

REVIEW

## Systemic Vision of Students' Sports and Physical Activities within the Educational Landscape: Contemporary Patterns

### Visión Sistémica de las Actividades Físicas y Deportivas de los Alumnos en el Panorama Educativo: Modelos Contemporáneos

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#### ABSTRACT

**Introduction:** the integration of physical education, health and fitness, and mass sports activities into the training of higher education students is essential for promoting their overall well-being and resilience. However, this integration faces multiple challenges that require ongoing evaluation and strategy adjustments.

**Objective:** this study aims to assess how sports, mass sports, and physical education activities are implemented in higher education institutions (HEIs) under current conditions.

**Method:** a bibliosemantic method was used, involving a content analysis of scientific articles and publications from 2015 to 2025 related to physical education in HEIs. Special attention was given to the challenges associated with distance learning and inclusive education, as well as to effective practices applied in Ukrainian and European HEIs.

**Results:** the analysis identified both challenges and successful practices in integrating physical education into HEIs. It underscores the importance of a balanced approach that combines traditional and innovative methods to enhance student engagement and health outcomes.

**Conclusions:** the study offers practical insights for educational management, informing the development of curricula and strategies that promote active lifestyles and physical wellness among students.

**Keywords:** Distance Learning; Higher Education; Inclusive Education; Physical Education; Sports; Student Motivation.

#### RESUMEN

**Introducción:** la integración de la educación física, la salud, la condición física y las actividades deportivas de masas en la formación de los estudiantes de educación superior es fundamental para promover su bienestar general y resiliencia. Sin embargo, esta integración enfrenta múltiples desafíos que requieren una evaluación continua y ajustes estratégicos.

**Objetivo:** este estudio tiene como objetivo evaluar cómo se implementan las actividades deportivas, deportivas de masas y de educación física en las instituciones de educación superior (IES) en las condiciones actuales.

**Método:** se empleó el método bibliosemántico, que incluyó un análisis de contenido de artículos y publicaciones científicas del período 2015 a 2025 relacionados con la educación física en las IES. Se prestó especial atención a los desafíos asociados con la enseñanza a distancia y la educación inclusiva, así como a las prácticas eficaces aplicadas en las IES de Ucrania y Europa.

**Resultados:** el análisis identificó tanto desafíos como prácticas exitosas en la integración de la educación física en las IES. Se destaca la importancia de un enfoque equilibrado que combine métodos tradicionales e innovadores para mejorar la participación estudiantil y los resultados en salud.

**Conclusiones:** el estudio ofrece aportes prácticos para la gestión educativa, orientados al desarrollo de planes de estudio y estrategias que promuevan estilos de vida activos y el bienestar físico de los estudiantes.

**Palabras clave:** Educación Física; Deporte; Educación Superior; Motivación Estudiantil; Aprendizaje a Distancia; Educación Inclusiva.

## INTRODUCTION

The modern educational environment is undergoing a profound transformation, driven by rapid digitalization, shifting societal values, and an increased emphasis on student well-being. Higher education institutions are increasingly recognized not only as centers of academic excellence but also as catalysts for developing healthy, resilient, and socially engaged individuals.<sup>(1,2)</sup> In this evolving context, integrating physical education, health-oriented activities, and mass sports is vital in addressing the complex challenges students face during their academic journeys.

Research shows that students often experience physical and mental health problems while pursuing higher education.<sup>(1,2)</sup> In particular, students experience higher levels of distress than their non-student peers, are at risk of gaining weight, and often have sleep problems and poor health.<sup>(3,4,5)</sup> Another significant risk factor for students' health and academic performance is a predominantly sedentary lifestyle resulting from a substantial academic workload.<sup>(4,6,7)</sup> These issues are particularly pronounced in the context of online and hybrid learning models, which have further limited opportunities for consistent physical engagement. Therefore, preserving the health of higher education students and preparing them for future activities is one of the priority areas of training in higher education institutions (HEIs).

