



Sports Innovation and Multi-dimensional Value of Veteran College Students

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Abstract

Against the backdrop of the Healthy China 2030 Initiative and the drive for high-quality development in college physical education, the current college PE system is confronted with notable challenges: inadequate curriculum optimization, a dearth of diverse teaching programs, disorganized extracurricular physical exercise, and diminished educational functions of PE courses. Retired college student soldiers who have resumed their academic studies exhibit professional prowess in high-intensity physical training, scientific training management and sports safety protection, positioning them as high-quality reserve instructors for college PE reform. This study appoints them as peer leaders and on-site practical instructors to explore an innovative military-sports integration path in college PE. It constructs a comprehensive promotion mechanism integrating health screening, hierarchical physical training, full-process safety regulation and dual incentives of academic credits and quality development scores, and formulates a targeted "three-in-one" intervention program aligned with national physical fitness tests, military conscription and civil service physical examination criteria. Conducted on PE majors, the study collected 28 valid questionnaires for empirical analysis. The results reveal that this model effectively mitigates the supply-demand imbalance of PE teaching resources, markedly elevates students' physical fitness and test scores, and fosters their self-discipline, team spirit and national defense awareness, thus achieving integrated talent cultivation at individual, university and national levels. The findings offer a replicable practical paradigm for college PE reform, rational development of retired student resources, innovative campus national defense education and the construction of healthy campuses nationwide.

Keywords: Military-sports Integration, Demobilized College Students, College PE Reform, Healthy China Strategy

I. Introduction

1.1 Research Background: Synergistic Advancement of the Healthy China Initiative and Sports Power Construction

China has successively issued and implemented a series of top-level policy documents, including the Outline of the Healthy China 2030 Plan, the Opinions on Comprehensively Strengthening and Improving School Physical Education in the New Era, and the Opinions on Deepening the Integration of Sports and Education to Promote the Healthy Development of Adolescents. These documents explicitly place the improvement of adolescents' physical health in a fundamental and strategic position in national development, emphasizing that school physical education is a foundational project to fulfill the core task of fostering virtue through education and enhance students' comprehensive qualities. It plays an irreplaceable role in promoting core socialist values and cultivating socialist builders and successors with all-round development of morality, intelligence, physical fitness, aesthetics, and labor skills. At the national level, strong policy signals to strengthen school physical education, prioritize physical health, and improve the education system have been continuously released, pointing out a clear direction and providing solid guarantees for the reform and innovative development of college physical education[1].

With the accelerating modernization of national defense and the military, conscription work in the new era has put forward more comprehensive, rigorous, and specific requirements for the ideological and political qualities, scientific and cultural literacy, and physical fitness of young recruits. Standards for conscription physical examinations, physical fitness assessment items, and qualification criteria are constantly optimized and improved, serving as an important guide for young students to proactively enhance their physical fitness. In the

field of youth employment, mainstream development paths such as civil service recruitment, public institution employment, state-owned enterprise hiring, and grassroots service project selection all generally include strict and standardized physical examinations, physical fitness tests, and health screening links. Whether physical conditions meet the standards directly determines whether young students can successfully achieve their career development goals. The physical fitness of contemporary college students not only profoundly affects their academic completion, employment choices, and long-term development but also is directly related to the quality of national human resources, the level of national defense reserve force construction, and social sustainable development capacity. It is an important indicator of a country's comprehensive competitiveness and national development potential. Against this macro backdrop, universities, as the most concentrated, large-scale, and critical educational venue for young people, must take the initiative to shoulder the important mission of enhancing students' physical fitness, tempering their willpower, popularizing healthy lifestyles, and strengthening national defense awareness, and continuously promote the high-quality, connotative, and innovative development of sports work.

1.2 Practical Predicament of College Physical Education: Severe Imbalance Between Supply and Demand and Weakened Educational Functions

Driven by both national policy mandates and practical societal demands, college physical education in China has maintained a steady development momentum on the whole. However, in actual operation and practice, it has long been plagued by a series of structural, institutional and practical contradictions and problems, which have become key bottlenecks restricting the full exertion of the educational and nurturing functions of physical education[2].

First, there exists a striking imbalance between the supply of PE curriculum resources and the actual needs of students. At present, the vast majority of ordinary universities in China adopt an online, time-limited course selection system with a rush mechanism. The total volume of PE curriculum resources is limited, and quotas for popular programs are in short supply. A large number of students fail to enroll in their preferred courses due to objective factors such as conflicting class schedules, poor network conditions and varying operation speeds. Some even cannot take formal PE courses for consecutive semesters, being forced to give up the opportunity of systematic PE learning. This has created a prevalent practical dilemma where "selecting a PE course is difficult, and choosing a satisfactory one is even harder".

Second, PE classroom teaching has trended distinctly toward trivialization, entertainment and recreation, a phenomenon referred to as the "three malorientations". To minimize sports risks, reduce management pressure and simplify teaching procedures, some college PE courses prioritize low-intensity, highly interesting and easily organized activities in their content design, and deliberately downplay the training of core physical fitness including endurance, strength and speed. This results in insufficient training intensity in class, a fragmented training system and superficial training effects, causing college physical education to gradually deviate from its core objectives of enhancing physical fitness, forging willpower and cultivating moral character.

Third, extracurricular physical exercise is poorly organized, lacking sustainable, professional and standardized guidance. Current extracurricular sports activities in universities are mainly composed of club events, festival competitions and voluntary exercise, which generally suffer from poor sustainability and limited appeal. Students' independent exercise lacks scientific planning, professional guidance, peer supervision and safety guarantees, leading to a high risk of sports injuries and overall low exercise efficiency, and making it difficult to form a stable and effective health promotion mechanism.

Fourth, there is a sharp contrast between the immense pressure of physical health tests and the inadequate supply of effective guidance. Students' physical health test scores are directly linked to their graduation eligibility, merit evaluation, scholarship assessment and degree conferment, creating an extremely urgent demand for improving test performance among students. Nevertheless, campuses lack targeted, systematic and regular training guidance platforms tailored to students' weak test items, individual physical differences and diverse development needs. As a result, most students have to rely on self-exploration for training, which yields limited improvement effects and causes obvious anxiety.

The interweaving and superposition of these multiple practical problems have made it difficult for college physical education to fully fulfill its core functions of fostering virtue through education, strengthening physical health, educating people through sports and shaping the soul through sports in practice. Thus, there is an urgent need for innovative, low-cost, implementable and scalable reform approaches for college physical education development[3].

