

Physical culture and recreation: a systematic review

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Abstract

Background and Study Aim In recent years, there has been a growing interest in physical culture and recreation due to their significant impact on population health and quality of life. This work aims to systematically review research in the field of physical culture and recreation to identify current trends, issues, and prospects.

Material and Methods The search for publications was conducted in the Web of Science database using the keywords “Physical Culture” and “Recreational.” As a result, 1192 publications were found, of which 69 were selected for detailed analysis after excluding irrelevant ones. Data extraction and classification into five categories were performed using Python.

Results The analysis revealed that the main research directions include the impact of physical activity on health; the organization and management of sports events; educational aspects of physical culture; social and psychological aspects of recreational activities; and innovative approaches in the field of physical culture. The results showed that physical culture in the context of recreation significantly impacts health and quality of life, playing an important role in the social and cultural context. Modern trends in the development of physical recreation were identified, as well as the significant influence of physical activity and socio-demographic factors on the population's quality of life.

Conclusions The systematic analysis showed that research in the field of physical culture and recreation is crucial for the development of a healthy lifestyle and social integration. The results highlight the need for further research and the implementation of innovative practices to improve the population's quality of life and health.

Keywords: health, quality of life, lifestyle, physical activity, educational, sports

Introduction

In recent years, there has been a growing interest in physical culture and recreation due to their significant impact on population health and quality of life. This necessitates a systematic analysis of current research to identify key trends and directions. Despite a considerable amount of research, there is still a lack of systematized data, complicating the understanding of general trends and the identification of relevant issues. In this context, research on the interrelationship between physical culture and recreation is primarily focused on the following areas.

The Impact of Physical Culture and Sports on Various Aspects of Society

Research shows that participation in sports and recreational activities positively affects physical and mental health, social integration, and quality of life [1, 2]. Authors note that physical activity contributes to improved physical condition and reduces the risk of chronic diseases. The validity of this approach is confirmed by other studies [3, 4]. It has been found that sports events and physical education play an important role in shaping social identity and cultural values, especially among young people.

Historical and Contemporary Aspects of Physical Culture

Historical studies serve as a guide for planning or adjusting the modern environment and organizing societal life. These studies emphasize the significance of physical culture in various social and cultural contexts. For example, the Alpine Club of Canada played a crucial role in the development of mountain tourism and conservation activities in the 20th century [5]. This approach serves as a valuable guide for contemporary clubs' activities. In the Soviet Union, sports events and mass celebrations contributed to forming the image of the «new woman» and maintaining social and political values [6]. This approach remains relevant today.

The Role of Education and Physical Activity in Improving Health

Educational programs aimed at increasing physical activity significantly impact the health and well-being of various age groups. Research shows that students participating in physical recreation programs exhibit higher quality of life and health satisfaction [7, 8]. Additionally, physical education in schools and universities contributes to the development of self-regulation skills and improved physical fitness [9, 10]. All these factors together help maintain an appropriate level of health and physical activity.

Modern Trends in the Development of Physical Recreation

Contemporary research emphasizes the importance of developing infrastructure and programs to support physical recreation. This approach focuses on improving the existing organization of recreational activities, as reflected in various studies [11, 12]. Authors argue that comprehensive physical training programs for tourists enhance the organization and conduct of hiking trips, thereby increasing the time allocated for leisure and recreational activities. Other studies highlight the significant role of innovative approaches to physical activity, which promote broader participation across different population groups [13]. Overall, these and other studies contribute to understanding modern trends in the development of physical recreation and the utilization of physical culture methods and tools.

The Impact of Physical Activity and Socio-Demographic Factors on Quality of Life

Physical activity positively impacts the quality of life of various age groups, particularly among students and young people. Research shows that female students who lead physically active lifestyles exhibit higher quality of life and health satisfaction [2, 14]. Additionally, the impact of physical activity depends on social and demographic factors such as age, gender, and social status [9, 15]. This underscores the necessity for an individualized approach to organizing recreational programs [16, 17, 18]. The combination of various factors considered in these studies helps in understanding ways to address issues and improve quality of life.

Despite numerous studies, there is still a significant lack of systematized data on issues related to physical culture and recreation. The inconsistency in methodologies and various approaches to studying this topic complicates the comprehensive understanding of current trends and the identification of key issues. This work aims to systematically review research in the field of physical culture and recreation to identify current trends, issues, and prospects.

