

Research on practical difficulties and optimization paths of promoting scientific fitness for college students in the context of national fitness

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Abstract: This study investigates the promotion pathways for scientific fitness among university students in the context of nationwide fitness initiatives, primarily employing literature review methods. Key findings indicate that as a vital social component, university students play a pivotal role in advancing public fitness programs. Current challenges in promoting scientific fitness participation among students include limited financial capacity and awareness, insufficient knowledge and methodologies, inadequate supporting facilities, ineffective promotional guidance, and room for improvement in management practices. The study proposes multiple strategies to enhance student engagement: establishing robust fitness promotion mechanisms, refining legal frameworks for public fitness initiatives, integrating fitness programs with commercial investments, and cultivating professional fitness instructors. These measures aim to foster scientific fitness practices among college students, thereby accelerating the popularization and development of nationwide fitness initiatives.

Keywords: national fitness; college students; scientific fitness; promotion path

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1.Problems in promoting scientific fitness among college students

1.1 The poor fitness consumption ability and weak awareness of college students

Currently, college students have become a significant demographic in national fitness initiatives. Their younger age, abundant free time, superior physical fitness, and close-knit peer networks give them distinct advantages in choosing fitness activities. However, there remains a substantial gap in their fitness engagement. Practical limitations such as limited financial capacity and weak awareness hinder their participation. According to incomplete statistics, Chinese college students' average monthly living expenses in 2019 were 1,282 yuan, with only 25.81% exceeding 1,500 yuan. Meal expenses alone accounted for 46.91% of monthly budgets, while unavoidable costs like transportation, academic expenses, and communication further reduced disposable funds. This scarcity makes it challenging to sustain fitness activities during their formative years, resulting in underutilization of scientific fitness methods. Moreover, financial constraints have weakened fitness awareness among some students, creating a vicious cycle of 3-4 years of limited funding that exacerbates declining participation rates in college student fitness programs^[1].

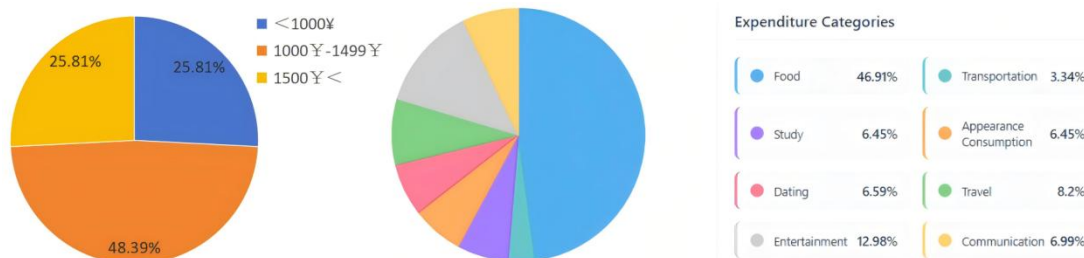


Figure 1 Monthly living expenses of college students in three tiers

Figure 2 Monthly expenditure of college students

1.2 Lack of scientific fitness knowledge and methods

Currently, college students primarily obtain fitness knowledge and methods through online resources and professional trainers. Benefiting from the convenience of short video content and the rapid rise of self-media platforms, numerous fitness-related videos and blog posts flood social media channels. Experts, coaches, and fitness

bloggers like Liu Genghong and Zhuo Zhonghua have established live-streaming accounts, rapidly disseminating fitness knowledge to students^[2]. However, the internet's virtual nature raises concerns about the authenticity, accuracy, and safety of online fitness information. Blindly following fitness influencers has led to incidents like a girl's corpus luteum rupture, which has dampened enthusiasm among students. The lack of scientific fitness knowledge and proper safety protocols has become a major barrier to college students engaging in evidence-based exercise programs^[3].

1.3 School and surrounding facilities are not perfect

At present, most college students in China engage in sports and fitness activities at venues primarily consisting of gymnasiums, gyms, and outdoor sports facilities. Gymnasiums, however, are limited by space and operating hours, making them underutilized. Moreover, some university gymnasiums are also used as classrooms and training grounds, further reducing their available time for free use. In recent years, with the suburbanization of universities, some institutions have relocated to suburban areas, leading to a relative lack of supporting facilities in these regions^[4]. Gyms are scarce or distant, or even nonexistent, directly increasing the cost of sports and fitness for students. Outdoor sports facilities are more suitable for various groups, but fully open outdoor venues also face numerous limitations. Extreme temperatures in summer and severe cold in winter can hinder fitness activities, a phenomenon particularly evident in northern Chinese cities. All these constraints may affect college students' participation in sports and fitness.

1.4 Publicity and guidance for national fitness are not in place

Currently, college students primarily learn about the concept of national fitness through three main channels: campus promotions, community outreach, and online platforms. However, these promotional efforts often suffer from limitations such as insufficient coverage, inadequate duration, and unengaging materials, resulting in suboptimal outcomes^[5]. Furthermore, the post-promotion guidance phase faces significant challenges. Due to various constraints, effective implementation of guidance measures remains difficult, causing the concept of national fitness and related initiatives to remain largely theoretical. Over time, this conceptual fading has negatively impacted students' participation in scientifically sound fitness practices.