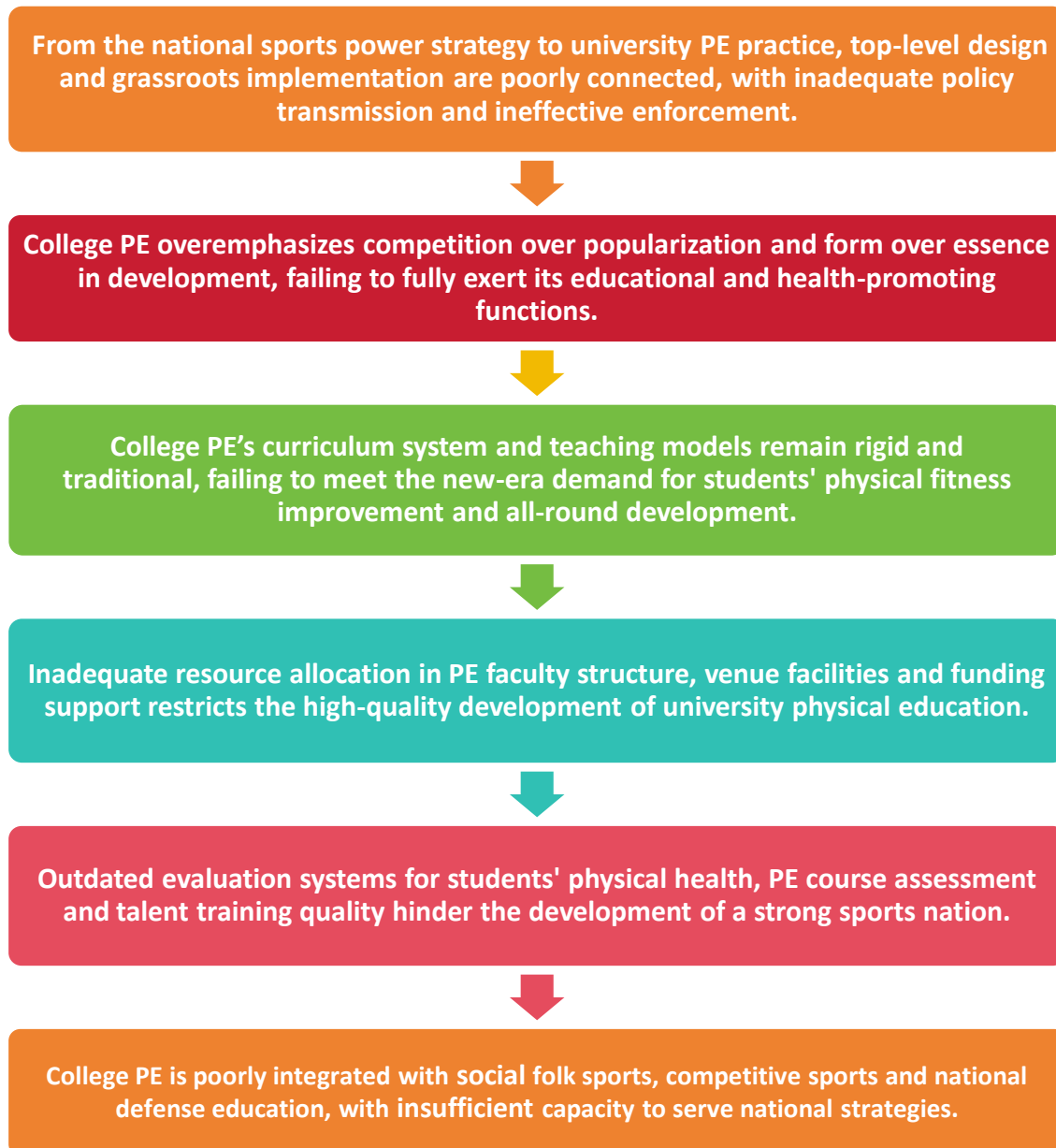


Figure 1 Factors and Analysis of College Physical Education Development

1.3 On-Campus Resources: Unique Sports Empowering Value of Demobilized College Student Soldiers

Driven by national policies that encourage college students to enlist in the military and support demobilized students in resuming their studies, the number of demobilized college student soldiers returning to campus has grown steadily in recent years, forming an outstanding group with excellent conduct and professional competence. Having received systematic military training, this group boasts three core strengths: first, a solid foundation in standardized physical training, with proficiency in scientific training organization, movement demonstration and key safety protection measures; second, a strong sense of responsibility, discipline and execution, enabling them to play an exemplary leading role; third, mastery of basic first-aid skills and on-site organization capabilities, qualifying them for roles such as PE teaching assistants and training organizers[4].

From the perspective of on-campus resource utilization, demobilized college student soldiers are high-quality "local and peer-based" practical PE faculty that can be developed directly without additional investment, serving as valuable endogenous resources to address the shortages of PE teachers and the lack of extracurricular exercise in universities. The university's Armed Forces Department can take the lead in integrating conscription publicity into daily PE teaching, regularly providing policy interpretation and consulting services, and systematically explaining the preferential policies for military service in further education and employment to inspire young students' intrinsic motivation to join the military with pen in hand.

In practice, universities can issue corresponding sports skill certificates or practical teaching qualifications to demobilized students based on their professional expertise in different military branches, and appoint them as teaching assistants for PE courses and extracurricular training instructors. In this way, the concepts, models and disciplinary conduct of military physical training can be institutionally embedded into daily PE teaching, extracurricular exercise and physical health improvement work. However, most universities currently only utilize this group's resources in limited areas such as freshmen military training and national defense education courses. How to adapt military training models to the university context, integrate them into the college sports ecosystem, and build a military-sports integrated model for sports development has become a key issue for the reform and innovation of college physical education in the new era.

1.4 Research Significance

1.4.1 Individual Development Enhancement

From the perspective of individual development, the innovative model of military empowerment and physical fitness foundation building constructed in this study provides college students with a stable, sustainable, professional and safe platform for extracurricular physical exercise, effectively offsetting the practical predicament caused by the shortage of formal PE curriculum resources. Through systematic, scientific and hierarchical training interventions, students' physical form, bodily functions and fitness are significantly improved: their BMI index is optimized, cardiopulmonary function is enhanced remarkably, core physical qualities such as strength, endurance, speed and flexibility are comprehensively raised, and the scores, pass rates and excellent rates of physical health tests are greatly increased, which effectively alleviates the academic and evaluation pressure from poor physical test performance.

Meanwhile, the training content of the project is precisely aligned with the physical examination and fitness assessment standards for key career paths including military enlistment, civil service recruitment, public institution employment and state-owned enterprise admission. It helps students make targeted preparations in advance, effectively improving the pass rate of physical examinations and fitness tests, and laying a solid physical foundation for their future career development and life planning. In the long-term training, students gradually develop healthy living habits such as regular exercise, scientific workout and a structured daily routine, and their self-discipline, pressure resilience, team spirit and perseverance are strengthened. This achieves the simultaneous improvement of physical and psychological quality, promotes the all-round physical[5].

1.4.2 Diversified Faculty for Universities

From the practical perspective of modern university governance and physical education reform, this project offers an innovative approach to bolstering the core of campus sports development. Amid the continuous expansion of university scale, demands grow for more PE faculty, diversified course selection supply and demand, enhanced in-class guidance, and better coordination of extracurricular exercise. By engaging demobilized college student soldiers as PE teaching assistants and building a flexible auxiliary faculty team, the project rapidly supplements frontline teaching and training guidance resources without a substantial increase in school funding or adjustment to existing teaching establishment, effectively alleviating resource shortages and boosting the quality and capacity of campus sports services.

This model also builds a practical platform with both economic support and career development opportunities for demobilized college student soldiers. The university provides reasonable class hour remuneration, turning the teaching assistant position into a stable carrier for work-study programs and employment internships. This not only meets the basic living needs of demobilized students but also offers them immersive career training. Assisting full-time teachers in classroom management, movement demonstration, training safety control and extracurricular exercise organization, demobilized student soldiers transform the disciplinary awareness, training organization capabilities and pressure resilience cultivated in the military into core professional competencies such as PE teaching, team management and communication, gradually completing the role transition from soldiers to students and then to workplace practitioners.

This peer teaching assistant model also enhances teaching affinity and execution. Sharing similar ages and campus experiences with ordinary students, demobilized student soldiers easily gain their trust and recognition. While imparting perseverance and safety awareness, they naturally integrate national defense education into PE teaching, fostering a self-disciplined and progressive campus cultural atmosphere. The outcomes of the project, including training norms, management systems and credit incentive schemes, can be embedded into the second classroom and comprehensive quality evaluation system, driving the transformation of campus sports from scattered recreational activities to systematic and scientific development, and providing an implementable and demonstrative practical sample for college PE teaching reform.

1.4.3 Support for Social Folk Sports

From the perspective of social development and public health, this project can effectively improve the overall health of young people by enhancing the physical health of college students, reduce sub-health issues, chronic pain, obesity, and declined cardiopulmonary function caused by sedentary lifestyles, lack of exercise, and irregular routines, lower the burden of public health and medical costs, and support the construction of a healthy society. Meanwhile, the project supplies high-quality reserve troops with solid physical foundation, strong willpower and high discipline awareness for the military, helping improve the quality and efficiency of conscription and strengthen the development of national defense reserve forces.

In the employment field, the project helps more college students meet the physical and fitness requirements of public posts, state-owned enterprises, and grassroots projects, improves youth employment competitiveness and success rate, and eases structural employment contradictions. By participating in sports guidance services, demobilized college student soldiers enhance their self-value, practical ability and social responsibility, which helps foster a positive social atmosphere of respecting soldiers, advocating sports, encouraging dedication and mutual progress, and promotes the overall improvement of social civilization and health literacy

The project deeply explores Chinese traditional folk sports culture, integrating martial arts, lion dance, dragon dance, dragon boat racing, Tai Chi and other folk sports with both fitness value and cultural connotation into extracurricular exercise and campus activities. Led by demobilized college student soldiers, folk sports associations are established, and traditional sports performances and competitions are carried out, enabling students to experience the charm of Chinese sports spirit and folk culture through immersive participation. This not only enriches campus sports culture but also injects youthful vitality into the living inheritance of traditional sports. Such folk sports activities can strengthen students' physical power, coordination and teamwork, as well as enhance cultural identity and national pride. They promote traditional sports culture from campus to communities and social life, support the construction of a national fitness culture ecosystem with Chinese characteristics, and provide a vivid carrier for social progress and cultural confidence.

1.4.4 National Strategy for Building a Strong and Healthy Nation

From a national strategic perspective, this study is closely integrated with major national strategies, including the Healthy China Initiative, building a strong sports nation, national defense modernization, and strengthening the nation through talent development. It organically combines campus physical education, youth health, national defense education, and talent training. Through a replicable practical model, top-level national policies are transformed into concrete actions that are implementable in universities, beneficial to students, and recognized by society. The implementation of the project helps comprehensively improve young people's physical fitness and comprehensive qualities, cultivate new-generation talents capable of shouldering the mission of national rejuvenation, and provide a solid health guarantee and high-quality talent support for the long-term development of the country.

