

Review

By Professor Atanas Georgiev

The dissertation of Maria Stefanova Ivanova,
a doctoral student in the field of Higher education: **1. Pedagogical Sciences** Professional field: **1.3 Pedagogy of education** in... Scientific specialty: **Methodology of education in physical education and sports**
On the topic: **Development of physical ability and physical qualities of students during field hockey activities**

The doctoral candidate Maria Ivanova is a senior lecturer at the Thracian University. She is a lecturer with extensive teaching experience. I know her as a very good student. from the first class of the specialty "Pedagogy of Physical Education" at the Faculty of Pedagogy of the Southwestern University "Neofit Rilski". She was also an excellent athlete in the University's basketball team. She graduated with a master's degree in the same specialty at the "Paisiy Hilendarski" University. She worked for several years as a physical education and sports teacher in Stara Zagora. With great ambition and desire for work, she created a field hockey team at the Thracian University with the students of the University. They are invariably in the top three at the State Student Games in the country. All this gives her reason to seek new paths for development through scientific research of the physical abilities of female students and is the basis for writing her dissertation.

Of interest is the search and finding of innovative ways to improve the work in sports classes by implementing new non-traditional sports for the country , such as field hockey, into the curriculum.

The dissertation is 192 pages long and includes an Introduction and three chapters, 34 tables, 86 figures, references and appendices. The references include 81 sources in Cyrillic, 9 in Latin and 16 Internet sources. The Introduction reveals the need to search for new ways to increase emotional engagement, cognitive activity and thereby increase the physical performance of students. This is also necessary due to the fact that the National Strategy notes a significant decrease in the social, moral and evaluative functions of sport as a social phenomenon over the past 15 years.

In the first chapter : Literature review and theoretical formulation of the problem, a very in-depth historical review is made of the emergence and development of field hockey in the world and Bulgaria. /From 9 to 46 pages/ It is worth noting here that the doctoral student Ivanova also examines the purpose and tasks of women's field hockey in the program of the FSS in the country's universities. The main purpose of sports classes in universities is not tied to high-performance sports. The main purpose, according to Ivanova, is "the activity and change of the physical condition of students, with a view to rapid adaptability to the expectations of the social economic sphere" p.15.

The tasks facing field hockey within the framework of the university do not differ much from those set for other academically represented types of sports, namely covering female students in the maximum possible volume for classes by type of sport... increasing the level of physical qualities of the participants in regular sports activities" In my opinion, Ivanova correctly determines that "the goal and tasks are multi-faceted and without the joint vision of management, teachers and students there is a limited possibility of achieving them" p. 16.

The same chapter also discusses the terminology related to physical ability. Physical ability is an integral indicator of a person's physical fitness, his physical working capacity. In the theory of physical education, physical ability is a complex indicator reflecting the level of "the overall working capacity of the organism based on the complex development of physical qualities and the motor skills and habits necessary for their application", p. 19.

For me and for the purpose of the study, Table 1 is very well placed, where the authors and their available publications are presented, linked and summarized by the author of the most complete possible study on the issues of Assoc. Prof.

Marina Nedkova. /p.20/ The table also shows the participation of Maria Ivanova's scientific supervisor, Assoc. Prof. Diana Peeva, who also works with non-traditional sports and has a very strong participation in the development of the scientific experiment and the dissertation.

A separate place in this chapter is given to the terminology of physical qualities. In the theory of physical education, it is accepted to define the individual aspects of a person's physical abilities as motor and physical qualities. Doctoral student Ivanova, correctly in my opinion, determines that some of the motor qualities are related to the central regulatory systems / Agility and partly speed /, others – to the morphological structure of the motor apparatus / Flexibility and partly muscle strength /, and still others are a function of the activity of the autonomic nervous system. Despite these differences, considering them as relatively independent qualities is conditional, due to a large number of common patterns in their development and improvement. p.30.

In the dissertation, this section also indicates the classification in a separate scheme of the main physical / motor / qualities according to Peeva, 2010 and Gocheva 2025 /. In my opinion, the physiological basis of agility is also very well defined, as it is sought in the mobility and dynamism of the nervous processes in the cerebral cortex. p. 35.

Conducting an in-depth review of the studies of the physical fitness of the population in Bulgaria since 1960 and of the first studies of students in 1970, when the State Committee for Science and Technical Progress and Higher Education began to keep statistics on "Indicators and norms for the physical fitness of students from the People's Republic of Bulgaria", Ivanova concludes that "physical development and physical fitness in Bulgaria lack systematicity and unification, therefore it is difficult to make a correct comparative analysis of the main factors of the physical fitness of students" p. 39.

After a thorough and comprehensive examination of the development of the physical ability of the Bulgarian population and Bulgarian students, Ivanova logically comes to a conclusion, which she formulates as a thesis hypothesis of the dissertation. The hypothesis of this study is based on the assumption that one of the possible ways to increase the level of development of the physical ability and physical qualities of female students from Thracian University is by establishing the

place of the sport of field hockey in the curriculum. She believes that these activities will increase the interest of female students with increased emotional stress, which affects the motivational sphere and, in combination with opportunities for performance in competitive events, would lead to the fullest possible fulfillment of the tasks set for physical education and sports at the university.

