Reconstruction and Innovation of Undergraduate Physical Education Teaching Content from the Perspective of College Students' Physical Health

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Abstract: With the deepening implementation of the "Healthy China 2030" plan, the issue of college students 'physical health has become a key focus in higher education. Based on the current status of college students' physical health, this paper analyzes the main challenges faced by undergraduate physical education teaching and proposes a theoretical framework and practical path for the reconstruction and innovation of teaching content. The study suggests that undergraduate physical education teaching should break through the traditional "competitive sports" orientation and build a diversified teaching content system with "health promotion" as the core, integrating physical fitness improvement, skill mastery, healthy behavior cultivation, and the inheritance of sports culture. By innovating teaching methods, optimizing evaluation mechanisms, and integrating teaching resources, undergraduate physical education teaching can achieve a transformation and upgrading from "physical training" to "health literacy cultivation," providing teaching practice support for comprehensively improving the physical health level of college students.

Keywords: College Students' Physical Health; Undergraduate Physical Education; Restructuring of Teaching Content; Teaching Innovation; Health Literacy

1. Introduction

The Realistic Connection Between College Students' Physical Health and Physical Education Teaching

In recent years, multiple national physical fitness monitoring reports have indicated that the physical health status of college students in China has shown a concerning trend. Indicators such as vital capacity and endurance have continued to decline, while the rates of overweight and obesity have risen, myopia remains persistently high, and mental health issues have become increasingly prominent. This phenomenon stands in stark contrast to the talent cultivation objectives of higher education, drawing widespread social attention [1].

The university years represent a critical phase for students 'physical development and the cultivation of healthy behaviors. As a vital component of higher education, undergraduate physical education plays a key role in enhancing students' physical fitness, imparting sports skills, and fostering healthy lifestyles. However, traditional undergraduate physical education often follows the sports models of primary and secondary schools, focusing primarily on technical instruction of competitive sports and physical fitness testing. This approach fails to adequately consider the unique physical and mental development characteristics of college students or their social adaptation needs, resulting in a disconnect between the teaching content and the actual health requirements of university students.

Against this backdrop, re-examining the value orientation of undergraduate physical education, reconstructing the teaching content system, and innovating teaching implementation approaches have become urgent requirements for improving college students 'physical health. This paper aims to explore the theoretical basis, core elements, and innovative strategies for reconstructing undergraduate physical education content from the perspective of college students' physical health, providing references for the reform of physical education in higher education institutions.

2. Analysis of the Real Challenges and Dilemmas in Undergraduate Physical Education Teaching

2.1 Outdated Teaching Philosophy: The Conflict Between Competitive Orientation and Health Needs

For decades, undergraduate physical education has been heavily influenced by the "competitive sports" paradigm, with teaching priorities often focused on the detailed instruction of athletic techniques and the quantitative assessment of performance metrics. This approach overlooks the multifaceted value of sports, particularly its fundamental role in promoting physical and mental well-being and enhancing quality of life. College students exhibit diverse characteristics, with significant variations in their sports needs based on different majors, physical conditions, and interests. A uniform approach to competitive sports instruction fails to meet individualized health requirements, leading to resistance among some students and undermining teaching effectiveness.

2.2 The Teaching Content is Single: the Traditional Project is Out of Step with the Times

Current undergraduate physical education curricula predominantly focus on traditional competitive sports like track and field, basketball, volleyball, and football, lacking timely updates. Growing up in the digital age, contemporary college students demonstrate broader athletic interests, showing greater enthusiasm for emerging sports such as rock climbing, skateboarding, yoga, and outdoor team-building activities. Meanwhile, theoretical components including health education, sports nutrition, injury prevention, and mental health promotion remain severely underrepresented in teaching. This structural imbalance in content makes it challenging for physical education to comprehensively address the multidimensional needs of college students' physical well-being.