The project explores an innovative path of military-sports coordination and on-campus resource activation, enriching the theoretical connotation and practical forms of school physical education reform in the new era. It provides universally valuable reform ideas for universities nationwide and promotes the high-quality development of college physical education. Strengthening youth physical fitness and national defense awareness is of great significance to enhancing national comprehensive competitiveness and safeguarding national security and development interests.

With the university's Armed Forces Department playing a leading role, conscription promotion is embedded in the whole process of national defense education and sports education. Through regular publicity activities, the contemporary value and development opportunities of military service are conveyed to young students. The Armed Forces Department provides face-to-face consultation for all students. Relying on full-time staff and demobilized student cadres, it answers key questions concerning enlistment policies, academic support, and career development, corrects misunderstandings, and stimulates students' internal motivation to join the military. This further consolidates national defense reserve forces and achieves the goal of diversified development of physical education.

1.5 Domestic Research Status

In China's academic circle, rich research findings have been formed on college students' physical health, college physical education reform, extracurricular exercise, national defense education, and the educational value of demobilized students. Many scholars have pointed out that improving college students' physical health, diversifying PE courses, and strengthening extracurricular exercise are important for the development of college physical education. Corresponding countermeasures are proposed, such as enhancing

faculty construction, perfecting the curriculum system, enriching extracurricular supply, and improving the incentive mechanism[6].

In the field of national defense education and military training, existing studies mainly focus on military training reform, the construction of national flag guards, conscription publicity, and national defense awareness cultivation. Some studies suggest giving play to the exemplary role of demobilized college student soldiers and establishing student self-training associations. Regarding demobilized college student soldiers, scholars generally recognize their unique value in ideological guidance, academic atmosphere construction, campus management and social practice. However, most studies focus on daily management and employment support.

Systematic and empirical research on taking demobilized college student soldiers as regular sports instructors, building a three-in-one training system integrating physical fitness tests, conscription and civil service examination, and forming a complete and replicable operation model still needs to be deepened and expanded. The theoretical construction and practical achievements in this field need to be further improved.

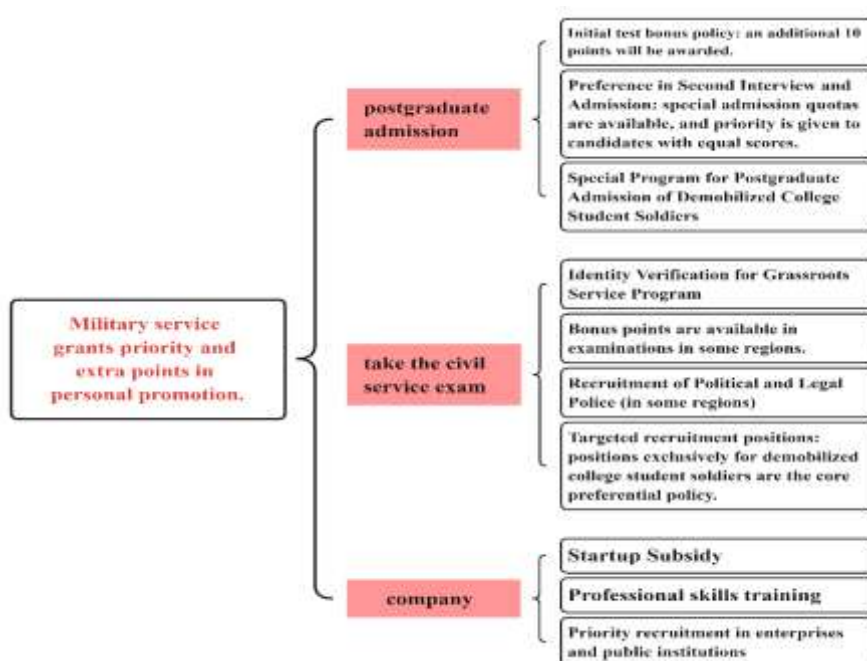


Figure 2 Priority and Bonus Points for Personal Promotion through Military Service

1.6 College Physical Education Planning

Investigation and analysis of the current situation of college physical education teaching, students' physical exercise behavior, physical health status and development needs.

Research on the establishment standards, selection process, organizational structure, responsibility division and management mechanism of the sports guidance team composed of demobilized college student soldiers.

Scientific transformation, adaptive adjustment and systematic training plan design of military physical fitness training mode for college students.

Construction and detailed content of a three-in-one comprehensive intervention system targeting physical fitness tests, military enlistment and civil service examination physical examinations.

Research on the whole-process health screening, training monitoring, sports injury prevention, emergency disposal and medical safety guarantee system.

Design and implementation of incentive mechanisms for extracurricular physical exercise point accumulation, credit exchange and comprehensive quality evaluation.

Empirical monitoring, data statistics, comparative analysis and multi-dimensional value evaluation of project implementation effects.

Research on project model summary, institutional solidification, promotion paths and long-term operation mechanism.

Construction of a scientific, safe, standardized, low-cost, easy-to-operate, replicable and promotable innovative model led by demobilized college student soldiers to improve campus physical education.

Formation of complete supporting achievements, including implementation plans, training manuals, management systems, safety specifications, credit incentive measures, investigation and empirical reports, etc.

Significantly improve the physical health indicators and physical fitness test scores of participating students, and effectively meet their practical needs such as improving physical fitness test scores, preparing for military enlistment and passing civil service examination physical examinations.

Provide practical samples and theoretical references for college physical education reform, military-sports integration, national defense education and healthy campus construction.

Form complete academic achievements that are original, low in repetition rate, in line with academic norms, and can be directly used for the conclusion, evaluation and publication of innovation and entrepreneurship projects for college students.

Relying on the management function of the university's People's Armed Forces Department, build a physical campus military enlistment service workstation, take demobilized college student soldiers as the core service force, establish a full-chain service mechanism of "policy publicity – consultation and answering – physical examination guidance – process follow-up", provide professional support for students such as military enlistment policy interpretation, enlistment condition evaluation, physical examination standard popularization and enlistment process guidance, implement the "last mile" of military enlistment policy, and improve the accuracy and coverage of military enlistment work.

1.7 Research Methods

Literature Review Method: Systematically sort out national policy documents, domestic and foreign academic papers, monographs, industry reports and practical cases to build the theoretical foundation of the research.

Questionnaire Survey Method: Design and distribute questionnaires on college students' sports needs and exercise status through the Wenjuanxing APP, conduct large-scale investigations, and carry out data statistics and analysis.

Expert Interview Method: Interview physical education teachers, teachers from the Armed Forces Department, school hospital physicians, university managers and representatives of demobilized students to obtain professional opinions.

Mathematical Statistics Method: Use statistical methods to process and analyze customized physical fitness indicators, physical test scores, behavioral data, etc.

Case Study Method: Take the complete implementation process of the project as a case to summarize experience, refine the model and form promotable achievements. Technical Software: "Sports Celebrity List", Demand Research and Theory Construction → Scheme Design → System and Security Guarantee → Publicity and Questionnaire Survey → Regular Training Implementation → Supporting Measures for Training Plan → Effect Evaluation and Data Analysis → Achievement Summary and Model Promotion → Conclusion Writing and Popularization & Application[7].

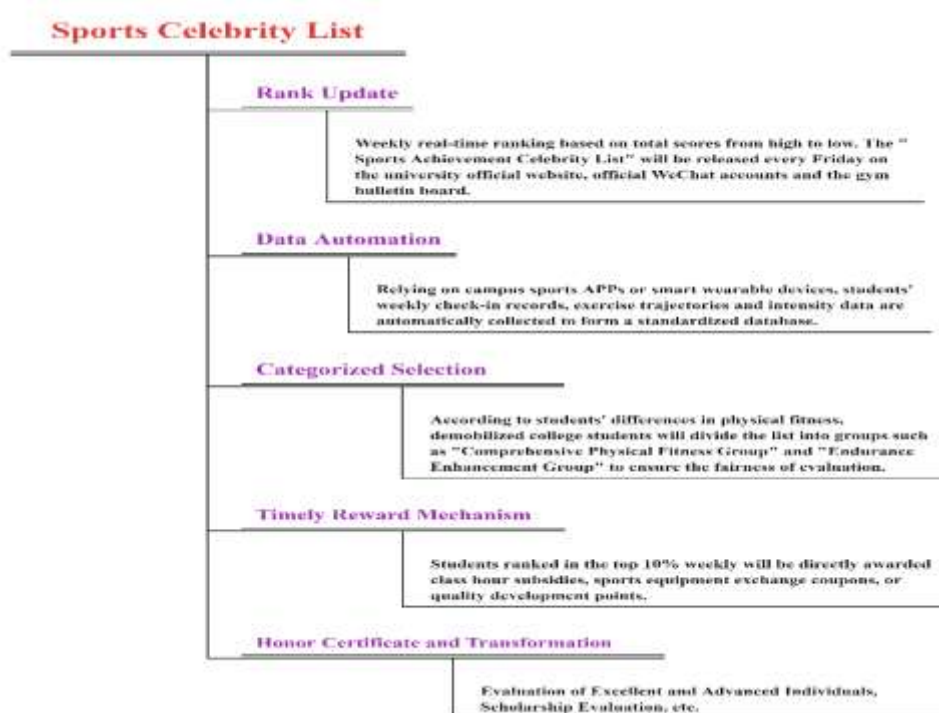


Figure 3 Sports Celebrity List

II. Core Conception and Theoretical Application

2.1 Preliminary Conception

This study takes demobilized college student soldiers as the core instructors and practical carriers, and constructs a complete conceptual framework with goal orientation, incentive mechanisms and supporting systems based on the logic of military-sports integrated education. Demobilized college student soldiers who return to campus after completing their mandatory military service possess solid physical fitness, training organization ability, strict discipline, safety awareness and first aid skills accumulated from military training. They serve as a key link between military training and college physical education, providing professional faculty support for the implementation of the program[8].