Educational policymakers in Europe and Ukraine are reassessing strategies to better integrate physical education into the student experience, recognizing that physical activity enhances both physical and mental health while promoting healthy habits for the future.<sup>(4,5,7,8)</sup> For this purpose, various approaches and methods are available, including providing students with opportunities for physical activity. Experimental studies have demonstrated the positive impact of physical activity on students' mental and physical health, as well as their academic performance.<sup>(2,7,9,10,11,12,13)</sup> Examining both the challenges and effective strategies for enhancing student motivation, fostering inclusivity, and leveraging innovation in physical activity enables the development of educational policies and guides institutional efforts to create healthier academic environments.<sup>(14,15,16,17,18,19,20,21,22,23,24)</sup>

Given the above, increasing students' physical activity is a crucial component of the state's policy strategy for developing physical culture and sports.<sup>(10,11,22,25)</sup> This review-based study aims to evaluate the implementation of systemic physical education and sports initiatives across higher education institutions, with a particular focus on the Ukrainian and European contexts.

## Objective

This study aims to examine the systemic approaches, implementation models, and contextual challenges of organizing sports and physical wellness activities in higher education institutions. Special attention is given to the experience of Ukrainian universities during times of crisis and to the potential for adapting European best practices.

## METHOD

### Type of Study

This study is a narrative review that focuses on the organization of physical education in higher education institutions. The study was conducted from June 2024 to January 2025, utilizing resources from various European universities, including UIC Barcelona, the University of Tartu, Sciences Po, and the University of Warsaw, as well as multiple databases. The methodology employed builds upon previously defined research frameworks while incorporating collaborative insights from various authors.

## Universe and Sample

The universe of this study consists of scientific articles published between 2015 and 2025 that relate to physical education in higher education. The sample was drawn from multiple databases, including PubMed, Google Scholar, Web of Science, and Scopus, as well as open-source data from the EU (EUSA, Erasmus+ Sport, European Commission Education).

A purposeful sampling technique was employed, and articles were included based on the following criteria: relevance to the specified research period, a clear description of the research methodology, and well-defined results. Articles that did not meet these criteria or were published in journals with low impact factors were excluded.

## Variables

Key variables included physical education practices, student engagement, distance learning methodologies, motivation levels among students, and their overall health and wellness. We used keywords and their combinations in English and Ukrainian: [physical education+students], [physical education and health work+students], [distance learning], [motivation+students], [sport+students], [health+students].

## Data Collection and Processing

Data were collected using a structured search strategy that involved predefined keywords and their combinations in both English and Ukrainian. The analysis of the data entailed reviewing the content of selected articles for emerging themes, trends, and applicable methodologies. The results were synthesized to identify best practices and gaps in the literature concerning physical education in higher education institutions.

## Ethical Standards

The study adhered to ethical standards by ensuring that all data sourced were publicly available and did not involve interactions with human subjects. In conducting the analysis, the authors committed to academic integrity, avoiding plagiarism, and properly citing all sources to uphold transparency and respect for intellectual property.

## DEVELOPMENT

### Theoretical Foundations and Contemporary Context of Physical Activity in University Students' Lives

This section presents a structured analysis of the theoretical and practical foundations relevant to implementing physical activity programs in higher education institutions. Drawing on recent research and policy developments, the section highlights core conceptual frameworks and international best practices that inform the systemic integration of physical culture into the student experience.

A growing body of literature highlights the vital role of physical activity in promoting students' mental, physical, and academic well-being. According to Herbert<sup>(7)</sup>, structured physical activity programs in higher education not only promote health but also enhance resilience and mental stability. Wang et al.<sup>(11)</sup> argue that diverse, adaptable sports formats have the potential to reduce physical inactivity, improve teamwork skills, and strengthen psychophysical endurance. Wunsch et al.<sup>(2)</sup> further support this view, demonstrating a positive triadic relationship between physical activity, stress reduction, and academic performance through meta-analytic data.