2.3 Outdated Teaching Methods: Imbalance between Skill Transmission and Ability Cultivation

Traditional physical education predominantly employs a rigid "lecture-demonstration-practice" model, where teachers dominate the process while students passively absorb instruction. While this approach facilitates standardized mastery of sports techniques, it stifles the development of students' autonomous learning, collaborative inquiry, and innovative thinking. Modern pedagogical principles emphasize student agency, advocating for comprehensive skill development through project-based learning, cooperative learning, and situational simulation. In promoting physical health, it is crucial to equip students with self-monitoring, self-directed exercise, and lifelong fitness capabilities-precisely the weak links in current teaching methodologies.

2.4 One-Sidedness of the Evaluation System: the Separation of Result Evaluation and Process Attention

The current sports evaluation system over-relies on summative assessments, primarily using physical fitness test scores and sports skill compliance as key metrics. This one-size-fits-all approach overlooks individual differences and progress, failing to fully reflect improvements in students' health literacy and changes in physical behavior. Even with effort, students with weaker physical foundations often struggle to achieve ideal evaluations, which discourages their enthusiasm for sports participation. The evaluation system should be restructured to emphasize formative and developmental assessments, focusing on student engagement, progress, and the cultivation of healthy behaviors[2].

3. Theoretical Basis: Reconstructing Teaching Content from the Perspective of Pluralistic Theory

3.1 From the Perspective of Health Promotion Theory

The health promotion theory proposed by the World Health Organization emphasizes enhancing individuals' health control capabilities through strategies such as creating supportive environments, developing personal skills, and strengthening community actions. When applied to undergraduate physical education teaching, this means that the teaching content should not be limited to the transmission of motor skills but should be expanded to include health knowledge education, self-management skill cultivation, and the creation of health-supportive environments. Teaching should help students understand the multidimensionality of health (physiological, psychological, and social adaptation) and acquire the ability to develop personalized exercise prescriptions, monitor health indicators, and adjust lifestyle habits.

3.2 From the Perspective of the Lifelong Sports Concept

The lifelong sports philosophy posits that the core objective of physical education is to cultivate students 'capacity and habits for sustained participation in sports activities. This perspective requires undergraduate physical education curricula to emphasize sustainability and transferability-ensuring that knowledge, skills, and interests acquired in class can be extended beyond the classroom and into post-graduation life. The curriculum should focus on lifelong applicability of sports disciplines (e.g., walking, swimming, tai chi), fostering students' awareness and ability for self-directed exercise, rather than merely pursuing short-term athletic performance gains.

4. Framework for Restructuring the Content System of Undergraduate Physical Education

4.1 Core Objective Positioning: From "Skill Mastery" to "Health Literacy Cultivation"

The restructured undergraduate physical education curriculum should prioritize enhancing students' "physical and health literacy" as its core objective. This literacy encompasses four key dimensions: sports knowledge and cognition (understanding sports science principles and health-related concepts), sports skills and abilities (mastering diverse athletic techniques and developing self-training capabilities), healthy behaviors and habits (establishing regular exercise routines and adopting scientifically sound fitness practices), and sports-related emotions and values (cultivating a health-first mindset, fostering sports ethics, and developing aesthetic appreciation). The instructional content should be systematically designed around these four dimensions to form an organically integrated teaching framework.

4.2 Content Module Design: Constructing a "Four-in-One" Teaching Content System

1. Basic Health Promotion Module: This module includes health assessment and monitoring, fundamentals of exercise physiology, nutrition and weight management, injury prevention and rehabilitation, and mental health regulation. It aims to help students establish a scientific concept of health and acquire the basic knowledge and skills for self-health management [3].

2. Core Motor Skills Module: This module comprises three categories of sports programs: (1) Lifelong Sports (swimming, walking, cycling, Tai Chi, etc.); (2) Team Sports (basketball, soccer, volleyball, and other team-based activities); (3) Emerging Interest Sports (skateboarding, frisbee, yoga, etc.). Students may select programs based on their personal interests and needs, ensuring a diverse range of activities including aerobic exercises, strength training, and flexibility training.

3. Sports Culture Inheritance Module: This module encompasses traditional Chinese sports culture, the Olympic spirit, and campus sports culture. Through theoretical lectures, practical experiences, and cultural activities, it aims to enhance students' cultural identity and sports participation, while fostering an understanding of the social value and spiritual essence of sports.