The concept of military-sports integration aims to break the boundary between military training and college physical education. It integrates scientific training concepts, organizational modes, discipline cultivation and will tempering into the whole process of physical education teaching, extracurricular exercise, health promotion and national defense education, forming a collaborative education approach of “strengthening physical foundation through sports, forging spirit through military culture, educating people through physical practice, and shaping morality through character development”. It not only highlights the standardization and restraint of military training, but also conforms to the fundamental goal of fostering virtue and morality in higher education.

On this basis, the study constructs a three-in-one training objective system, which aligns with the National Student Physical Health Standard, the physical examination and physical fitness assessment criteria for military enlistment, and the general physical examination standards for civil service recruitment. A comprehensive intervention program is established to meet three major practical demands: improving physical fitness, adapting to military enlistment, and passing physical examinations for civil service applications, making the training more targeted and practical.

To ensure the long-term implementation of training, the study establishes an incentive mechanism linking extracurricular sports activities with academic credits and quality development points. Students’ attendance, exercise duration, progress and performance in extracurricular activities are incorporated into course credits, comprehensive quality evaluation and cultural and sports credit systems. Institutionalized measures are adopted to enhance students’ internal motivation and sustainable participation in physical exercise, providing support for the achievement of various training objectives.

The theoretical framework of this study covers three dimensions: health promotion, social ecosystem and intrinsic motivation, which provide comprehensive support for military-sports integrated training. The national health promotion theory, with “prevention first and active intervention” as its core, advocates comprehensive improvement of individual health and reduction of sub-health risks through environmental optimization, behavioral intervention and scientific guidance. It lays a theoretical foundation for the design of exercise intervention programs, the construction of health monitoring systems and the cultivation of long-term exercise habits.

The ecosystem theory of social sports atmosphere breaks through the single perspective and constructs a multi-level support system involving individuals, campus, society and the country. It emphasizes the comprehensive empowerment of systems, resources, environment and culture on individual behaviors, providing a complete logical basis for the multi-dimensional value analysis and diversified promotion mechanisms of the study.

The self-determination theory of physical fitness and health focuses on the internal motivation mechanism, pointing out that individuals’ initiative to exercise is driven by a sense of autonomy, competence and belonging. Through scientific guidance, reasonable incentives and a positive team atmosphere, students’ deep-seated motivation for physical activity can be effectively stimulated. This theory well explains the effectiveness of credit incentives and peer-leading modes, injecting endogenous impetus into the long-term operation of the training system[9].

2.2 Peer Education Promotion

The core logic of peer education theory is that peer groups with similar backgrounds and outstanding abilities can demonstrate, supervise and positively guide each other in interaction. This logic has been fully practiced in the collaboration between demobilized college student soldiers and ordinary students.

Demobilized college student soldiers are of similar age to ordinary students and share highly overlapping campus life scenarios. They naturally have lower communication barriers and stronger emotional bonds. This peer attribute makes them more likely to gain trust and recognition when conveying training methods and regulating behaviors, leading to more sustainable guidance effects and significantly improving the cooperation and compliance of ordinary students[10].

In practice, relying on the physical foundation, training experience and discipline awareness accumulated from military service, demobilized college student soldiers have become “action models” among peers, providing professional guidance and company for ordinary students in daily physical exercise and sports

habit development. Ordinary students, in turn, support demobilized student soldiers in academic adaptation and campus affairs, forming a two-way empowering and mutually assisting pattern.

Such peer interaction is further consolidated through normalized carriers such as clubs and training groups. Demobilized college student soldiers take the lead in formulating scientific training plans, supervise exercise progress, and convey the style of tenacity and self-discipline. Ordinary students share learning resources, assist in theoretical sorting, and help demobilized student soldiers integrate into the academic environment more quickly.

This equal peer mutual-assistance mode not only eliminates the sense of distance in the traditional teacher-student relationship, but also allows the concept of military-sports integration to penetrate naturally in relaxed communication. It not only helps ordinary students improve physical fitness and develop long-term exercise habits, but also assists demobilized college student soldiers in completing a smooth transition from military to campus life, injecting vivid peer power into the long-term operation of the military-sports integrated education system.

III. Needs of College Physical Education Students

3.1 Survey Design and Implementation

This study takes the sports majors in our comprehensive university as the research objects. Stratified sampling, random sampling and voluntary participation are combined to cover students from freshman to senior years, so that the survey samples are professionally targeted, authentic and reliable. The survey is mainly carried out through online questionnaires, supplemented by offline interviews. The whole process of data collection is completed through unified distribution, centralized collection and cross-verification.

A total of 30 questionnaires were distributed, and 28 were recovered. After excluding 2 invalid questionnaires due to incomplete answers, logical contradictions or repeated submissions, 28 valid questionnaires were finally obtained, with an effective recovery rate of 93.33%.

Through mutual verification and supplementation of quantitative and qualitative data, this research comprehensively, objectively and accurately grasps the practical problems existing in current college physical education and the real sports needs of college students. It provides a solid practical basis for the subsequent design of training systems, team establishment, construction of safety mechanisms and improvement of incentive systems[11].

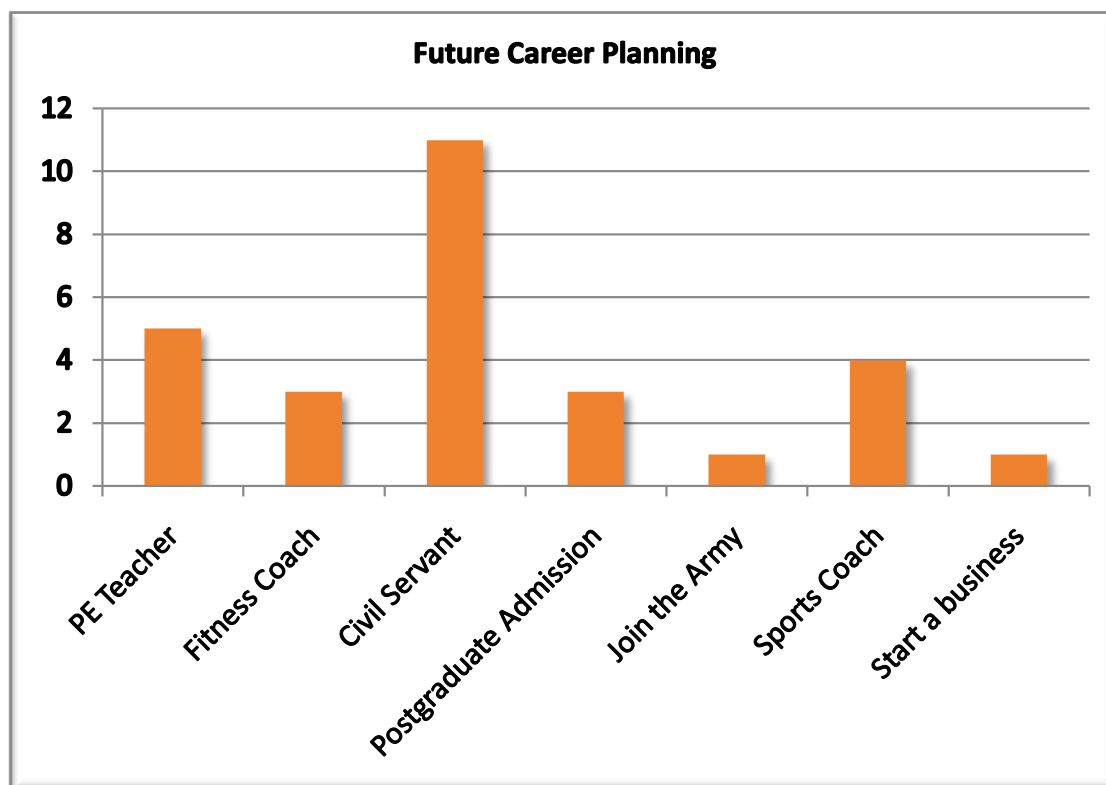


Figure 4Future Career Planning

3.2 Current Situation of College Physical Education

Based on the survey data and interviews, there are still prominent problems in the high-quality development of physical education in our university, including physical education teaching, extracurricular exercise, physical fitness improvement and health services.