Effective implementation, however, requires a systematic and inclusive approach that takes into account student diversity, the variety of educational formats (including distance learning), and individual needs. As Liao et al.<sup>(12)</sup> and Ahmed & Al Salim<sup>(15)</sup> emphasize, the most significant impact emerges when programs are engaging, flexible, and positioned as integral to student life rather than formal obligations.

This conceptual stance aligns with the principles embraced by both European and Ukrainian higher education institutions (HEIs), which seek to normalize physical activity as a culturally valued element of the academic environment.

### European Best Practices and Their Transferability

European universities demonstrate broader and more integrated approaches to physical culture in academic settings. Initiatives such as Campus Wellness Days, adaptive sports modules, and subsidized gym memberships<sup>(19,26,27,28,29,30,31)</sup> aim to foster voluntary participation and long-term engagement.

Notable examples include the e-Fitness Credits Program at the University of Tartu<sup>(32)</sup>, which awards academic credit for physical activity, thus aligning health promotion with educational outcomes. The EUSA Volunteer Program<sup>(18)</sup> encourages student leadership in sports event organization, promoting empowerment and practical skill development. The Vodafone EmpowHER program in the UK<sup>(19)</sup> further supports gender equity in sports by offering mentorship and access to digital tools for female athletes.

These models emphasize inclusivity, diversity, and a holistic view of student development. While full-scale

replication may be limited by budgetary and institutional constraints, selected components – such as modular courses, digital platforms, and mobile fitness tracking – offer promising avenues for adaptation within Ukrainian HEIs.

### Systemic Approaches in Ukrainian Higher Education Institutions

Recent analyses of Ukrainian HEIs indicate that physical education and health initiatives are implemented through a variety of compulsory and optional activities. These include structured physical education courses, participation in sports clubs and amateur leagues, wellness events, and awareness campaigns. As Rybalko<sup>(23)</sup> and the Ministry of Education and Science of Ukraine<sup>(13)</sup> report, such systemic efforts form part of a broader national strategy to promote a culture of wellness and active living among youth.

The central objective of these programs is to foster sustainable habits by making physical activity engaging, relevant, and accessible. Nonetheless, implementation is often hindered by infrastructural and organizational limitations. Reported barriers include low student motivation<sup>(17)</sup>, limited access to sports facilities, a narrow selection of course offerings, and a lack of individualized approaches – particularly for students with specific health needs.<sup>(31,32)</sup>

### Distance Learning: Emerging Digital Solutions

The transition to distance learning posed significant challenges for physical education but also accelerated the adoption of digital technologies. According to Zenina et al.<sup>(33)</sup>, students in remote formats reported reduced motivation, limited access to equipment, and insufficient personalized feedback. Figure 1 in the original article illustrates these interconnected challenges and their impact on student health.

### Nevertheless, several HEIs demonstrated adaptability:

- Taras Shevchenko National University of Kyiv launched a YouTube channel for guided exercise routines.
- Lviv State University of Physical Culture introduced personalized video challenges and used apps for tracking progress.
- The University of Helsinki and the University of Wrocław implemented real-time virtual classes with interactive feedback and gamified elements.

These cases illustrate that digital formats can maintain or even enhance physical education outcomes – provided they are supported by well-structured content, adaptive technologies, and motivational strategies.<sup>(11,30,31)</sup>

## RESULTS

The results of the literature and government document analysis highlight key trends in the development and implementation of physical activity programs across higher education institutions. Drawing from Ukrainian and European cases, the findings are presented across four thematic categories: institutional models, student engagement, infrastructural and motivational barriers, and digital transformation during distance learning. The synthesized insights offer a foundation for practical recommendations and further research.

### Peculiarities of implementing physical education and health work in higher education institutions

Physical education and health work in higher education institutions is a system of organizational measures aimed at maintaining, preserving and improving the health of student youth through engagement in regular physical activity.<sup>(22,25)</sup> These activities include not only compulsory physical education classes, but also participation in sports sections, amateur clubs, mass events, preventive actions, educational campaigns, etc.