4. Autonomous Exercise Practice Module: This module includes the formulation of individual exercise prescriptions, utilization of exercise apps, and execution and adjustment of fitness plans. Through project-based learning and practical tasks, it cultivates students' abilities to independently design, implement, and evaluate exercise plans, laying the foundation for lifelong physical activity.

4.3 Hierarchical Structure: Constructing a Three-level Curriculum System of "Compulsory+Elective+Extension"

1. Compulsory Basic Level: Designed for all students, it covers fundamental knowledge of health promotion and basic motor skills, ensuring that every student acquires essential health literacy and exercise capabilities.

2. Elective Specialization Level: Offers multiple sports disciplines for students to choose from, catering to diverse interests and developmental needs, with the option to master 1-2 sports skills in depth.

3. Advanced Development Level: This includes sports team training, athletic competitions, outdoor expansion activities, and health-themed workshops, providing in-depth development opportunities for students with higher needs.

5. Innovative Strategies for Undergraduate Physical Education Teaching Methods

5.1 Digital Empowerment of Teaching: Technology Integration and Innovation

Leverage modern technologies like mobile internet, wearable devices, and virtual reality to innovate sports education. For instance, sports apps can track students 'daily activity levels for integrated in-class and out-of-class management; heart rate monitors guide students in scientifically controlling exercise intensity; video analysis helps refine technical movements; and online health platforms provide personalized learning resources. This technology integration not only boosts teaching efficiency but also enhances students' learning experience and self-management skills.

5.2 Problem-oriented Learning: Contextualized Teaching Design

Design scenario-based teaching tasks that address real-world health challenges. For example, tackle practical issues like "how to relieve neck and shoulder pain from prolonged sitting," "scientific methods for fat loss and muscle gain," or "marathon preparation strategies." Guide students through a step-by-step process: researching, planning, testing, and refining their approaches. This method enhances the relevance and practicality of learning, while cultivating students' ability to solve real-world health problems.

5.3 Integration of In-Class and Out-of-Class: Expanding the Boundaries of Teaching Time and Space

Breaking the traditional time and space constraints of physical education classes, we establish an integrated teaching network combining "classroom instruction + extracurricular clubs + online communities + social practice". Classroom teaching focuses on methodological guidance and core skill development; extracurricular clubs provide platforms for interest cultivation and skill refinement; online communities facilitate resource sharing and interactive exchanges; social practice (e.g., community health promotion, sports volunteer services) expands the social applications of physical education. Through this integrated design, physical education transitions from a closed classroom to an open campus and social space.

5.4 Differentiated Teaching Strategies: Focusing on Individual Needs

To address variations in students' physical fitness, athletic abilities, and interests, we implement differentiated teaching strategies. Through initial assessments, students are stratified to set tailored goals, deliver customized content, and establish individualized evaluation criteria. Additionally, personalized guidance is enhanced through one-on-one technical coaching and customized exercise prescriptions. This approach improves teaching precision and effectiveness, ensuring every student achieves progress from their baseline level.

6. The Reform Path of the Undergraduate Physical Education Teaching Evaluation System

6.1 Change of Evaluation Concept:From "Screening" to "Development"

Establish the evaluation philosophy of 'promoting learning and health through assessment,' treating evaluation as a tool to enhance students 'health literacy development rather than a screening mechanism. The evaluation should focus on the students' progress process, effort level, and ability improvement, rather than merely on the final outcome.

6.2 Expansion of Evaluation Content: Multidimensional Health Literacy Assessment

Establish a comprehensive evaluation system covering four dimensions: knowledge, skills, behaviors, and emotions. This may include: health knowledge testing (theoretical assessment), demonstration of motor skills (technical evaluation), health behavior documentation (daily exercise logs), physical fitness testing (physical performance assessment), and learning process performance (classroom participation, teamwork spirit). Multidimensional evaluation can more comprehensively reflect the development status of students' health literacy [4].

