their own health.

- «Professional and applied physical training», which combines works devoted to identifying and developing a base of key motor skills, psychophysical abilities and professional competencies for the future career of graduates of various specialties used in organizing specialized practical classes.

At the second stage of the work, it was determined that the greatest publication activity is noted in the direction of «Physical Education» – 51 articles, followed by «Physical Culture» – 35 articles, the direction of «Health-improving Physical Culture» is covered in 18 articles, «Sport» – in 16 works and the smallest number of articles is noted in the topic of «Adaptive Physical Culture» (Figure 1).

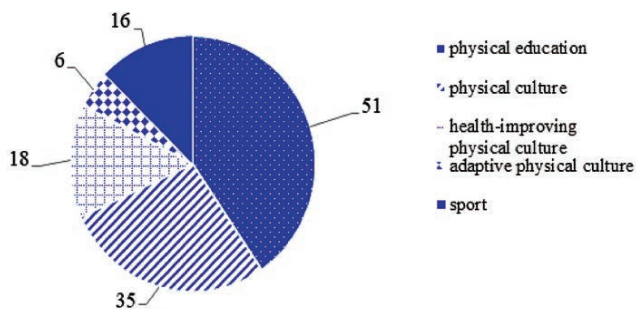


Figure 1. Publication activity of the areas of physical education of students in the focus of the journal «Theory and Practice of Physical Education» in the period 2020-2024.

The direction «physical education» rightfully takes the lead among the published articles, since the section of the journal «Physical education of children, adolescents and youth» specializes in this very problem. In this direction, organizational and methodological issues are discussed, for example: «Concentrated training in the educational environment of an elective course in aerobics» by E.G. Zuikova; «Individualization of physical education and sports classes at a university using gymnastics», L.G. Pashchenko; «Prognostic analysis of the development of psychophysiological qualities of medical students in the process of physical education at a university», M.A. Brusov, N.V. Peshkova; «Use of aesthetic and rhythmic gymnastics exercises in the physical education of female students», Yu.V. Korichko et al. «Development of flexibility in those practicing aero yoga», N.V. Valkina and others. The article examines pedagogical technologies and innovations in teaching methods of the disciplines of the block 2Physical Education and Sports». Particular attention is paid to the educational aspects of physical education as a pedagogical process, the authors draw attention to the possibilities of developing personal qualities in classes, such as moral-volitional, ethical and civic-patriotic.

The Physical Education direction is based on the concept of a scientific and theoretical journal, offering readers topics for reflection related to the value attitude to the phenomenon of physical education: «Attitude to Physical Education of Engineering Students as a Factor of High Competitiveness», A.V. Ponomarev et al.; «Students' Attitude to Physical Activity in Blended Learning», G.B. Glazkova, E.A. Lubyshev. Articles discussing the topics of interest and motives for classes are relevant: «Distinctive Features of Motivation for Physical Education Classes among First- and Graduating-Year Students», «Involvement of Technical University Students in Systematic Physical Education and Sports», D.B. Selyukin. As well as self-actualization and self-education: «Involving Students in Independent Physical Education Classes», A.V. Voronkov. Physical education of students has attracted public attention for over 30 years and is currently being transformed due to the digitalization of education, the introduction of new forms of teacher-student interaction, including distance and online technologies: «Application of individual programs for self-organization of students' motor modes», A.S. Sheplyakov; «Application of interactive technologies in physical education of students of a technical university», N.V.



Ryzhkin; «Digital technologies in physical education of students: experience of using a mobile application», A.A. Egiazaryan, P.V. Korolev, V.A. Grigoriev, B.A. Sviridov, N.B. Brilenok, and others.

The direction «health-improving physical culture» is characterized by publications of authors revealing issues of health and healthy lifestyle of students from the position of various methodological approaches and concepts: «Indicators for assessing the physical and socio-psychological health of student youth», Yu.A. Yakovleva et al.; «Improving the professional and applied physical training of students in a creative university taking into account the assessment of their health», N.V. Pakholkova et al. «Increasing the physical activity of modern youth as a necessary condition for their health preservation», O.P. Vlasova, V.A. Shalaev. The problematic field of research related to the field of fitness technologies was relevant in the period 2020-2024. The topic of «non-traditional Eastern systems» such as qigong, tai chi chuan, wushu and others stands out with a particularly wide range of publications. It is noteworthy that the authors themselves are often the bearers of the culture of this phenomenon: «Pedagogical technology of using physical culture and health-improving means in the context of students mastering an elective course in wushu», «Yoga as a psychological and pedagogical technology for the formation of a healthy lifestyle for students in the secondary vocational education system», T.A. Naumova, A.A. Baranov, and others.