Firstly, according to the survey on PE courses, most students find it difficult to select their ideal PE courses and have to give up systematic physical learning. Under the online course-selection mode, popular courses are fully occupied in a short time. Some students cannot enroll normally due to timetable conflicts, network conditions or timing problems, leading to the situation that “students cannot choose what they want to learn, and what they choose is not suitable”.

Secondly, the intensity of PE classes is relatively low. Data show that most students believe the current training intensity in PE classes is insufficient to effectively improve core physical qualities such as endurance, strength and speed. To reduce the risk of sports injuries and simplify teaching management, some courses focus on low-intensity, recreational and leisure contents, lacking systematic physical training design. As a result, classroom training is fragmented with superficial effects, which can hardly meet students’ needs for physical fitness improvement and higher scores in physical tests.

Thirdly, extracurricular physical exercise lacks professional guidance and a long-term mechanism. More than half of the students exercise independently less than once a week. Most students are in the state of “wanting to exercise but failing to persist, lacking methods and atmosphere”. Without scientific plans, movement correction, intensity control and peer supervision, students’ independent exercise is inefficient and may even cause sports injuries due to non-standard movements or unreasonable intensity, making it difficult to form stable, sustainable and healthy exercise habits.

Fourthly, students are under great pressure from physical fitness tests, while professional guidance is insufficient. The results of the National Student Physical Health Test are directly related to graduation, qualification for awards, scholarships and degree conferral. Therefore, students have an urgent need to improve their test scores. The survey shows that about 71% of students have obvious weak items, especially middle-and-long-distance running and strength events. However, the campus lacks a systematic, regular and small-class guidance platform for physical fitness tests, so students can only explore by themselves with limited improvement.

Fifthly, students’ development demands are highly concentrated, but the campus community service system cannot match them accurately. With the increasing popularity of military service, civil service examination, public institution recruitment, state-owned enterprise employment and grassroots programs, college students have stronger demands for qualified physique, qualified physical fitness, better posture and improved cardiopulmonary function[12].

3.3 Analysis of College Students’ Sports Needs

This study classifies and summarizes college students’ sports needs into six core aspects.

Stable, fixed and regular extracurricular sports training.

Most students hope to have training arrangements with fixed time, venue, team and instructor, replacing scattered, random and unplanned independent exercise, so as to improve persistence and regularity.

Targeted guidance for physical fitness test items.

Students mainly want professional guidance on middle- and long-distance running, upper-body strength, core strength and flexibility. They expect to improve their test scores quickly and steadily through scientific training.

Training in line with prescription physical examination and fitness assessment.

Students intending to join the army hope the training can meet the requirements of military recruitment, including BMI, eyesight, blood pressure and physical fitness items, achieving “one training, multiple qualifications”.

Improvement of physique, weight and cardiopulmonary function.

Students need to meet the physical examination standards for civil servants, public institutions and state-owned enterprises. They hope to control weight, optimize posture, strengthen cardiopulmonary function and enhance mental state through systematic training.

Institutional incentives such as credits, comprehensive evaluation and honors.

Students generally expect extracurricular sports to be recognized with second-class credits, comprehensive assessment points, certificates and priority in evaluation, so as to strengthen motivation and long-term participation[13].

Safe, scientific and step-by-step training support.

Students focus on sports safety, health screening, on-site supervision, first aid and reasonable intensity control. They hope to improve physical fitness safely and avoid injuries.

IV. Student Veterans’ Sports Guidance System

4.1 Team Responsibilities and Division of Labor

The team is mainly responsible for organizing and carrying out regular extracurricular physical training, providing professional guidance for physical fitness tests, military recruitment and physical examinations for civil servants.

Team members shall formulate scientific training plans, lead warm-up and relaxation exercises, standardize movement skills, control training intensity, and supervise training discipline.

They are also responsible for monitoring students' physical condition during exercise, promptly identifying potential safety risks, carrying out basic first aid when necessary, and ensuring the safety of all participants.

In addition, the team collects students' training feedback, optimizes training content and methods regularly, and promotes the formation of long-term exercise habits[14].

4.2 Club Organization Concept

The project adopts a flat, responsibility-based organizational structure to ensure efficient, safe and orderly training.

Head Coach: Undertaken by professional PE teachers and experienced veteran students. Responsible for overall training plan, content design, progress control, quality supervision and emergency response.

Group Coaches: Participants are divided into small groups. Each group is equipped with several veteran students as assistant coaches, in charge of daily training, demonstration, instruction, intensity control and on-site management.

Safety Officers: Specially responsible for pre-training health checks, physical condition monitoring, risk inspection, on-site supervision, initial injury treatment and emergency reporting.

Record Keepers: In charge of attendance statistics, training duration registration, points calculation, file archiving, physical test score comparison and material sorting.

Liaison Officers: Responsible for communication with participants, instructors, school hospital, PE department, and armed forces department; delivering notices, collecting feedback, coordinating venues and supplies.

Through clear division of labor, mutual cooperation and full-process supervision, a complete management system of "Plan – Implement – Supervise – Record – Feedback" is formed.

4.3 Pre- job Training and Qualification Certification

All team members must receive unified, systematic and comprehensive pre-job training before taking post. Only those who pass the assessment can conduct training, ensuring scientific, standardized and safe guidance.

The training includes:

Campus safety management regulations: safety requirements, risk prevention, emergency procedures, responsibility definition.

Exercise physiology and scientific training: physical characteristics of college students, recovery, period design, intensity control.

Basic first aid and injury prevention: dealing with strain, spasm, hypoglycemia, and using first-aid supplies.

Physical fitness test standards and methods: mastering test items, scoring, skills and error correction.

Key physical indicators for military and civil service recruitment: BMI, blood pressure, eyesight, posture.

Teaching organization and communication skills: command, group training, motivation, feedback.

Points and credit incentive system: attendance, training duration, progress points and credit exchange.

After training, theoretical, and practical assessments will be held. Certificates will be issued to those who pass all items for official duty[15].

4.4 Incentive and Support Mechanism

To stabilize the team, improve competence and stimulate motivation, the project establishes a sound daily management and incentive support system.

Daily management adopts sign-in, review and feedback systems: sign in before each training, brief review after training, regularly collect students' opinions and make timely improvements.

Incentives and supports include:

Issuing official honor certificates;

Recognizing social practice hours and second-class credits;

Giving priority in evaluation, scholarships and special support for veteran students;

Providing basic supplies such as training equipment, drinking water and medical materials;

Organizing regular exchanges and learning to improve coaching ability.

Combining institutional incentives with emotional care, a stable, professional and reliable peer sports guidance team is formed.

V. Integrated Sports Training

5.1 Training Design Principles

The project follows five basic principles: safety, science and effectiveness.

Safety First: All training focuses on injury prevention; no overload, high-risk or non-standard movements.

Scientific & Moderate: Intensity increases gradually based on students' fitness; no rushed or fatiguing training.

Individualized: Group training by gender, fitness level and weak areas; no one-size-fits-all.

Military-Sports Integration: Combine military discipline with campus and student characteristics.

Goal-Oriented: Serve three goals: physical test, military recruitment, civil service physical examination[16].

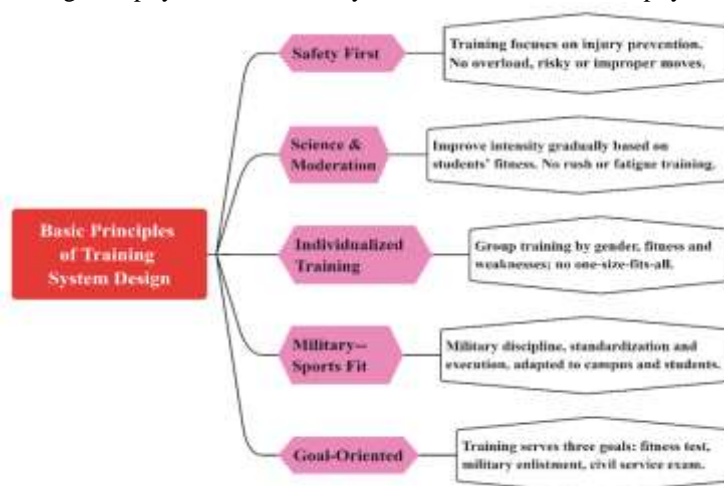


Figure 5 Basic Principles of Training System Design

5.2 Standardized Training

To ensure unified quality, standardization and safety, the project follows a fixed training process:

Pre-training health check: Safety officers check physical condition and exclude high-risk situations.

