

School Physical Education Promotes Students' Mental Health Education: An Exploratory Study*

XIANG Liangping, ZHONG Xiang, LI Yonglin

Sichuan University of Science and Chemical Technology, Zigong, China

This study explores how school physical education promotes students' mental health education, focusing on analyzing the impact of sports activities on improving students' self-esteem, reducing psychological stress, improving social skills and other aspects of mental health. By analyzing the connotation and function of school sports, supported by the three theories of self-determination, stress reduction, and social support, the relationship between the adjustment effect of school sports on students' psychology, the cultivation of psychological resilience in sports competitions, and the impact of sports on social activities was analyzed. This proves that school physical education has significant advantages in students' self-esteem, stress resistance, and social skills. It is recommended that educational decision makers and school administrators focus on curriculum innovation and differentiated customization, strengthen participation and self-efficacy cultivation, sports skills improvement and psychological construction, team cohesion and social network construction, cross-border integration and system integration, increase investment in school sports facilities and procedures, design more diverse and highly participatory sports activities, and more effectively promote students' mental health growth.

Keywords: physical education, mental health, analytical research

Introduce

In the rapidly changing modern society, students are facing unprecedented challenges in mental health. Factors such as academic pressure, the influence of social media, family expectations, and social competition may have a negative impact on students' mental health. Mental health problems not only affect students' learning efficiency and quality of life, but may also have a lasting impact on their long-term physical and mental development. Therefore, finding effective ways to support and promote students' mental health education has

***Project:** 2022 National Key Research Base of Philosophy and Social Sciences on Physical Health and Sports Research Theme, Sichuan Province: "Study on the Promotion of School Sports to Promote the 'Double Reduction' of Middle School Students' Mental Health, Exploratory Research on the Penetration of Mental Health Education Into Middle School Sports", Project Number: GT-022022217.

***Project:** 2021 National Physical Health and Sports Research Project of the Key Research Base of Philosophy and Social Sciences in Zigong City, Sichuan Province: "Analytical Research on the Penetration of Mental Health Education Into Middle School Physical Education", Project Number: GT-03202103.

XIANG Liangping, associate professor, School of Physical Education, Sichuan University of Science and Chemical Technology, Zigong, China.

ZHONG Xiang, Master of Education, School of Physical Education, Sichuan University of Science and Chemical Technology, Zigong, China.

LI Yonglin, postgraduate student, School of Physical Education, Sichuan University of Science and Chemical Technology, Zigong, China.

become an urgent task in the current education field. As an important part of school education, physical education not only has a direct effect on promoting students' physical health, but also has great potential in cultivating students' psychological quality and improving their mental health level. Physical activities can help improve students' self-esteem, self-efficacy, and social skills by enhancing physical strength, promoting social interaction, and providing channels for stress release, thereby promoting students' overall mental health. However, despite the potential positive correlation between physical education and mental health, how to effectively promote students' mental health education in actual operation still needs in-depth research. In particular, when designing physical education courses and activities, how to comprehensively consider students' mental health needs and how to evaluate the specific impact of physical education on mental health are issues that urgently need to be addressed in current research.

This study explored how school physical education can promote students' mental health education, analyzed the impact of physical activities on improving students' self-esteem, social skills, stress resistance, and other mental health indicators, and proposed the mechanism and implementation strategy of physical education in promoting mental health.

Theoretical Framework

This study explores how school physical education can promote students' mental health based on three main theoretical frameworks: self-determination theory (SDT), stress reduction theory, and social support theory. These theories provide different perspectives for understanding the positive impact of physical education on students' mental health.

The Connotation and Function of Physical Education in Schools

As an indispensable part of the education system, school physical education has profound connotations and diverse functions. It is a series of educational practice activities carefully designed and implemented for students in a school environment in a systematic and organized way, with the core goals of strengthening fitness, cultivating emotions, harmonizing will, and spreading sports knowledge and skills. School physical education is not limited to simple physical exercise, but is also deeply integrated into the concept of education, emphasizing the cultivation of students' sense of rules, cooperation, and fairness through various sports projects, activities, and competitions such as physical education courses, extracurricular sports, and team competitions. The concepts of competition and respect for others enable students to acquire basic life skills and values through active participation.