The working hypothesis presents in a concentrated form the assumption that **through field hockey classes for women, certain physical qualities of female students will be developed in an innovative way and a new, qualitative level of physical development will be reached.** p. 46

In chapter two, the goal, objectives, subject, object, methodology, and organization of the study are correctly formulated.

The purpose of the study is to analyze the existing and achieve a new, higher level of physical ability and the established physical qualities of female students after field hockey activities.

The main tasks are a study of literary sources, a survey, research and analysis of the entry level of anthropometry and physical ability, establishing the growth of physical ability and physical qualities of female students, developing and implementing a program for conducting classes with female students, and developing standards for control and assessment of the entry and exit level of development of female students' physical qualities.

The research methods used include the survey method, pedagogical observations, pedagogical experiment, functional research and testing, and mathematical and statistical methods.

The mathematical and statistical methods used are variance analysis, correlation analysis, regression analysis and Student's T-test - a method of parametric statistics, which is used to assess the statistical reliability of the differences between the arithmetic mean values of two samples / data groups /.

The object, subject and subject / contingent / of the study are correctly defined. The contingent are first-year female students - 2024/2025 studying the subject "Physical Education" at the Thracian University. 77 people were studied - women, who were divided into two groups - experimental / engaged in field hockey

/ - 36 people and control / with conventional sports / - 41 people. The age of the participants in the experimental group ranges from 19 to 21 years.

The organization of the study , which is being conducted at the sports facility of the Thracian University - Stara Zagora, is in three stages. The first stage with the formation of two groups, control and experimental. **The first stage** is from October 2024 to January 2025. **The second stage** ascertains the changes in the physical qualities of the female students by conducting the main formative experiment with statistical data processing. Its duration is from February 2025 - May 2025.

The third stage from June 2025 - until the end of 2025 is related to statistical data processing, preparation of the necessary documentation and writing of the dissertation.

curriculum was created to enhance the physical, social and psychological development of female students, as well as to build teamwork skills. According to Ivanova, the emphasis is on promoting a healthy lifestyle through regular physical activity. / p. 62 /

The total number of hours of the course is 120 hours. Of which lectures - 16 hours

lectures and practical exercises – 104 hours. The discipline is studied in two semesters. The curriculum is aimed at forming not only motor skills and habits, but also values that are applicable in an academic and professional aspect, playing an important role in the overall development of the students. /p.62 – p. 63 /.

In chapter three – results and analysis of the attitude and motivation of female students towards physical education and sports. Through an anonymous survey of the participants in the experiment, the unpleasant truth is established, known to me as a long-time advocate for more sports classes in the country's higher education institutions. Namely, that students attend mostly because of the mandatory nature of the classes – 75% answer this way, 10% report the connection of the subject with reducing the stress of student work, and 15% indicate other answers. The prevailing negative attitude is reported according to Ivanova and in the National Strategy for the Development of Physical Education and Sports in Bulgaria, as well as in similar studies conducted by Gocheva 2025 and Nestorova, 2023 p. 64.

It is important to note that 54% believe that the motivation for successful activity is the personality of the teacher, which, according to the doctoral student, causes reflection on the quality of the training of teachers in physical education. p.64. The low score for the possibility of continuing education in specialized Higher Education Institutions dedicated to sports training is striking. By far the largest percentage is related to the attitude towards the material base – 68% believe that it does not provide good opportunities for sports in HEIs.

The development of physical qualities and the correct dynamics in the ability of female students from the experimental group through additional field hockey classes in the form of a training process is the main goal of our study . **The results after the completion of the experiment and especially the presence of progress in the state of physical ability are evidence of the successful application in practice of the specific features of field hockey.** p.170

The conclusions of the dissertation, although very extensive and detailed, are accurately drawn by the doctoral student Ivanova and correctly reflect what was done in the experiment. "The main conclusion from the experiment conducted by implementing the field hockey curriculum and intensive activities in this sport is related to increasing the physical capabilities of the participants, increasing the desire to upgrade physical activity, understanding the importance of positive self-esteem in terms of physical condition, the emotional charge of sports during competitive events, and thus achieving the main goal of physical education in higher education - improving physical performance." p. 170

I am very impressed by **the recommendations** that new and insufficiently known sports have their place in physical education programs in universities. These sports should be offered as an alternative to traditional ones, but on condition that there are trained specialists and a good material base for conducting classes. As a recommendation, students with sports achievements should be accepted, who with their personal example would change the overall atmosphere in conducting physical education and sports classes.

The contributions of Maria Ivanova's work are mainly in the extremely serious and in-depth study of the motivational sphere of transition from school to higher education. The created program and norms for individual assessment of the

condition and growth in the development of the physical qualities of female students are also a very serious contribution.

The abstract meets the requirements of the Law and the rules for writing. The dissertation also has two publications at the highest level in co-authorship with its scientific supervisors.

The dissertation is written in a very good scientific style and in good Bulgarian. Considering all this, done in-depth and analytically, in this scientific research, I believe that the dissertation meets the requirements of a serious scientific work.

Therefore, I confidently propose to the esteemed scientific jury of the Faculty of Pedagogy of the Shumen University "Bishop Konstantin Preslavski" to award the educational and scientific degree "Doctor" to Maria Stefanova Ivanova.

Reviewer - Prof. Dr. Atanas Georgiev



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