These activities include physical education classes (compulsory and optional); health training in sports clubs and clubs (not at the competitive level); morning gymnastics, fitness, yoga, dancing, and hiking; events to promote an active lifestyle (health days, sports flash mobs, bicycle rides, etc.); preventive programs aimed at reducing physical inactivity, stress, and fatigue; educational work (lectures, trainings on health, physical activity, and proper nutrition).

The main goal of these activities is to motivate students to engage in systematic physical activity as a means of maintaining physical and mental health.<sup>(10,11,22)</sup> This is part of the overall strategy of preserving and developing human potential in the modern educational environment.

### European experience of involving students in sports and physical activity

Universities in the European Union are actively implementing innovative, integrative and student-centered approaches to the development of physical education and health activities. The main goal of such activities is not only to increase the level of physical activity, but also to form a culture of healthy lifestyle, increase

motivation and develop social support skills.

European educational institutions operate within the framework of the Healthy Campus and Sport for All strategies, as well as national and institutional programs to preserve the psychophysical well-being of young people.<sup>(27,28,29)</sup> The main emphasis is on voluntariness, accessibility, diversity, and inclusiveness.<sup>(30)</sup> Table 1 shows examples of systemic implementation of measures in EU countries.

**Table 1.** Examples of a systematic approach to the organization of sports and fitness activities among students in European universities

Type of event	Essence and examples of implementation
Variable modules on physical activity	The student can choose the type of classes: yoga, Pilates, team sports, functional training, dance. Often, these modules are counted as part of the curriculum.
“Open Campuses / Campus Wellness Days	Organization of health days with master classes, open workouts, sports quests, lectures on nutrition and the balance between study and rest.
Fitness cards or subscriptions	Universities provide free or discounted passes to gyms, swimming pools, and fitness centers, and often cooperate with municipal institutions.
Online platforms for physical activity	Own digital resources with video workouts, challenges, and activity trackers (for example, at universities in Sweden, the Netherlands, and Finland).
Student sports clubs and leagues	Encouraging participation in intra-university competitions, inter-faculty tournaments, organizing amateur clubs, and supporting self-management.
Inclusive programs	Programs for students with disabilities: adaptive physical education, special classes based on physical or mental condition.
Health as part of educational policy	Integration of health, stress management, and physical activity into educational courses or mental well-being programs.
International sports exchanges	Partnership programs, participation in the European University Games, Erasmus Sport, student sports camps.

Thus, the practices of European universities demonstrate consistency and focus on the needs of modern youth. An important feature is the creation of a favorable environment in which physical activity becomes accessible, diverse and integrated into student life. This approach contributes not only to the physical but also to the psychological well-being of students.

Table 2 presents examples of programs to increase physical activity among students in EU countries.

**Table 2.** Programs and activities aimed at increasing the level of physical activity among students in the EU countries

University / Organization	Initiative	Description
University of Barcelona (UIC Barcelona)	Program for highly skilled athletes	The ability to combine professional sports with education, individual approach and career counseling.
European University Sports Association (EUSA)	EUSA volunteer program	Involvement of students in organizing and holding European university championships covering 24 sports in 8 countries.
Universities of the United Kingdom	Vodafone EmpowHER program	Supporting young women rugby players through mentoring, technology solutions, and mental health support.
European Student Network (ESN)	International Erasmus games	Annual multi-sport competitions for exchange students held in different European cities.
European Commission	The initiative of European universities	Establish alliances between higher education institutions to promote student mobility and integrate sports into educational programs.
Universities in France (e.g. Sciences Po)	Sports events and competitions	Organization of more than 40 sports disciplines and participation in inter-university competitions.