1.5 The management level of fitness centers needs to be improved

The current obstacles hindering college students' participation in scientific fitness activities at gyms primarily stem from two issues. First, gym operating hours are often impractical. Due to management and safety concerns, many sports facilities remain closed or unavailable during evenings and weekends—a particularly prevalent issue in universities. These peak periods for student fitness participation are frequently constrained by limited venue availability, forcing some students to abandon exercise routines. Second, staff competence varies significantly. Unlike high-risk industries requiring mandatory professional certifications, the fitness sector lacks such national standards. This results in untrained personnel providing exercise guidance, potentially causing injuries. These concerns not only hinder students' commitment to scientific fitness but also indirectly impede nationwide fitness initiatives.

2. Promotion path of scientific fitness for college students

2.1 Continue to improve the national fitness promotion mechanism

We will intensify efforts to promote the concept of nationwide fitness among university students, encouraging their participation in scientific exercise programs. By collaborating closely with student organizations and academic units, we will tailor promotional materials to leverage their key characteristics: high educational attainment, ample free time, strong learning adaptability, frequent group activities, and concentrated activity scopes. Through diversified and engaging content with expanded outreach channels—combining online and offline platforms—we aim to create more impactful campaigns that resonate with college students and leave lasting impressions.

To strengthen the connection and engagement of student groups in scientific fitness, universities can organize sports meets, club activities, and fitness knowledge-sharing sessions based on available resources. These initiatives not only boost individual participation and enhance the appeal and enjoyment of activities, but also allow students to acquire practical fitness knowledge and methods through hands-on involvement. This creates a virtuous cycle that effectively promotes scientific fitness participation among college students.

2.2 Improve the implementation of laws and regulations on national fitness

On August 30, 2009, China's State Council enacted the "National Fitness Regulations," legally establishing the concept of nationwide fitness for the first time. This was followed by the "National Fitness Program," which further promoted fitness initiatives across society. Concurrently, provinces, municipalities, and autonomous regions introduced corresponding regulations. Schools could adopt similar approaches by incorporating fitness provisions into their rules, leveraging institutional frameworks to encourage student participation in scientific exercise programs. During implementation, promotional materials like banners, brochures, and digital screens could be used to help students understand their rights and the program's significance. For instance, a sports university incorporated morning exercise requirements into its regulations, mandating daily participation for all students. The Student Union monitored exercise quality and provided explanations of the National Fitness Regulations during morning sessions, effectively guiding students toward active engagement in scientific fitness practices.

2.3 Promote the organic combination of national fitness and commercial investment

Commercial sports organizations currently demonstrate strong enthusiasm for engaging university students, as their value propositions align closely with the principles of national fitness initiatives. These organizations could collaborate with commercial fitness providers to offer tailored incentives, such as compensation packages or preferential policies, considering the large student population with relatively limited purchasing power. Additionally, discounts on sports equipment could be implemented to reduce the cost of scientific fitness training, thereby motivating student participation. Furthermore, while promoting nationwide fitness programs, commercial sports organizations could organize commercial competitions and actively encourage student involvement. The primary objectives are to enhance engagement and participation levels, ultimately fostering a virtuous cycle of scientific fitness adoption among university students^[6].

2.4 Training professional fitness instructors

Currently, China has established corresponding national vocational qualification certificates and skill level certifications for various sports programs related to public fitness. These are supported by systematic and comprehensive theoretical and practical examination and training processes. By increasing the number of professional instructors and enhancing their technical expertise, these measures effectively guide the public in participating in fitness initiatives. Universities can organize sports vocational training programs, which not only cultivate reserve talents for public fitness but also enhance students' engagement with scientific fitness practices while gaining social recognition. For instance, a sports academy in northern China holds multiple annual national vocational qualification exams for fitness trainers and swimming coaches^[7]. These programs, widely popular among students, have significantly contributed to cultivating professional fitness instructors.

2.5 Improve the training mechanism for physical education teaching talents

To establish a systematic and sound mechanism for cultivating sports teaching talents, this plan is committed to building a full chain and closed-loop training system from selection to post employment development. Firstly, optimize the enrollment and selection mechanism at the source of talent, broaden the source of students, pay equal attention to cultural literacy while emphasizing physical skills, and explore the introduction of interviews and practical ability assessments to select students who truly love the education industry and have potential. On this basis, improving the curriculum and training system is key. It is necessary to construct a comprehensive curriculum that

integrates physical skills, teaching theory, health knowledge, and humanistic literacy, and strengthen the cultivation of modern teaching abilities such as modern educational technology and student physical health promotion. The precision of training can be improved through small class and layered teaching. At the same time, it is necessary to strengthen practical teaching and collaborative education, establish collaborative training alliances between universities, local education departments, and primary and secondary schools, extend internship periods, and fully implement the "dual mentor system" of joint guidance between universities and frontline teachers, to ensure that students can achieve immersive growth in stable practical bases. Finally, extending talent cultivation to the post service stage, establishing a new teacher tracking and guidance mechanism, constructing a hierarchical and classified continuing education and training system, and moderately linking learning outcomes with career development, ultimately forming a long-term support mechanism that connects pre service and post service and promotes teachers' continuous professional development, laying a solid talent foundation for the high-quality development of physical education and comprehensively cultivating fitness coach talents.

3.Conclusion

Efficiently engaging college students in scientific fitness programs significantly enhances national physical fitness standards while driving social and cultural progress. As a vital social force, university students play a pivotal role in advancing nationwide fitness initiatives. By strategically leveraging existing resources and capitalizing on their unique strengths, we can effectively accelerate the popularization and development of mass fitness across society.

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