Materials and Methods

In this study, the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol was used for the systematic review of publications on physical culture and recreation. The selection and analysis process of the publications included the following stages:

Search and Selection of Publications

The document search was conducted in the Web of Science (WoS) database for the period from 2014 to 2024 using the keywords «Physical Culture» and «Recreational.» The search resulted in 1192

publications. After applying inclusion and exclusion criteria, 69 publications were selected for further analysis.

Inclusion and Exclusion Criteria

The following inclusion criteria were used for the selection of publications:

- Articles published in peer-reviewed scientific journals.
- Articles containing research on physical culture and recreation.
- Articles published in English.

The exclusion criteria included:

- Duplicate articles.
- Articles not relevant to the research topic.
- Conference papers and dissertations.

Categorization of Publications

The selected publications were categorized as follows:

1. The impact of physical culture and sports on various aspects of society.
2. Historical and contemporary aspects of physical culture.
3. The role of education and physical activity in improving health.
4. Modern trends in the development of physical recreation.
5. The impact of physical activity and socio-demographic factors on quality of life.

Data Analysis

The publications were analyzed in terms of their methodology, results, and conclusions. Special attention was given to identifying current trends, issues, and prospects in the field of physical culture and recreation. Data extraction and classification into five categories were performed using Python.

Results

As a result of the systematic analysis, 47 publications were selected, representing a significant contribution to the field of physical culture and recreation. These publications were classified into relevant categories, allowing for the identification of key trends and the following research directions.

A quantitative analysis of the frequency of various keywords in the studied scientific articles, published in the period from 2014 to 2024 in the Web of Science database, is presented in Table 1. These keywords were selected to identify the main themes and directions in the field of physical culture and rehabilitation.

The Impact of Physical Culture and Sports on Various Aspects of Society

Recent studies emphasize the importance of physical culture and sports in various aspects of social life and health. Many studies examine the role of martial arts in physical culture and their connection with sports and physical education

[19, 20]. Authors note that the analysis of business development in the field of physical culture and sports has shown an increase in the monetization of sports activities. Other educational studies have revealed that focusing on the development of physical culture in young individuals enhances the effectiveness of professional training [21].

Table 1. Descriptive Statistics: Frequency of Mention of Key Themes

Keyword	Count
physical	29
culture	15
students	13
health	12
recreation	11
sports	8
education	6
activity	6
development	4
activities	4

It is also noted that students' health levels are declining despite the recognition of the importance of physical activity [22]. In this context, an important aspect is the training of physical education teachers, which requires the implementation of innovative pedagogical approaches [23, 24]. Authors show that students view sports as a way to fill their free time, although the academic workload limits their level of activity. Proper nutrition plays a significant role in this context. The analysis of students' dietary habits revealed the need for dietary adjustments to improve their health [25, 26].

Strategic vectors for the development of sports and recreational activities highlight the importance of balanced management and the attraction of private capital. Since 2020, during COVID-19, effective forms of sports activity in universities and the role of physical culture have also been subjects of research [27, 28]. Authors note that issues in physical education require the improvement of pedagogical competencies and curricula. Another study indicates that visits from foreign sports delegations have contributed to improving the international reputation of countries [29]. These studies underscore the significance of physical culture and sports for health, education, and socio-economic development.

Historical and Contemporary Aspects of Physical Culture

Studying the historical and contemporary aspects of physical culture allows for an understanding of its importance for health and social integration in various contexts. Various studies [30] have analyzed the concepts of culture, health, and physical culture. This approach helps to evaluate health as one of the core values of physical culture. Other studies [31]

have established a link between the political system and public health practices. Authors have shown that the successful functioning of society is possible when the state maintains control against neoliberal ideologies.

Other studies [32] have revealed a minimal need for individual wellness activities among young people, justifying the importance of a flexible daily schedule. For the elderly, integral support through specialized clubs has been recommended [33]. The necessity of creating conditions for regular physical activity for students was demonstrated in the study by Castro Jimenez et al. [34], which highlighted a decline in agility and flexibility metrics.

Students' expectations regarding future work in the field of physical education were discussed in the study by Alfonso Gonzalez-Rivas et al. [35]. The authors identified prospects in recreational dance and sports tourism. Another study [36] examined the role of wellness hikes and orienteering in improving the physical condition of younger schoolchildren. Research by Skurikhina et al. [37] showed that fitness yoga is an effective means for strengthening the psychophysical state of female students.

