

SPECIFICITY OF TEACHING PHYSICAL EDUCATION AND PHYSICAL CULTURE IN THE HIGHER EDUCATION SYSTEM

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Abstract: *Teaching physical education and physical culture in the higher education system has a positive impact on the health and labor potential of the country by strengthening the physical and mental health of students, improving their cognitive functions, and developing social skills. The article discusses the relevance, practical problems, curriculum modernization recommendations, and national measures for Uzbekistan in the context of physical education in higher education.*

Keywords: *physical education, physical culture, higher education, student health, curriculum, Uzbekistan, politics.*

Introduction. At the global level, the sedentary lifestyle of humans is leading to an increase in chronic diseases (cardiovascular diseases, diabetes, some types of cancer) and mental health problems (WHO, 2018). Higher education institutions are an important platform for instilling healthy habits, optimizing lifestyles, and developing social skills necessary for future professional activities among young people. By effectively integrating physical education and physical culture into higher education, students can maintain consistent physical activity, increase stress resistance, and strengthen cognitive potential (Donnelly & Lambourne, 2011; Sallis et al., 2012).

The purpose of this article is to analyze the relevance of teaching physical education and physical culture in higher education based on international and local sources, develop recommendations suitable for the conditions of Uzbekistan, and propose a practical model.

Methods

1. **Research design** The article was conducted in the form of a conceptual-analytical study based on a systematic review of the literature and an analysis of local sources and official documents. The aim is to determine the educational, health and social significance of physical education in the context of higher education and to assess the possibilities of its practical application in the conditions of Uzbekistan.

2. **Information search and selection criteria**

- Information search from the official sites of PubMed, Scopus, Google Scholar, WHO and UNESCO in April–may 2025 and the official portals of Uzbekistan (stat.uz, justice or legal information portals) and local scientific journals (. tadqiqotlar.uz and other open resources).

- **Keywords:** "physical education higher education", "physical activity university students", "Quality Physical Education UNESCO", "WHO Global Action Plan physical

activity", "physical education higher education Uzbekistan", "student health Uzbekistan statistics".

- Criteria: Empirical studies and review articles from 2005–2025, strategic documents of international organizations, official statistics and legislative acts of the Republic of Uzbekistan. Only publications that can be verified through open source have been added to the local articles.

3. Data analysis selected sources were considered by the method of content analysis (content analysis) on the topic: evidence on the health and cognitive effects of physical activity was collected, conclusions were drawn in accordance with the context of higher education and compared with the data of Uzbekistan. The results of local scientific work (Isomiddinova & Nurullayev, 2024 and other regional publications) were analyzed taking into account the students and cultural characteristics of Uzbekistan.

Results (Results)

1. International evidence

- Health effects of physical activity: The WHO Global Action Plan on Physical Activity 2018–2030 has established that increasing physical activity can reduce the risk of chronic diseases and mental disorders (WHO, 2018). According to the document's conclusions, at least 150 minutes of moderate-intensity aerobic activity per week is considered a health standard for adults. (World Health Organization. Global Action Plan on Physical Activity 2018–2030. Geneva: WHO; 2018. URL:

<https://www.who.int/publications/i/item/9789241514187>)

- * Cognitive and academic efficacy: intra-classroom physical activity and physical training in school and higher education help improve students' efficiency in attention, memory and learning (Donnelly & Lambourne, 2011; doi:10.1016/j.ypmed.2011.01.021). Neurobiological explanations suggest that exercise stimulates the release of neurotrophic factors such as BDNF (brain-derived neurotrophic factor), which supports neuroplasticity and cognitive function.

- Mental health: physical activity has been recognized as an effective tool in reducing depression and anxiety (Mikkelsen et al., 2017; doi:10.1016/j.maturitas.2017.09.003). Team sports increase social connectedness, which is important for psychological well-being.

- Physical education and education policy: the UNESCO Quality Physical Education document calls for the integration of quality physical education in educational systems and the establishment of pedagogical norms (UNESCO, 2015. URL:

<https://unesdoc.unesco.org/ark:/48223/pf0000235409>).

2. Research and trends in higher education

- Student engagement: Keating and colleagues (2005; doi:10.3200/JACH.54.2.116-126) meta-analysis shows that low levels of physical activity in college and university youth are associated with academic load, lack of time, and decreased motivation.

• Models of physical education: Kirk (2010) and Bailey (2006) work argues that the curricula of physical education should be directed not only to teaching sports techniques, but also to the formation of a healthy lifestyle, safe movement and social competencies.