As can be seen from the information in table 2, European universities are actively implementing innovative approaches to engage students in sports, focusing on the following. For example, they implement programs that allow students to combine professional sports with their studies, providing flexibility and support, and offer a wide range of sports disciplines and activities to meet different student interests. To develop leadership and communication skills, students are involved in the organization of sporting events. Another mandatory aspect of implementing such programs is the use of modern technologies to monitor physical activity, support students' mental health, and evaluate the effectiveness of implementation. Creating alliances and organizing international competitions promotes cultural exchange and empowerment for students.<sup>(32)</sup> The application of such approaches in domestic Ukrainian higher education institutions can contribute to increasing the level of physical activity and overall well-being of students, but unfortunately, for Ukrainian universities, the implementation of such a variety of activities is often not possible due to lack of funding and the view of physical activity as an unnecessary elective.<sup>(17)</sup> These aspects will be discussed in more detail in the following



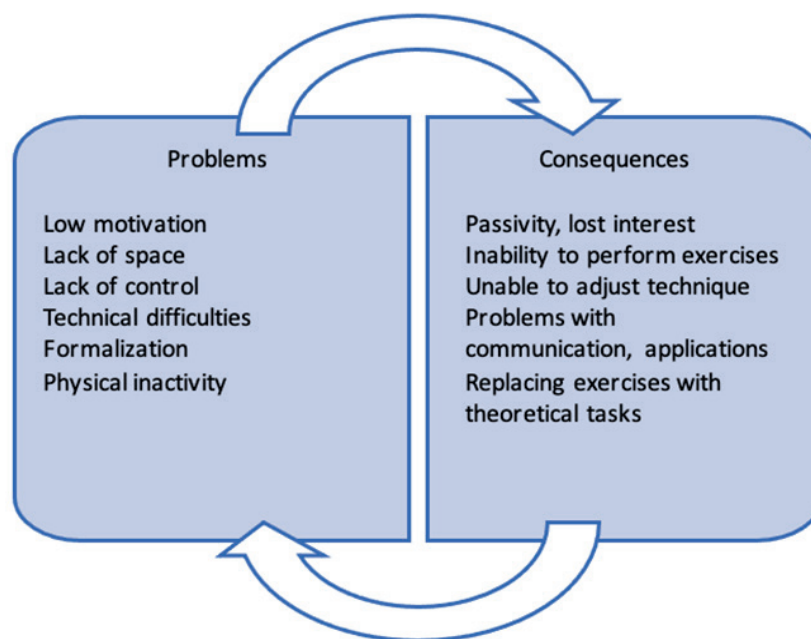
subsections.

### Problems of organizing physical education in the context of distance learning

The distance education format has created a number of challenges for the effective implementation of physical education in higher education institutions.<sup>(11)</sup> Unlike theoretical disciplines, which can be adapted to the online format without significant loss of quality, physical education classes largely depend on the direct presence, availability of space, and live interaction between the teacher and students. The main problems of remote organization of physical education and the consequences of this are shown in figure 1.

As can be seen from this information, distance learning is characterized by a decrease in student motivation, lack of sufficient space for classes, difficulty in controlling and technical difficulties. Reduced chances to engage in physical activity leads to a loss of interest in physical activity, replacement of practice with theory, and, ultimately, deterioration of health and problems with physical and mental health.

Scientific studies have shown that effective organization of physical education in a distance format requires a shift in emphasis from control to motivation support and the use of digital tools and multimedia content.<sup>(11,29)</sup> The positive experience of adapting physical education programs to new realities shows that even in the context of distance learning, it is possible not only to maintain but also to renew young people's interest in physical activity, making it more personally oriented and integrated into everyday life (table 3).