Warm-up: 10–15 minutes dynamic warm-up to reduce injury risk.

Main training: Endurance, strength, speed, flexibility and posture training in groups.

Relaxation & recovery: Static stretching and muscle relaxation.

Record & summary: Record attendance, points and training performance.

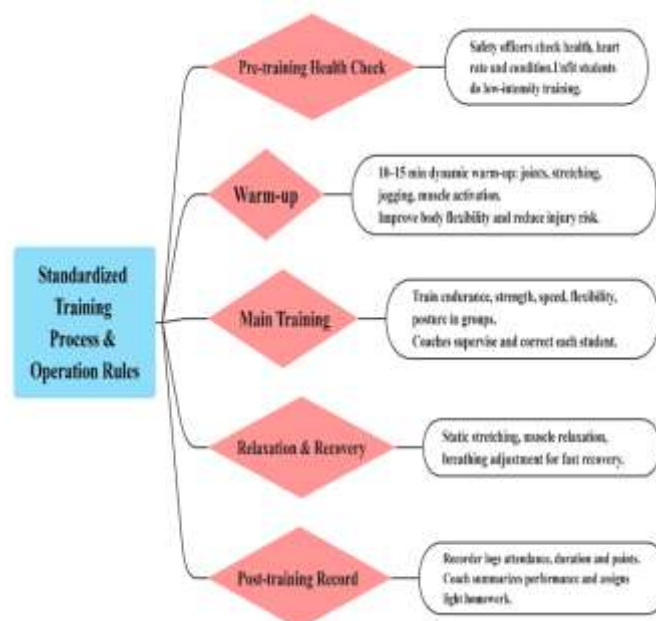


Figure 6 Standardized Training Process

5.3 Core Training

Modular training covering all fitness tests and health needs:

Cardiorespiratory Endurance: Distance running, interval training, breathing control.

Basic Strength: Upper, core, lower body; push-ups, planks, squats.

Speed & Agility: Sprinting, reaction drills, coordination practice.

Flexibility & Posture: Sit-and-reach, stretching, posture correction.

Team & Willpower: Drills, group tasks, teamwork training.

Health Guidance: Diet, sleep, vision, weight management.

5.4 Comprehensive Training

A three-in-one system: physical fitness test, military enlistment, civil service exam. One training, multiple certifications.

Fitness Test System: Targeted training for all events; track individual progress.

Military Enlistment System: BMI, blood pressure, fitness and physical exam preparation.

Civil Service Exam System: Weight, posture, health and fatigue improvement.



Figure 7 Core Training Content System Construction

VI. Safety Assurance & Credit Incentives

6.1 Safety Assurance

Safety is the bottom line. A full-course safety system covers before, during and after training.

Before training: Collect health records, past medical history and contraindications; check status; adjust or suspend in bad weather; inspect venues and equipment.

During training: Standard warm-up and cool-down; coach supervision; correct improper movements; control intensity; no training with illness or injury; on-site safety personnel.

After training: Advise hydration and rest; follow up minor discomfort; emergency contact with school hospital and counselors.

Emergency mechanism: Rapid response with school hospital, clear procedures and reporting system for standardized disposal.

6.2 Extracurricular PE Credit Incentive System

A point-credit incentive mechanism to boost participation and persistence.

Points system:

Attendance points for on-time participation

Duration points by training time

Progress points for improved fitness test scores

Bonus points for full attendance, teamwork and service

Credit redemption:

Points can be exchanged for quality development credits, comprehensive evaluation points, PE practice recognition, certificates and recommendation for awards.

It motivates students from "required to train" to "willing to train".

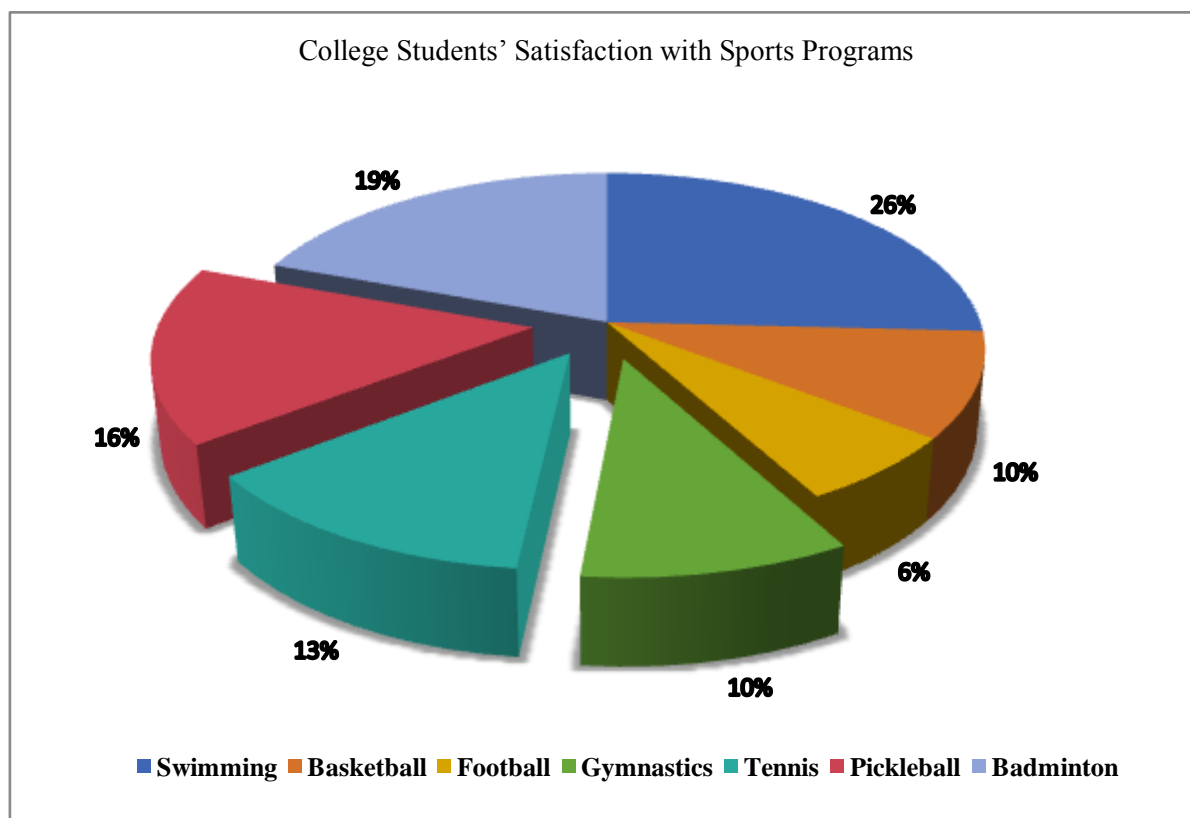


Figure 8 College Students' Preference for Sports Programs

6.3 Campus Sports Atmosphere Building

The project creates a positive, sunny and healthy sports atmosphere through diverse activities. Organize fun fitness contests, team relays, fitness test competitions and themed exercise days regularly. Award and publicize honors such as Progress Star, Self-discipline Star and Team Star. Establish class and group mutual support mechanisms to enhance belonging and cohesion. Promote scientific training, healthy living, self-discipline and self-improvement, fostering a campus culture of sports, health and excellence.

VII. Diversification & Practice Forecast

7.1 Personal Growth

The project improves physical fitness, willpower, living habits and development support. Better fitness and higher test scores. Stronger self-discipline, resilience, and teamwork. Healthy habits of exercise, sleep, and diet. Solid foundation for military service, exams, employment, and graduation.

7.2 University Governance Optimization

Strengthen PE teaching, extracurricular exercise, and fitness pass rate. Enrich second classroom and practical education. Innovate national defense education and improve school spirit. Form promotable teaching reform achievements. Enhance campus health governance.

7.3 Social Service Improvement

Improve youth health and national defense reserve forces. Cultivate high-quality talents for society. Promote healthy social atmosphere. Align with national strategies: Healthy China, Sports Power, National Defense Modernization. Turn policies into practical campus benefits for students.

7.4 Core Innovations

Faculty Innovation: Recruit veteran students as regular campus sports instructors.

Goal Innovation: Integrate fitness test, conscription, and civil service exam into one training mode.

Mechanism Innovation: Form a complete system of training, safety, incentive and atmosphere.

Value Innovation: Unify values of individual, university, society and nation.

Advantages: Low-cost, easy to implement, replicable, efficient, safe and popular.

Suitable for universities and colleges, with broad application in PE reform, national defense education, health campus and innovation education.