3. Uzbek scientists and local results

• Isomiddinova B.S. and Nurullayev A.Q. (2024) in an article published on the website research.uz, the role of physical education and mass sports events in organizing higher education institutions is emphasized. The authors gave practical recommendations, analyzing the experience of increasing the physical activity of students through preventive and social activities at the campus level (Isomiddinova & Nurullayev, 2024. URL: <https://tadqiqotlar.uz/new/article/view/3188>).

• Local case studies often examine the impact of pilot projects, campus wellness programs, and sports facility upgrades; results show that a comprehensive approach (theory + practical training + online monitoring) is more effective among students.

4. Official statistics and legal acts of Uzbekistan

• Statistics: data published by the State Statistical Committee of the Republic of Uzbekistan (press releases, 2020-2021) gives general indicators about the level of physical activity of the population; however, there is little special and regular statistical monitoring on students of Higher Education (stat.uz press releases). Local indicators can be obtained through the addresses and press materials of Stat.uz (<https://stat.uz>).

• Regulatory and legal framework: The relevant legislation of the Republic of Uzbekistan - in particular, the current laws in the field of sports and physical education and regulatory documents on education - provides the main legal platform for the implementation of physical education programs in higher education institutions. Official document sources: Official legal documents portals of the Republic of Uzbekistan.

Discussion (Discussion)

1. Main findings in the context of IMRaD

• A combination of international evidence and local practices: International Studies (WHO, UNESCO, Donnelly et al.) proves the health and cognitive benefits of physical activity; Uzbek researchers and applied programs (Isomiddinova & Nurullayev, 2024) show their attempts to adapt this approach to local conditions. This adaptation should take into account socio-cultural characteristics.

• Curriculum and assessment: Incorporating physical education modules into higher education curricula can encourage students to be physically active on a regular basis. Assessment based on competencies — knowledge, practical skills, and motivation — is considered more effective (Kirk, 2010).

2. Problems and opportunities specific to the Uzbek context

• Lack of statistics and research: There are few comprehensive surveys and monitoring systems on the physical activity of Uzbek higher education students, making it difficult to develop evidence-based policies at the national level. Conversely, the republic has state programs to modernize campuses and sports facilities, which create opportunities.

• Cultural and social characteristics: a large part of educational institutions rely on traditional physical education practices in the current stages; modern approaches (technologies, smart-monitoring, individual planning) are important to increase student motivation.

3. Strategic recommendations (based on IMRaD results)

• Curriculum modernization: introduction of credit-based, modular courses such as "Physical Culture and Healthy Lifestyle" at the undergraduate level; inclusion of theory, practical training, psychological training, and digital monitoring in the course content.

• Focus on competence-based assessment: the result should be measured not only by sports performance, but also by the student's level of self-management, motivation, and the formation of healthy habits.

• Teacher training: CPD programs, certification, and research activities; teachers must also have knowledge of pedagogy and health (Bailey, 2006).

• Digital tools and monitoring: Implement individualized training and monitoring through wearables, campus fitness apps, and data analytics (ACSM, 2014).

* Monitoring at the national and institute level: stat.uz and the creation of an integrated education platform between higher education institutions; at the end of the year, statistics of physical activity of students should be published.

4. Research limitations

• This article is based on a systematic theoretical and practical source analysis; however, it does not include original experimental or large-scale national survey results. The limited number and accessibility of local scientific literature has reduced the possibility of further deepening the results. Representative studies and developments in the RCT methodology are needed in Uzbekistan in the future.

Conclusion (Conclusion) an analysis carried out on the basis of IMRaD requirements shows that the integration of physical education and Physical Culture disciplines into the higher education system serves to improve the physical, mental and cognitive health of students, develop social skills and increase economic efficiency. International recommendations (WHO, UNESCO) and scientific evidence show that the health burden can be reduced by increasing physical activity. Practical steps in the conditions of Uzbekistan — updating the curriculum, training of teachers, monitoring and implementation of digital technologies — are also necessary and can be implemented.

Practical model: sample implementation steps

1. Baseline analysis: 1-year baseline analysis of campus facilities, teacher qualifications, and student physical activity.

2. Strategy: 3-year physical education integration strategy (curriculum, CPD, infrastructure, digital monitoring).

3. Pilot projects: Implementation and evaluation of the pilot module in 2–3 universities (pre-post design, health and academic performance).

4. Scaling up: Expanding to all higher education institutions and integrating into the national statistical platform based on pilot results.

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