Separately, studies on the ideas of past educators about the formation of health culture should be highlighted. Iermakova [38] summarized the ideas affirming the importance of physical education for the development of a healthy personality. The importance of physical education for developing a healthy personality was emphasized in studies examining the ideas of past educators [35, 36]. The influence of physical culture on the planning of garden cities between 1898 and 1903 revealed a biopower strategy for regulating the lives of the working class [39]. Additionally, the formation of physical culture among working-class youth in the 1920s was discussed in another study [40]. The authors demonstrated the role of physical activity in improving health and social integration. An analysis of the activities of the first hygienic gymnasiums founded in the 1860s revealed their role in supporting bodily culture [41]. The results showed that ideological and cultural connections among gymnasium users promoted the spread of self-control and recreation based on physical exercises.

These studies emphasize the importance of a comprehensive approach to physical culture, encompassing both historical and contemporary aspects. Understanding this context allows for the more effective implementation of physical education and wellness programs, contributing to the improvement of health and quality of life for various population groups.

The Role of Education and Physical Activity in Improving Health

Studying the educational and wellness aspects of physical culture reveals the significance of physical

activity for various population groups and suggests effective health improvement strategies. Various studies have analyzed the definitions of culture, health, and physical culture [30]. Authors identified a high valuation of health as a key value among students. Another study highlighted the relationship between the political system and public health, demonstrating the importance of state control in ensuring the welfare of society [31].

Some studies highlight the insufficient need for individual wellness activities among female students and the importance of a flexible daily schedule for improving their health [32]. Other researchers [38] emphasize the necessity of creating conditions for regular physical activity for students, noting the decline in agility and flexibility metrics after entering university. The study by Skurikhina et al. [37] explored students' expectations regarding future work in the field of physical education, identifying promising areas such as recreational dance and sports tourism. Another study demonstrated the potential of fitness yoga to strengthen the psychophysical state of female students, showing positive results from this approach [40].

The implementation of wellness hikes and orienteering has proven effective in improving the physical condition of younger schoolchildren [39]. Equally important is the focus on programs for other age groups. For example, the development of physical culture programs for the elderly highlighted the need for integrated support through specialized clubs [33, 34].

These studies underscore the necessity of a comprehensive approach to physical culture and healthcare, ensuring the improvement of health and quality of life for various population groups.

Modern Trends in the Development of Physical Recreation

Research shows that outdoor physical recreation is influenced by socio-economic factors, urban environments, and sports infrastructure. A study on modern trends in physical recreation identified key factors that facilitate and limit the use of physical culture and sports during leisure time [42]. Additionally, an analysis of sociological studies highlights the influence of consumer culture on sports events, which are perceived as rituals and parareligious phenomena [43]. The relationship between physical recreation and academic performance was confirmed in the study where a systematic approach to educational activities contributed to the social development of the community [44].

Another study [45] found that adaptive motor recreation for children with mild intellectual disabilities shows positive results in improving their physical condition. The authors argue that

unfavorable economic and environmental conditions increase the need for specialized rehabilitation technologies for this category of children.

Equally important are studies focusing on the adult population. The study [46] showed that adults aged 50-60 choose recreational swimming to improve their health and physical fitness. Such activities help strengthen the cardiovascular and nervous systems. Another study [47] found that organizing mass sports events at industrial enterprises also proved effective in improving workers' health and productivity.

Thus, the development of outdoor physical recreation requires a comprehensive approach that includes socio-economic, sociocultural, and motivational aspects.

The Impact of Physical Activity and Socio-Demographic Factors on Quality of Life

Modern research in the field of physical activity and health highlights the importance of various factors influencing the quality of life and physical activity of different population groups. Physical activity among students has a significant impact on their overall quality of life and health satisfaction, particularly among female students in physical education faculties and participants in physical recreation [2]. Higher levels of quality of life and health satisfaction are also associated with age, marital status, and professional activity [4].

Studies show that female students who lead physically active lifestyles demonstrate higher results in physical, psychological, and environmental aspects compared to less active ones [1, 8, 11, 12]. Additionally, physical activity among students can be influenced by various social and demographic factors, such as motivation, the need for praise, and the availability of free time [7, 14].

Research also emphasizes the importance of structured physical activity programs and their impact on the quality of life of different age groups. For example, physical activity and recreation programs aimed at adolescents and children contribute to improving their physical fitness and overall health [3, 9]. An important aspect is the influence of the social and cultural environment on physical activity. For instance, studies on Chinese migrant communities show that their participation in recreational activities depends on multiple factors, including cultural capital [16].