VIII. Statistical Results and Analysis

8.1 Research Design

This study adopts a cross-sectional quantitative survey design, focusing on four core dimensions: sports interest and preference, event attention, consumption intention, and career development. A questionnaire survey was conducted via Wenjuanxing (Questionnaire Star) for online distribution and collection, following a standardized procedure: questionnaire design → distribution and collection → data cleaning → descriptive statistics → result analysis.

Questionnaire Design

Demographic characteristics: Gender, used for sample description and group comparison.

Sports interest: Seven sports items (basketball, football, gymnastics, tennis, pickleball, swimming, badminton) to measure the degree of preference.

Behavior and attitude: Sports event attention, consumption input, motivation for major selection, and event cognition.

Development planning: Perceived value of further education and employment, and career orientation.

The questionnaire mainly consists of single-choice and multiple-choice questions with neutral wording, suitable for understanding by college students

Questionnaire Implementation

The questionnaire was mainly distributed online via Wenjuanxing, targeting college students majoring in sports-related fields or with sports experience. A total of 77 students were surveyed, and 35 questionnaires were recovered. After excluding invalid responses, 35 valid samples were obtained, with an effective response rate of 100%, which meets the requirements for descriptive statistical analysis of small samples.

Study Subjects and Sample Characteristics

Sample size: 35 valid samples.

Gender structure: 22 males (62.86%) and 13 females (37.14%), with males as the majority.

Group characteristics: Mainly college students with certain sports experience and cognition, holding clear attitudes toward sports, events and career development.

Representativeness: The sample covers various sports preferences, consumption levels and career intentions, and can reasonably reflect the interest and development demands of the target group.

8.2 Explanation of Questionnaire Design

Questionnaire Results and Content

As shown in Table 1 and Figure 11 regarding the gender distribution of respondents:

Gender structure: 22 males (62.86%) and 13 females (37.14%), with males as the dominant group.

Group characteristics: The sample is mainly college students with certain sports experience and sports-related cognition, who hold clear attitudes toward sports events, consumption and career development.

Overall representativeness: The sample covers different sports preferences, consumption levels and career intentions, which can well reflect the interests and development demands of the target group.



Figure 9 QR Code of Questionnaire

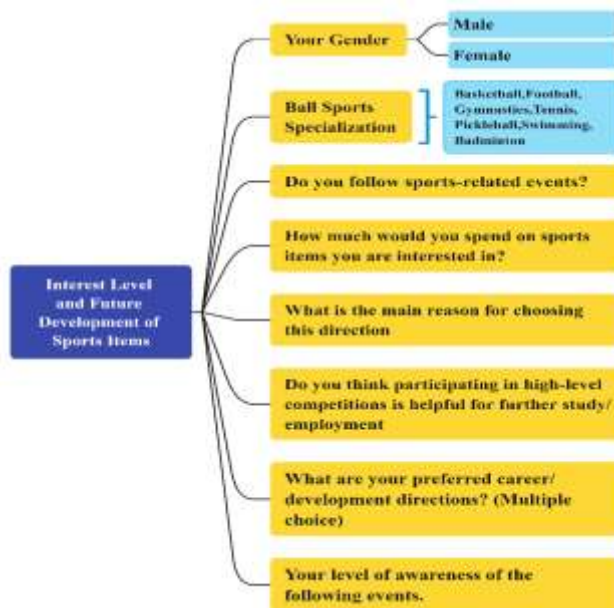


Figure 10 Questionnaire Content

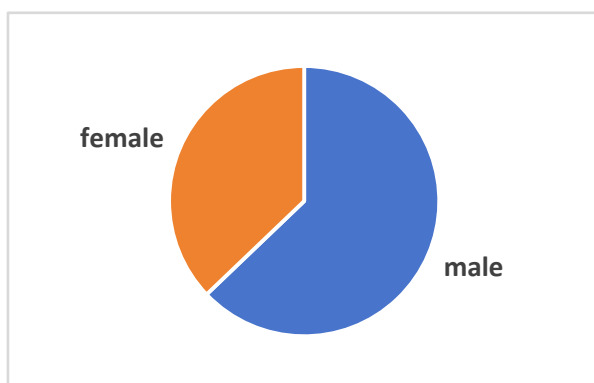


Figure 11 Gender Distribution of Respondents

Table 1 Gender of Respondents

Gender	Subtotal	Percentage
male	22	62.86%
female	13	37.14%

8.3 Sports Interest Preferences of College Students

Basketball: 57.14% of respondents expressed a preference, ranking highest among all sports with the strongest popular base.

Tennis: 54.29% liked tennis, while only 2.86% disliked it, showing an extremely high acceptance rate.

Swimming, gymnastics and pickleball: The proportion of participants who liked these sports ranged from 45.71% to 48.57%, indicating a moderately high level of recognition.

Football: Only 28.57% liked football, and 54.29% held a neutral attitude, reflecting a relatively low overall preference.

Badminton: 34.29% liked badminton, and 60% were neutral; despite its popularity, active preference was not high.

In summary, ball games are generally popular among college students, with basketball and tennis as the top choices, followed by football and badminton.

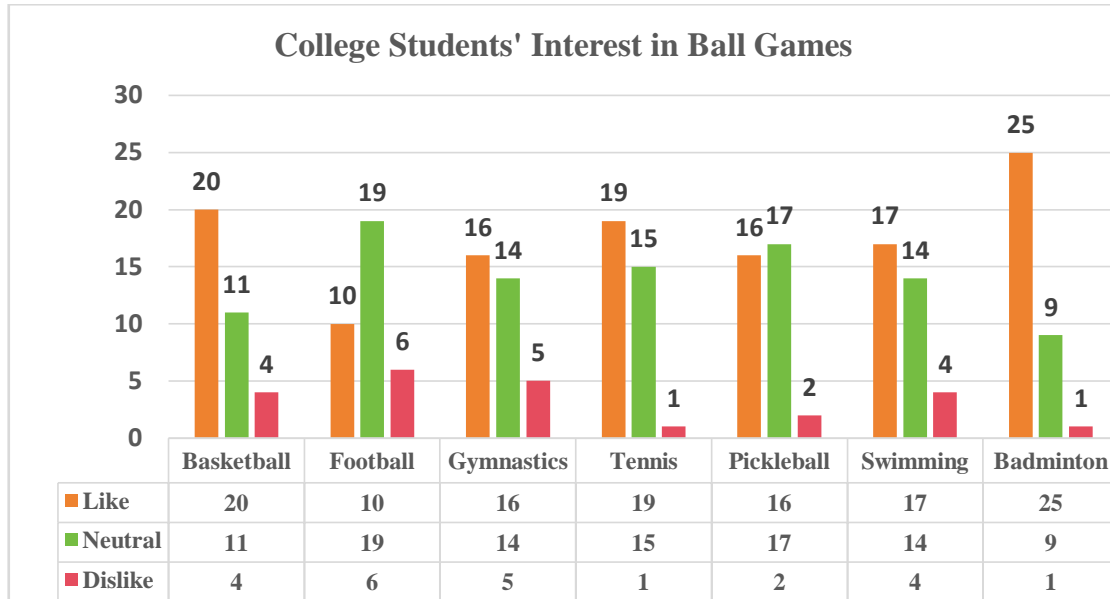


Figure 12 College Students' Interest in Ball Games

8.4 Sports Event Attention

According to Figure 13 and Figure 14, college students' enthusiasm for sports and their rational planning for future career development form a positive interaction. High attention to sports events reflects the infiltration of sports culture on campus. The career orientation that takes interest as the core while considering stability and prospects provides a clear direction for undergraduate talent training programs in the fields of physical education, event operation and related social services. These results confirm that ball games possess dual value in enriching campus life and shaping professional values.