6.3 Innovation of Evaluation Methods: Diversified Evaluation Tools

The evaluation system integrates formative and summative assessments, combines quantitative and qualitative approaches, and incorporates teacher evaluations with peer and self-assessments. For instance, it utilizes digital portfolios to document students' developmental progress, incentivizes regular exercise through health behavior check-ins, evaluates comprehensive practical skills via project presentations, and employs growth-oriented

scoring to track individual advancement.

6.4 Application of Evaluation Results: Promoting Teaching Improvement and Student Development

Establish a feedback and application mechanism for evaluation results. The evaluation outcomes should not only be used to assess student performance but also applied to diagnose teaching issues, adjust instructional strategies, and provide personalized guidance. Additionally, students should be provided with detailed evaluation feedback to help them understand their strengths and weaknesses, and clarify directions for improvement.

7. Implementation Guarantee: Support System for the Reconstruction of Undergraduate Physical Education Teaching Content

7.1 Faculty Development: Enhancing Teachers' Health Promotion Competence

Teachers are the key implementers of teaching reform. It is necessary to enhance the professional competence of physical education teachers in health promotion through specialized training, academic exchanges, and practical research. The focus should be on cultivating teachers' abilities in health assessment and guidance, personalized exercise prescription formulation, and mental health promotion, while simultaneously strengthening their digital teaching literacy and innovative teaching capabilities. Interdisciplinary teaching teams should be established, incorporating professionals from health education, sports medicine, psychology, and other fields into physical education to form a diversified faculty structure.

7.2 Integration of Teaching Resources: Optimizing the Conditions of Physical Education Teaching

Enhance the construction and renovation of sports facilities, adding equipment tailored for emerging sports and personalized training needs. Develop a digital sports teaching resource library, creating online courses, instructional videos, and virtual simulation experiments. Integrate both on-campus and off-campus resources by establishing partnerships with community sports centers, medical institutions, and sports enterprises to expand the implementation scope and resource support for sports education.

7.3 Institutional Mechanism Innovation: Creating a Health-Promoting Campus Environment

Refine the school's sports management framework by incorporating students' physical fitness metrics into departmental and faculty performance evaluations. Establish a multi-departmental collaboration mechanism to strengthen coordination between physical education units, student affairs offices, mental health centers, and the university hospital. Reform the sports curriculum management system by introducing flexible scheduling options, allowing students to select suitable sports activities and exercise durations based on their individual needs. Foster a vibrant campus sports culture through events like sports festivals, health-themed months, and athletic challenges to boost students' enthusiasm and initiative in participating in physical activities.

7.4 Quality Control System: Ensuring Continuous Improvement of Teaching Reform

Establish a quality monitoring system for undergraduate physical education teaching and conduct regular evaluations of teaching reform outcomes. Collect feedback through student physical health test data tracking, teaching satisfaction surveys, and graduate health behavior monitoring to assess the actual effectiveness of teaching reforms. Based on evaluation results, continuously adjust and optimize teaching content and methods, forming a virtuous cycle mechanism of "design-implementation-evaluation-improvement" [5].

8. Conclusion

Promoting physical health among college students is a systematic endeavor, where undergraduate physical education reform serves as the foundational element. To meet the health demands of the new era and the requirements of educational development, undergraduate physical education must transcend traditional frameworks through profound content restructuring and methodological innovation. The proposed framework emphasizes "health literacy cultivation" as the core objective, establishing a diversified, hierarchical, and

personalized teaching content system. By innovating teaching methods and reforming evaluation systems, this approach facilitates the transition from "skill transmission" to "health promotion."

This reform not only requires the efforts of the physical education department, but also systematic support at the school level and collaboration among multiple departments. At the same time, the reform should adhere to the principle of adapting measures to local conditions, with different universities exploring suitable implementation paths based on their own resources and student characteristics. With the deepening of the "Healthy China" strategy and the continuous advancement of connotative development in higher education, the reform of undergraduate physical education will surely usher in new development opportunities, making due contributions to cultivating well-rounded individuals who excel in moral, intellectual, physical, aesthetic, and labor education.

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