**Figure 1.** Problems and consequences of implementing systemic physical education measures in distance learning

**Table 3.** Positive practices in the remote organization of physical education

Practice / Initiative	Essence / Benefits	Example of implementation
Video classes and YouTube channels of teachers	Regular video tutorials with exercises that you can do at home without equipment	Taras Shevchenko National University of Kyiv - own YouTube channel of the Department of Physical Education
Online challenges and activity marathons	Flash mobs with exercises, 30 Days of Activity, competitions for the best home training system	Erasmus Sport, University of Warsaw
Fitness apps with activity recording	Track steps, workouts, heart rate via Strava, Google Fit, and more	Use as an element of student assessment
Individual tasks with photo/video report	Students send videos of exercises or reports on walks and runs	Lviv State University of Physical Culture
Online classes in real time (Zoom, Meet)	Live communication, mutual motivation, the ability to adjust the technique	University of Helsinki (Finland), University of Wroclaw
Gamification and achievement system	Points system, activity ratings, "sports badges"	University of Tartu (Estonia): e-Fitness Credits program
Psychophysical practices (yoga, breathing exercises)	Developing self-regulation skills, reducing anxiety and stress	Practiced at universities in the Netherlands, Sweden, Italy

When organizing the introduction of physical activity in the process of distance learning, it is advisable for

domestic higher education institutions to introduce such elements of European experience and leading Ukrainian universities as digital platforms, adaptive class formats, integration of psychophysical practices, inclusiveness and gamification. This will not only support physical activity of young people in difficult conditions, but also make it an integral part of the student's lifestyle.

### Current Problems of Implementing Sports Events and Physical Education in Higher Education Institutions of Ukraine

Despite the universally recognized importance of physical education for the formation of a healthy and comprehensively developed personality, a number of systemic problems arise in the process of implementing sports and physical education activities in higher and professional higher education institutions both in Ukraine and in other countries.<sup>(17)</sup> These difficulties are caused by both objective (infrastructural, financial) and subjective (motivational, organizational) factors.

One of the key challenges is typical for most countries, including Ukrainian higher education institutions, is the low level of motivation of students to engage in physical activity, which is exacerbated by the influence of digital technologies and a predominantly sedentary lifestyle.<sup>(7,16,34)</sup> Often, classes are perceived formally as a mandatory part of the curriculum, rather than as a means of maintaining health and improving quality of life.<sup>(17)</sup>

No less significant is the problem of insufficient material and technical resources, especially in regional educational institutions.<sup>(17,33)</sup> The lack of modern equipment, gyms, and grounds reduces the quality and attractiveness of classes. In addition, staffing also does not always meet the requirements of modernity, as there are currently not enough specialists who have innovative methods and can work with the individual needs of young people. Table 4 systematizes information on the main problems of implementing physical education and health work in higher education institutions and possible ways to overcome them.

Table 4. The main problems of implementing physical education and health work in higher education institutions and possible ways to solve them		
Problem	Brief description	Possible solutions
Low motivation of students	Lack of interest, formal attitude to classes	Implementation of variable modules, fitness areas, and individual programs
Material and technical base	Lack of sports equipment, playgrounds	Modernization of infrastructure, partnerships with fitness centers
Personnel problem	Lack of specialists with modern methods of work	Professional development, involvement of young specialists
Imperfect schedule of classes	Inconvenient class times, lack of choice	Flexible scheduling, surveying students about convenient times
Lack of individual approach	Classes do not take into account health status or interests	Adaptive programs, counseling, medical support
Financing	Limited resources for events, inventory	Search for alternative sources of funding, grants, sponsors

Thus, overcoming these problems requires a systematic approach that includes organizational, personnel, financial and pedagogical solutions. Of particular importance is the focus on the needs of students and the creation of conditions for voluntary, conscious involvement in physical education and health activities.

### DISCUSSION

The analysis of physical education and health-promotion practices in Ukrainian and European higher education institutions reveals a marked disparity in systemic integration, resource availability, and student engagement. While physical education is formally included in Ukrainian academic curricula, actual student participation remains low – a finding consistent with Sabirov<sup>(17)</sup> and Dudko et al.<sup>(32)</sup> who identify infrastructural limitations and lack of motivation as primary barriers.