The direction of «adaptive physical education» does not currently occupy a significant place in the studied section. This circumstance is due to the fact that articles of this profile are published in the journal «Adaptive Physical Education». Most of the articles are devoted to the topic of adaptation of physical education programs to the needs of rehabilitation after illnesses with a new coronavirus infection, in particular, stabilization of the respiratory and cardiovascular systems in the article «Fractal structure of ESG competencies in the use of physical education and sports in the fight against pandemic stress», authors: V.I. Grigoriev, E.G. Vakhnina, N.N. Sazonova, E.S. Novikova; article «Organization of a sports and health environment of a higher educational institution for students of a special medical department», authors: S.V. Radaeva, V.S. Sosunovsky, A.B. Sharafeeva, Zhang Yaqun et al.

The «Sport» direction includes the results of studies characterizing the state of issues related to the actualization of sport-based physical education: «Sport-

tization of physical education of university students based on volleyball», L.A. Volkov, A.Yu. Pashchenko; «The influence of sport-based classes on students' flexibility indicators», O.S. Krasnikova et al., here the works written about the functioning of the sports club at the university were also taken into account: «Physical capabilities of adolescent students who began regular classes in the volleyball section», N.N. Voronova, V.Yu. Karpov, K.A. Astafyev, E.Sh. Petina, as well as articles covering the problems of implementing the All-Russian Physical Culture and Sports Complex GTO. The authors of «Features of preparing students for the multi-event programs of the GTO complex» A.V. Voronkov (2020); «Development of student sports and health tourism in the university», S.A. Grigan et al.

At the third stage, the main objective of the study was solved, and answers were received to two questions:

1. What pedagogical phenomena in publications are related to the field of physical education of students?

2. What pedagogical technologies in the field of physical education of students with proven effectiveness belong to the first decile (the first 10% in the ranked distribution series)?

We conducted an analysis of the content of publications, the purpose of which was to confirm the assumption that the phenomena found by neural networks (intellectual technologies) essentially reflect the «mainstreams» or «trends», and the frontiers can only be determined through expert assessment.

Since frontiers are understood as conceptual provisions and technologies of varying scale, degree of coverage and popularity, it is obvious that they can be divided into three levels [1]:

1) global (strategic) level of «frontier concepts», which are a set of specific scientific views, ideas and cannot be applied in the applied aspects of physical education in themselves without experimental justification;

2) the regional level of «frontier-narratives», which characterizes modern, innovative technologies developed on the basis of the established theoretical and methodological basis of physical education;

3) the local level of «frontiers of weak signals», which represents a group of highly specialized frontiers developing within the framework of a specific task or direction.

In the course of the study, we established that the «concept frontiers» correspond in semantic content to



the answer to the first question – «What pedagogical phenomena in publications are related to the field of physical education of students?» It was determined that if the subject of cognition is pedagogical phenomena (upbringing, development, education, training), then the paradigmatic approach in the field of physical education becomes the object of cognition. This statement is reflected in studies that reveal the following scientific ideas:

- paradigms of health saving, health preservation, health creation, health formation, authors: A.G. Madzhuga; I.P. Zaitseva, O.N. Zaitsev; N.V. Minnikaeva; A.B. Serykh; T.A. Shilko et al.

- humanistic paradigm, which involves the formation and improvement of positive personal qualities of students, the development of interpersonal communication skills in the classroom and personal growth, authors: N.V. Pakholkova; M.P. Spirina; K.N. Dementyev et al.

- existential paradigm of physical education aimed at recognizing freedom and the right to personal choice of physical activity, cooperation and co-creation, conscious and active attitude to classes, self-education and self-actualization (self-expression, realization of one's abilities, ideas, desires), authors: Yu.F. Kuramshin; V.D. Getman; R.M. Kadyrov et al.

«Frontiers-narratives» reveal modern, innovative technologies that have already been developed and experimentally tested and essentially contain the answer to the second question of the study «Which pedagogical technologies in the field of physical education of students with proven effectiveness belong to the first decile?» As confirmation, it is necessary to cite research in the field of digital educational technologies, such as: digital educational environment (author N.Yu. Surova); distance learning in the discipline (T.Yu. Pokrovskaya); digital socio-cultural space (D.Yu. Narkhov); use of mobile applications (V.V. Bobkov), etc.