Similarly, studies on the role of sports clubs emphasize the importance of social integration and the preservation of traditions in the formation of physical culture [3, 5]. Several studies analyze the legal regulation of adaptive physical culture, especially in the context of providing services to children with disabilities [15, 18]. Physical activity is a multifaceted phenomenon requiring a comprehensive approach to improve the quality of

life and health of various population groups [6, 10, 17, 18].

These results underscore the significance of physical culture and recreation in various aspects of societal life. They demonstrate the diversity of research in this field, covering both historical and contemporary aspects, and highlight the need for further studies to address identified issues and strengthen positive trends.

Discussion

The aim of this study was to systematically analyze publications on issues of physical culture and recreation to identify current trends, problems, and prospects in this field. The analysis showed that physical culture and sports significantly impact health and quality of life, playing an important role in the social and cultural context. Modern trends in the development of physical recreation were identified, as well as the significant influence of physical activity and socio-demographic factors on the quality of life of the population.

The Impact of Physical Culture and Sports on Various Aspects of Society

The results of our systematic analysis confirm the significant impact of physical culture and sports on various aspects of society. Sports activities contribute to the improvement of physical and mental health, social integration, and stress reduction [48, 49]. Comparisons with previous studies [50, 51] show that these trends persist and strengthen in the context of the modern social and economic environment [7, 15, 18]. However, despite the obvious advantages, there is a lack of systematic data on the impact of physical activity on social mobility and economic development, which requires further research. Additionally, most existing studies focus on short-term effects, while long-term consequences are insufficiently studied.

Physical culture and sports also play an important role in shaping cultural identity and social cohesion. Research shows that participation in sports events strengthens social bonds and improves communication skills, which is particularly important for youth and vulnerable populations [1, 9, 52]. However, despite these positive aspects, significant disparities exist in the accessibility of sports activities for different socio-economic groups. The lack of infrastructure and financial support in some regions limits opportunities for physical activity, which requires attention from policymakers and public organizations. More targeted programs are needed to address these barriers and ensure equal access to sports resources.

The impact of physical activity on stress reduction and mental health improvement is confirmed by numerous studies [49, 53, 54]. Regular sports activities promote the production of endorphins,

which help cope with depression and anxiety. This is especially important in the context of modern challenges, such as the COVID-19 pandemic, when the level of stress in society has significantly increased [4, 13]. However, despite substantial evidence of the positive impact of physical activity on mental health, existing programs often do not consider the individual needs and preferences of people.

It is important to develop more personalized approaches to physical activity that consider the diversity and unique circumstances of each individual to maximize the benefits for mental health. These aspects also highlight the importance of physical culture as a means of improving quality of life and social well-being. However, further research is needed to gain a deeper understanding of the impact of physical activity on social mobility and economic development to develop effective strategies that enhance life in various social contexts.

Historical and Contemporary Aspects of Physical Culture

Our analysis of the historical and contemporary aspects of physical culture shows that its significance remains highly relevant. Historical data confirm that physical culture has played an important role in shaping societal norms and values, a trend also observed in modern conditions [1, 9, 13]. Physical culture has contributed to the development of social identity and the strengthening of the moral foundations of society [55, 56, 57]. However, despite numerous studies, there is a limitation in evidence due to the lack of research examining long-term social and cultural changes brought about by physical culture.

Contemporary research confirms that physical culture continues to play an important role in society, promoting a healthy lifestyle and social integration. The impact of physical culture on the health and well-being of the population is well documented; however, more attention needs to be given to various aspects such as accessibility and equality in participation [1, 4, 58, 59]. Modern studies often focus on short-term effects and do not consider cultural and historical contexts, requiring a more comprehensive approach.

Physical culture also plays an important role in education, contributing to the comprehensive development of individuals. It helps develop the physical and social skills necessary for successful integration into society [14, 16, 60]. However, the modern education system does not always provide equal opportunities for all students, requiring improvements in infrastructure and programs to ensure the accessibility of physical culture for all population groups. More research is needed to identify best practices and develop effective

programs that take into account cultural and social differences.

The analysis of historical and contemporary aspects of physical culture highlights its significance in shaping societal norms and values. The impact of physical culture on social and cultural changes remains relevant today. To further understand this, it is necessary to conduct research that covers the long-term social and cultural changes brought about by physical culture, in order to better integrate this data into modern physical culture and recreation development programs.