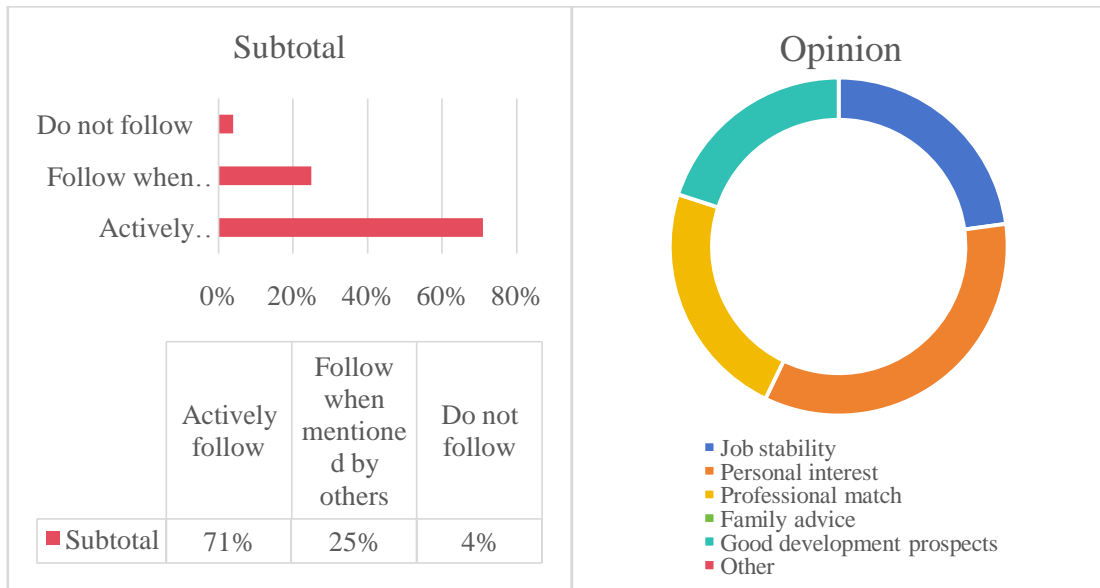


Figure 13 Students' Attention to Sports Events Figure 14 Motivation of Sports Major

8.5 Attention Paid by College Students to International Sports Events

As shown in Figure 15, regional sports events have the highest awareness. The Guangdong College Students' Individual Championships is the most recognized event, which is closely related to its regional proximity and relatively low participation threshold. Students can easily access and learn about such events through university teams and college competitions. National events rank second in awareness, with a moderate level among students, indicating that students have certain knowledge of national-level events but limited attention. Awareness of international events is low, reflecting that students have limited access to and attention on top international university sports competitions.

The results confirm the reality that becoming a high-level athlete is extremely difficult. From provincial

competitions to national and then international events, the competitive threshold increases step by step, with extremely high requirements for physical fitness, skills and resources. Most students find it hard to achieve development through the path of professional athletes.

Therefore, it is necessary to give full play to veterans' advantages in discipline, execution and physical fitness by establishing a Military- Sports Pioneer Group. The group will organize military- style physical training and ball sports competitions to systematically improve college students' physical quality and lay a foundation for physical reserve required for employment. This not only exerts veterans' strengths but also helps students gain advantages in the job market and form clear career goals.

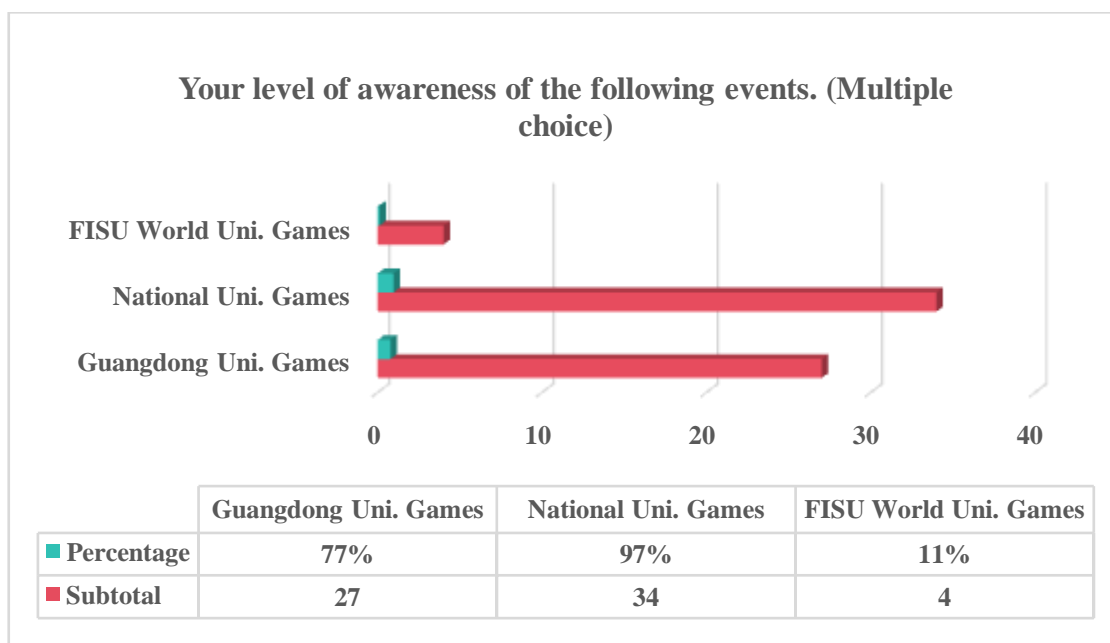


Figure 15 Students' Awareness of High-Level Sports Games

8.6 Preliminary Exploration of Future Careers Among College Students

Figure 16 reflects students' career preferences:

Primary and secondary school physical education teachers, civil servants, and public institution positions are the most popular choices, indicating that stable jobs in the public sector remain the top priority for sports majors.

Joining the military and pursuing postgraduate studies also account for a considerable proportion, reflecting students' willingness to extend their military experience into sports-related careers, as well as their awareness of improving academic qualifications and broadening development paths.

Relatively few students choose fitness coach, sports training instructor, or entrepreneurship, suggesting that most students tend to pursue stability, while attention to market-oriented and entrepreneurial fields needs to be improved.

The data show that veteran college students can be used to promote the integrated training of military and sports careers. We should give full play to veterans' advantages in discipline and execution, and take these qualities as their core competitiveness in sports teacher training.

It is suggested that universities and educational authorities cooperate to targetedly train veteran college students as key physical education teachers in primary and secondary schools, so that they can give play to their strengths in military sports and physical training. At the same time, veterans can be set as examples to encourage more students to join the military and enhance their enthusiasm for enlistment.

Given the high demand for postgraduate studies, the cultivation of students' research competence should be strengthened. Veteran college students should be encouraged to conduct academic research on military-sports integration and sports rehabilitation for veterans, combining their military experience with their sports major to enhance their competitiveness in postgraduate admission through differentiated advantages.

In addition, a military-integrated sports training model can be adopted to help students strengthen physical fitness and further improve the pass rate of postgraduate physical examinations.

While consolidating employment advantages in the public sector, colleges can offer courses on sports industry entrepreneurship and emerging sports professions, guide students to balance stability and development, and build a multi-dimensional career development system.

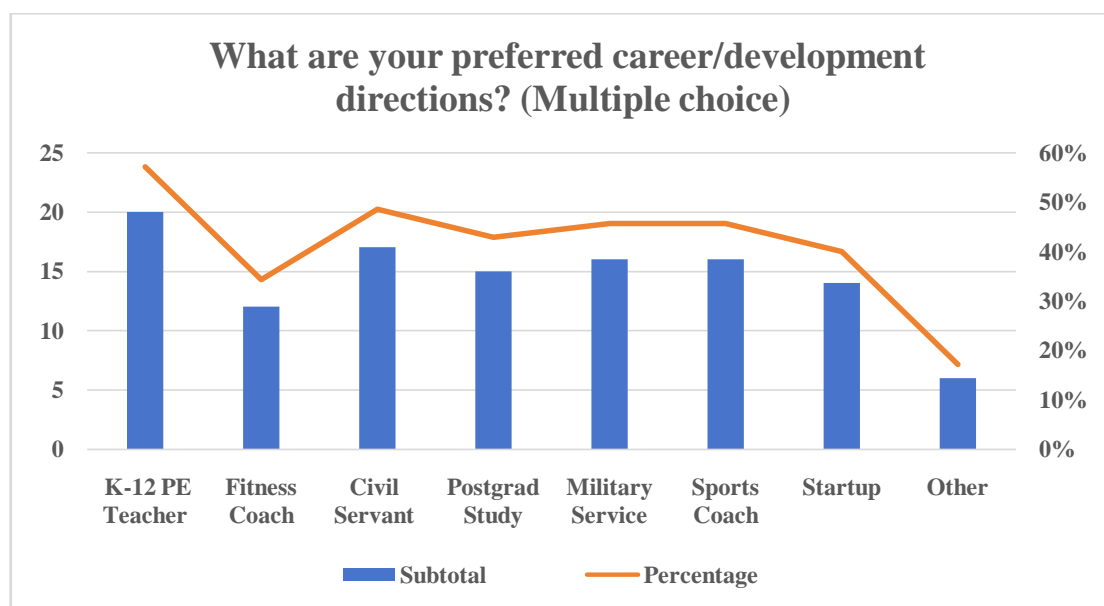


Figure 16 Career Exploration of Sports Majors

IX. Conclusion and Prospect

9.1 Conclusion

This study shows that the military-integrated sports improvement model led by veteran college students is a scientific, safe, efficient and feasible way to improve college students' physical health and meet their diverse development needs. It can significantly enhance physical fitness, improve fitness test scores, develop exercise habits, and strengthen willpower and national defense awareness.

9.2 Prospect

Introduce AI health monitoring for personalized exercise programs. Build school-local cooperation with community sports and national defense bases. Improve curriculum and credit system into formal teaching.

Expand coverage to form a replicable campus health promotion model.

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