«Frontiers of weak signals» reflect the content of the results of research on a narrow topic, in particular, related to the gender approach in physical education, for example, such articles as: «Development of strength endurance of female students majoring in construction» (O.V. Safonova); «Dynamics of endurance indicators in female students engaged in fitness aerobics» (O.V. Shilenko); «Component composition of the body of female students engaged in sports programs» (A.A. Govorukhina), etc.

At the final stage, a study was conducted to study

the life cycle of publications, the characteristics of which were: a small proportion of publications, growth, plateau, decline, and again a small proportion of publications over a time period. During the substantive analysis of the articles, a striking example of the life cycle of publications on the topic was revealed: «optimization of the educational process in the discipline «Physical Education» in connection with the restrictions associated with the new coronavirus infection». Figure 2 shows the life cycle of publications on this topic.

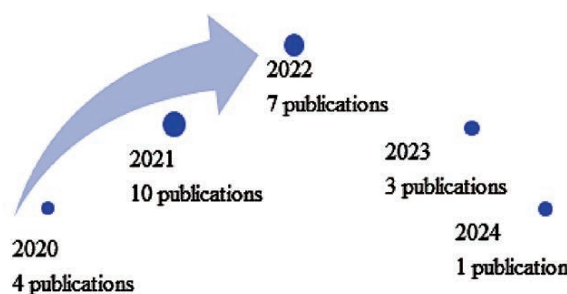


Figure 2. Life cycle of publications on topics related to the optimization of the educational process in the discipline «Physical Education» in connection with the restrictions associated with the new coronavirus infection

As can be seen from the figure, the peak of articles on this topic occurred in 2021, the authors drew attention to the following problems and their solutions: «Technological approach to distance learning in the discipline «Physical Education» in a university setting» by I.E. Korelskaya; «Modeling loads during the restoration and maintenance of physical performance of university students during online learning» by V.D. Getman; «Students' health as an indicator of the effectiveness of distance learning in elective disciplines of the subject «Physical Education»» by O.I. Kuzmina and others. Of course, the relevance of this topic was due to the unfavorable situation in the country. Along with this, the restriction of life activities became an impetus for the innovative development of distance learning, and in accordance with this, there was a surge in the development of online information technologies for teaching the discipline «Physical Education». Summarizing the conducted research within the framework of the meta-analysis of publications of the journal «Theory and Practice of Physical Culture», we note that a significant part of them corresponds to the «Strategy for the Development of Physical Culture and



Sports in the Russian Federation» for the period up to 2030. Thus, aspects of health preservation and health creation of student youth remain relevant and run like a "red thread" through the publications of 2020-2024. Studies devoted to the development of technologies and methods for improving motor skills and abilities, as well as physical abilities, have become timely. Of interest are articles that analyze the methods and forms of organizing physical education and sports work with students to form a sustainable motivation for physical education classes. At the same time, in our opinion, there is not enough scientific research on the problems of developing not only a healthy, but also a sporty lifestyle (style) in students. The scientific substantiation of the system of sportization of physical education of students, as well as the development of structural and organizational models for the development of student sports in collaboration with departments of physical education (physical culture), remain in demand. The organization of the educational process of students with health problems enrolled in a special medical group experiences a special need for scientific and methodological support. Pedagogical technologies for health formation by means of independent physical activity are currently relevant, while at the same time providing them with space for opportunities for self-realization in the field of physical culture and sports. It is necessary to continue research on the development of new information technologies based on online platforms, including the preparation of universal teaching aids, as well as mobile applications that are very popular among students [3].

Conclusions. Following the objective of the work, the frontiers of pedagogical knowledge in the field of physical education of students in the focus of publications in the journal «Theory and Practice of Physical Education» were identified. They were:

- «concept frontiers» representing the paradigmatic approach to the field of physical education: the concept of health preservation, health preservation, health creation, health formation: a humanistic paradigm of improving the physical culture of a student's personality aimed at developing communication skills and self-actualization by means of accessible physical activity; an existential paradigm of physical education

based on the freedom of personal choice, within which pedagogical interaction is carried out at the level of cooperation and co-creation, which contributes to a conscious and active attitude of students to classes, and also acts as an incentive for self-education;

- «narrative frontiers» combining innovative technologies in the educational field of physical education of students;

- «weak signal frontiers» that reflect local research in narrow areas of scientific creativity, which is reflected in low publication activity.

The conducted study is a timely narrative for building a new publishing policy for the journal «TPPK» in the development of scientific content in the field of physical education and sports and a model for studying various areas of sports science.

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