

REVIEW
ON THE DOCTORAL DISSERTATION
FOR THE AWARD OF THE EDUCATIONAL AND SCIENTIFIC
DEGREE "DOCTOR"

KONSTANTIN PRES LAVSKY UNIVERSITY OF SHUMEN

Faculty of Education

Scientific specialty: Methodology of Teaching Physical Education and Sport

Dissertation title:

DEVELOPMENT OF PHYSICAL FITNESS AND PHYSICAL
QUALITIES OF STUDENTS THROUGH FIELD HOCKEY TRAINING

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Data on doctoral studies, dissertation, abstract and publications

The dissertation submitted by Mariya Stefanova Ivanova, entitled Development of Physical Fitness and Physical Qualities of Students through Field Hockey Training, is topical and addresses a current issue in the system of physical education and sport in higher education: the search for effective and motivating ways to improve female students' physical fitness in the context of growing physical inactivity. The topic is suitable for a doctoral dissertation and is consistent with national priorities for increasing physical activity, as well as with the need to broaden the range of sports offered at universities by including sports that are less familiar to the student community.

The dissertation comprises 192 standard pages, including 12 pages of appendices. It is illustrated with 86 figures and 34 tables and is accompanied by 105 bibliographic sources, of which 81 are in Cyrillic (78 in Bulgarian and 3 in Russian), 8 in Latin script, and 16 internet addresses. The work is structured in the conventional sections: introduction, three chapters, conclusions, recommendations, contributions, references and appendices. It is supported by extensive tabular and graphic material.

In the introduction, the social and pedagogical significance of students' physical fitness is substantiated, and the role of innovative and insufficiently popular sports (in this case, women's field hockey) is outlined as a means of increasing students' interest in physical education and sport classes.

Chapter One presents a comprehensive and logically organised literature review covering: the historical development of field hockey for men and women worldwide and in Bulgaria; the aims and place of the sport in the university physical education and sport curriculum; and a terminological analysis of the concepts of "physical fitness" and "physical qualities". The attempt to systematise studies conducted in Bulgaria on the physical fitness of the population is useful. Emphasis is also placed on students' motivational sphere with regard to active participation in sport and physical activities. The

literature review is clearly structured, and the citations are accurate and not overly dense. At the end of the chapter, the working hypothesis is formulated, according to which targeted field hockey classes, combined with work on the motivational sphere, can lead to an improvement in female students' level of physical fitness.

Chapter Two presents the conceptual framework of the study: aim, objectives, object, subject and research sample (77 first-year female students from Trakia University, assigned to an experimental group, $n=36$, and a control group, $n=41$). The tests used to evaluate the results of the experimental work are specified; the research methods are appropriately selected and effective for testing the hypothesis. The organisation of the study is described in detail. The field hockey curriculum used, with a total course load of 120 hours, is presented. The methodology was applied in the form of a sports-pedagogical experiment.

The following Chapter Three analyses the results of the questionnaire concerning respondents' attitudes and motivation towards physical education and sport in secondary and higher education; the baseline anthropometric and motor levels; the dynamics of the groups' results; and the comparative analysis after the experiment. The data show a statistically significant improvement in both groups on most indicators, with the experimental group demonstrating a more pronounced increase in speed, speed endurance, standing long jump and flexibility. The analysis is linked to pedagogical practice.

The originality of the work is confirmed by the absence of traces of plagiarism. There is no evidence of procedural irregularities. The dissertation meets the requirements of the Regulations for the Acquisition of Scientific Degrees of Konstantin Preslavsky University of Shumen.

The attached abstract reflects the content, methodology, main results, conclusions and contributions of the dissertation. The results obtained have been disseminated through two articles (both co-authored), published in the same issue of one journal. The descriptions of the articles are identical, which

suggests a technical inaccuracy (a check of the journal's website confirms that both articles have been published).

Scientific Contributions

In view of the research work carried out and its subsequent presentation in the dissertation, a number of contributions of a theoretical and applied-scientific nature can be identified.

- The attitudes and motivation of female students towards physical education and sport in the transition from secondary to higher education have been revealed in the context of introducing a little-known team sport.
- The dynamics of physical fitness and of individual physical qualities of female students after one year of field hockey training have been established, in comparison with a control group engaged in conventional sports.
- A field hockey curriculum for female students has been developed and piloted; it is applicable in the system of physical education and sport in higher education, provided that trained staff and an appropriate material base are available.
- Local norms for monitoring and assessing the entry and exit levels of physical qualities have been developed; they can support the lecturer's individual work with students.

Recommendations and remarks

The working hypothesis and the aim of the study would benefit from stricter operationalisation through a clear specification of the expected effect on individual physical qualities and in relation to the control group.

In future publications, the between-group comparison of gains should be supplemented with effect-size indicators, and the influence of the unequal baseline levels of the two groups should be addressed more explicitly; the

literature sources used should be presented in the bibliography according to APA 7, and non-academic internet addresses should be reduced.

From a linguistic point of view, the quality of the work is good. In some parts of the dissertation the necessary spaces are missing, quotation marks are incorrectly used, tables are wrongly titled below rather than above, and a full stop is incorrectly placed in abbreviations of metric numerical data.

The dissertation lacks a list of abbreviations used in the text.

The remarks above are of a clarifying nature and do not diminish the overall completeness of the work or its applied value for the practice of physical education in higher education.

Questions to the doctoral candidate

How do you explain the greater gain in the experimental group, given that the baseline levels of the two groups were not equalised and the groups were not formed by randomisation?

Which part of the effect do you attribute to field hockey, and which part to the different initial training or to motivation?

Conclusion

The dissertation of Mariya Stefanova Ivanova is a valuable scholarly work as an empirical study on a topical issue in the methodology of physical education and sport in higher education. It has a logical structure, includes a pedagogical experiment, a quantitative analysis of the results and an applicable methodological product (a curriculum and assessment norms). The work enriches practice with regard to the introduction of field hockey as an alternative means in classes with female students.

On the basis of the above, I consider that the dissertation, in terms of topicality, the scope of the experimental work carried out and its applied character, enriches the theory and practice of physical education and sport and fully meets the requirements of the Act on the Development of the Academic

Staff in the Republic of Bulgaria and the regulations of Shumen University.

I propose that the esteemed academic jury award Mariya Stefanova Ivanova the educational and scientific degree of Doctor in the scientific specialty "Methodology of Teaching Physical Education and Sport", in higher education area 1. Pedagogical Sciences, professional field 1.3. Pedagogy of Education in
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