The Role of Education and Physical Activity in Health Improvement

Education and physical activity are key factors in improving health. The results of our review confirm that integrating physical activity into educational programs promotes healthy habits in young people, consistent with the findings of many studies [1, 4, 14, 61, 62]. Participation in physical education and sports activities in schools and universities positively impacts students' physical and mental health, improving their physical fitness and reducing stress levels. However, despite significant achievements in this area, there is a lack of systematic data on the long-term effects of such programs.

A limitation of our analysis is the insufficient number of longitudinal studies examining the long-term effects of integrating physical activity into educational programs. Many studies focus on short-term outcomes, making it difficult to assess their impact on health over a lifetime. More research is needed to study the sustainability of healthy habits formed within educational programs and their influence on adult life.

The importance of physical activity in educational institutions also lies in the formation of social capital and the improvement of students' cognitive abilities. Active students demonstrate better academic performance and a higher level of social integration [9, 13, 63, 64, 65]. However, existing programs often do not consider the individual differences and needs of students, requiring a more personalized approach.

Despite the positive aspects, many educational institutions face challenges in implementing effective physical activity programs. Lack of resources, limited infrastructure, and insufficient teacher training hinder the proper execution of these programs [1, 16, 66]. To address these issues, it is necessary to improve educational policies and attract additional resources.

Overall, education and physical activity are key factors in forming healthy habits and improving health. Integrating physical activity into educational programs promotes a healthy lifestyle among young people, as confirmed by the results of our analysis. However, further research is needed to study the

long-term effects of such programs and to optimize them for achieving maximum health benefits.

Modern Trends in the Development of Physical Recreation

Contemporary research shows a growing popularity of physical recreation. Socio-economic conditions and the availability of infrastructure play a significant role in this process [3, 16, 17]. The development of urban environments, the creation of parks, and sports facilities contribute to increased public engagement in outdoor physical activities. Comparisons with previous data indicate that motivational aspects remain critical factors, as support from family and the community stimulates participation in recreational physical culture.

However, despite the positive trends, there is a lack of research examining the impact of digital technologies on physical activity. The use of mobile applications and fitness trackers can contribute to increased physical activity, but more data is needed to assess their effectiveness and long-term impact. Existing data indicate that technologies can both stimulate and distract from sports activities, requiring a more in-depth evaluation.

A limitation of our analysis is the lack of data on the long-term effects and sustainability of motivational factors. Many studies focus on short-term outcomes without considering the impact of social and economic changes on physical recreation. Additional research is needed to study the persistence of interest in physical activity across different age groups and conditions.

Moreover, it is important to consider regional differences in the availability of recreational services and infrastructure [5, 10, 67]. In some regions, access to sports facilities and programs is limited, necessitating the development of more inclusive strategies. Improving accessibility and diversifying physical recreation programs can increase engagement and enhance the population's quality of life.

Overall, contemporary research demonstrates a growing popularity of physical recreation, highlighting the importance of socio-economic conditions and infrastructure availability. Motivational aspects continue to play a key role in engaging people in physical activity. To gain a deeper understanding, it is necessary to study the impact of digital technologies on physical activity and develop new approaches that encourage increased participation in physical recreation.

The Impact of Physical Activity and Socio-Demographic Factors on Quality of Life

Physical activity has a significant impact on quality of life, as confirmed by numerous studies. Many results highlight the importance of socio-demographic factors such as age, gender, marital status, and income level [5, 10, 11, 68]. Age and

gender significantly influence the level of physical activity, with men generally being more active than women, and younger individuals being more active than older adults. Marital status also plays a crucial role: having a partner or children can either stimulate or limit physical activity depending on the circumstances.

Overall, the categories of research highlighted in the review are detailed in Table 2, ranked by the number of publications. This allows for the identification of the most extensively studied areas within physical culture and recreation, providing insight into prevalent research trends and priorities in the field.

In our opinion, attention should also be paid to the most cited publications (Table 3). The data in Table 3 indicate the most sought-after research topics in the context of the interrelationship between physical culture and recreation.

Nevertheless, there are limitations in our analysis related to the lack of studies examining the impact of physical activity on quality of life in different cultural contexts. Most research focuses on Western countries, while data from developing countries and cultural communities remain limited. This restricts our understanding of how social and cultural factors may influence the relationship between physical activity and quality of life.

Additionally, it is essential to consider the impact of socio-economic factors such as income level and education. People with higher income and education

levels generally have better access to resources for physical activity, positively affecting their quality of life [6, 8, 12]. However, low-income groups often experience a lack of accessible programs and infrastructure for physical activity, necessitating the development of targeted policies to improve the situation.