These findings reinforce previous observations that despite regulatory frameworks and institutional mandates, the practical realization of physical education often lags behind. As documented in both Ukrainian and international studies,<sup>(7,10,16,34)</sup> the contradiction between declared policy and actual implementation is a persistent issue. The presence of physical education in official curricula does not necessarily translate into meaningful student involvement or sustained physical activity.

A central limitation identified across multiple sources is the lack of flexibility and personalization in program delivery. Research by Herbert<sup>(7)</sup> and Ahmed & Al Salim<sup>(15)</sup> emphasizes that student engagement improves significantly when programs are adaptable, relevant, and student-centered. The Ukrainian context shows limited integration of such approaches, which may explain the formalistic, compliance-based attitude reported by students.<sup>(17,33)</sup>

Motivational, infrastructural, and staffing barriers are frequently cited, alongside insufficient diversity in course offerings and a lack of individualized adaptation.<sup>(17,33)</sup> These results align with international findings on post-pandemic challenges to physical education and support broader concerns about student disengagement in hybrid and digital environments.<sup>(12,15,16)</sup>

The challenges introduced by distance learning deserve particular attention. Several studies note that in online formats, content quality often deteriorates due to reduced teacher supervision and overformalized assessments.<sup>(11,34)</sup> Nevertheless, some HEIs have responded creatively, implementing digital tools, gamified modules, mobile apps, and real-time virtual classes to preserve student interest and interactivity. Such innovations are evident in both Ukrainian and European contexts.

Digital transformation thus emerges as both a challenge and an opportunity. The findings echo Zenina et al.<sup>(30)</sup>, who reported decreased motivation and interactivity during remote instruction, yet also highlight cases of successful adaptation. Examples such as asynchronous video workouts, gamified challenges, and app-based fitness tracking align with the digital education models proposed by Wang et al.<sup>(11)</sup> and the Erasmus+ Sport initiatives.<sup>(19)</sup>

The European experience, in particular, offers a blueprint for more holistic integration. Universities in Spain, Finland, Estonia, Poland, and France have institutionalized inclusive programs that promote accessibility, diversity, and psychosocial support.<sup>(18,19,26,27,28)</sup> These programs are not limited to physical fitness but contribute to student identity, mental well-being, and social cohesion. The e-Fitness Credits initiative at the University of Tartu<sup>(32)</sup>, for instance, exemplifies how curricular and extracurricular elements can be successfully merged.

A comprehensive and sustainable approach to physical education requires embedding activity programs into institutional strategies. This includes ensuring program flexibility, combining traditional and digital formats, and establishing partnerships with external stakeholders such as sports clubs and municipal health services.<sup>(35)</sup>

The balance between mandatory and voluntary participation remains a subject of debate.<sup>(15,16)</sup> While compulsory classes guarantee a minimum level of coverage, only intrinsically motivated engagement is likely to lead to lasting behavioral change. Therefore, emphasis should be placed not merely on curriculum presence but on cultivating an environment in which physical activity is perceived as a social norm and personal value.

Finally, the persistent gap between national policy objectives and university-level execution suggests that success in reforming physical education requires more than formal mandates. Previous studies<sup>(13,16,29,34)</sup> affirm that effective transformation depends on adequate funding, well-trained personnel, and strategies that engage students as active participants. In this regard, the European examples serve not just as aspirational models but as practical guides for phased adaptation – even under constrained resources.

## CONCLUSIONS

The study demonstrated that a systematic approach to physical education and mass sports in higher education can yield more effective and inclusive outcomes. This is supported by institutional commitment, a student-centered design, and strategic innovation. The quality of these programs is improved through collaboration with qualified instructors and professionals, as well as the use of modern facilities and resources. It is essential to prioritize accessibility and inclusiveness to promote student health and establish physical education as a core value within the educational system. Additionally, regular evaluation and feedback mechanisms can enhance these activities, ensuring they meet students' needs while promoting health, fitness, and teamwork skills.

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None.

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