It is also important to note that the impact of physical activity on quality of life can vary depending on the level of activity and type of exercise. For example, intensive aerobic exercises may have a more significant impact on physical health, while lighter forms of activity, such as walking, may be more accessible and sustainable for a broader audience. Further research is needed to better understand which forms of physical activity are most effective for improving quality of life in different demographic groups.

Overall, physical activity has a significant impact on quality of life, with socio-demographic factors playing an important role. Our analysis highlights the importance of age, gender, marital status, and income level in this context. To gain a more comprehensive understanding, it is necessary to conduct research that considers cultural differences and their influence on quality of life in various demographic groups. This will enable the development of more effective physical activity and recreation programs.

Limitations of Evidence and Review Processes

Table 2. Categorized Research in Physical Culture and Recreation

No	Topic		Summary	Cited Sources
1	The impact of physical culture and sports on various aspects of society.	Professional and Applied Physical Training	Explores the training programs and their effects on students and professionals in pedagogical fields.	[1, 20, 21]
		Psychological and Social Aspects of Sports	Focuses on the psychological and social dimensions of sports participation, including motivation and well-being.	[7, 14, 25, 31, 39, 41]
		Adaptive and Special Physical Culture	Addresses adaptive physical culture for individuals with special needs, including legal and social aspects.	[15, 17, 27, 37]
2	Historical and contemporary aspects of physical culture.	Historical Development of Physical Culture	Examines the evolution of physical culture from historical and contemporary perspectives, highlighting key milestones and developments.	[5, 19, 36, 38, 40, 42]
3	The role of education and physical activity in improving health.	Educational and Physical Activities in Health Improvement	Discusses the integration of educational programs and physical activities to enhance health and well-being, with a focus on youth and students.	[3, 8, 12, 24, 30, 32, 35]
4	Modern trends in the development of physical recreation.	Trends in Physical Recreation	Analyzes current trends in physical recreation, including new forms of outdoor activities and their benefits.	[9, 18, 26, 29, 33, 34, 43]
5	The impact of physical activity and socio-demographic factors on quality of life.	Socio-Demographic Factors in Physical Culture	Studies the influence of socio-demographic factors on participation and attitudes towards physical culture.	[2, 4, 22, 28]

Table 3. Most Cited Research in Physical Culture and Recreation

Source	Citation Count	Category	Summary
[37]	29	Adaptive and Special Physical Culture	Substantiates the use of fitness yoga for improving psycho-physical and psycho-social health of special health groups' girl students.
[11]	13	Quality of Life and Physical Activity	Analyzes the influence of students' physical fitness on the quality and organization of sports and health tourism trips.
[38]	8	Historical Development of Physical Culture	Reveals the historical development of health culture formation in educational thought from the Renaissance to the neo-classical period.
[41]	6	Historical Development of Physical Culture	Examines the role of hygienic gyms in the social and cultural differentiation among the bourgeoisie in the 19th century.
[69]	5	Psychological and Social Aspects of Sports	Discusses the place of martial arts in physical culture, highlighting their relationship to sport, physical education, and recreation.
[43]	5	Psychological and Social Aspects of Sports	Analyzes sociological perspectives on free time, tourism, and recreation, highlighting contemporary critical theory and postmodern culture.
[27]	5	Quality of Life and Physical Activity	Assesses the impact of educational engagement in physical activity on students' activity levels during and after COVID-19 lockdowns.

Our review identified several limitations. First, there is a shortage of longitudinal studies, making it difficult to assess the long-term effects of physical activity. Second, most research focuses on developed countries, limiting our understanding of global trends. Additionally, the review process was constrained by data availability and variability in methodologies.

Implications of the Results for Practice, Policy, and Future Research

The results of our analysis have important implications for practice and policy. It is necessary to develop and implement programs aimed at integrating physical activity into educational and workplace settings, as well as improving infrastructure for physical recreation. Future research should focus on longitudinal studies and cross-cultural comparisons to gain a more comprehensive understanding of the impact of physical activity on health and quality of life in various contexts.

Conclusions

The systematic analysis of publications shows that physical culture and recreation play an important role in improving health, social integration, and quality of life. Despite a significant amount of research, several issues require further investigation, such as the long-term effects of physical activity and educational programs, and the impact of modern technologies on recreational activities. Further studies are needed to understand the cultural and socio-economic factors affecting participation in physical culture and recreation. Future research should aim to develop effective strategies that enhance access to physical activity and recreation for different demographic groups and examine the impact of these factors on a global level.

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