The functions of school physical education are reflected in multiple aspects: First, through scientific and reasonable exercise methods, it effectively promotes the overall improvement of students' physical fitness and ensures the healthy growth of young people; second, sports activities have a unique psychological adjustment effect, which can effectively relieve learning pressure and cultivate students' psychological resilience and emotional regulation ability; in addition, physical exercise is also conducive to intellectual development, by activating brain potential, improving students' cognition, creativity, and problem-solving ability; in addition, its social adaptability function cannot be ignored, and sports practice processes such as teamwork and fair competition help to cultivate students' communication skills and teamwork spirit, so that they can better adapt to social life; finally, school sports also undertake the tasks of aesthetic education and moral education, through the influence of sports aesthetics and competitive ethics, and cultivate students' aesthetic perception, pursuit, and

practice of moral qualities such as honesty, trustworthiness, and respect for others. Therefore, school physical education plays a key role in promoting the physical and mental health development of students, improving their overall quality, and forming lifelong exercise habits. It is an important cornerstone for the comprehensive development of talents in the new era.

Basic Theories of Mental Health Education

Self-determination theory emphasizes three basic psychological needs: autonomy, a sense of purpose, and a sense of belonging. In the context of physical activity, students can meet these needs by participating in decision-making (autonomy), improving their motor skills (sense of competence), and building positive relationships with their peers (sense of belonging). When these psychological needs are met, students' intrinsic motivation is enhanced, which promotes their psychological health and overall well-being. Therefore, physical education should aim to promote students' autonomy, sense of competence, and sense of belonging to promote the development of psychological health.

The stress reduction theory holds that physical activity can serve as an effective stress reduction mechanism to help individuals reduce psychological stress and anxiety. By participating in sports activities, students can shift their focus from stressors to the exercise itself, thereby achieving the effect of relieving stress. In addition, physical activity can also promote the release of positive chemicals such as endorphins in the body, which helps improve mood and enhance psychological resilience. Therefore, physical education plays an important role in improving students' ability to resist stress and regulate emotions.

Social support theory emphasizes the importance of social networks in providing emotional support, information support, and practical help. In the context of physical education, students build peer relationships through teamwork and collective activities, which not only helps them gain emotional support but also promotes the development of social skills. In addition, team spirit and collective achievement can enhance students' sense of social belonging and have a positive impact on their self-esteem and social competence. Therefore, physical education provides an important platform for promoting students' mental health through social interaction and teamwork.

In Conclusion

The Psychological Regulation Effect of Physical Exercise: An Exploration of Emotion Regulation Under the Physiological-psychological Interaction Mechanism

Sports play a key role in the field of school education, especially in improving students' mental health. The physical education curriculum is not limited to physical training and skill teaching, but also embeds a variety of psychological education elements such as emotional regulation, personality shaping, social skills enlightenment, and psychological resilience cultivation to achieve a holistic education for students. In terms of emotional regulation, physical education uses a variety of activities and competition scenarios to allow students to experience the various emotional ups and downs brought about by success and failure, happiness and challenges in practical experience. During exercise, endorphins, dopamine, and other neurotransmitters naturally secreted in the body help relieve stress, promote mood, and play a positive role in reducing psychological stress and preventing anxiety and depression. In this process, teachers guide students to face the results, understand how to remain tenacious in the face of setbacks, and remain humble in the face of victory, so that they can learn effective emotional management and self-adaptation strategies in practice.

In terms of self-awareness and self-esteem building, physical exercise requires students to continuously improve their personal skills and demonstrate physical fitness, so that they can gradually build strong body self-esteem and self-efficacy in the process of challenging themselves and constantly breaking through their limits. Physical education helps students develop positive self-cognition, enhance self-esteem and self-confidence by teaching sports skills and shaping good posture, and effectively alleviates low self-esteem or dissatisfaction caused by body image.

In terms of cognitive and will quality education, technical sports learning, tactical and strategic planning, and physical education promote the improvement of students' cognitive abilities, such as observation, memory, imagination, and decision-making. The spirit of perseverance and courage in the process of physical exercise is the best platform for cultivating and honing students' will qualities such as consciousness, decisiveness, and perseverance. Through physical education, students can truly understand the wisdom of life in which students persevere in the process of defeating themselves and overcoming difficulties, thereby gaining comprehensive and profound experience and growth at the psychological level.

Cultivation of Psychological Resilience in Sports Competition Situations: Frustration Education and Psychological Construction of Competitiveness

In the diversified practice of physical education, sports competition situations have been proven to be a powerful catalyst that can effectively promote the cultivation of students' psychological resilience and the construction of competitive psychology. In this context, sports competition, as a social activity full of challenges and uncertainties, has become a living classroom for students to face setbacks and experience success and failure, profoundly demonstrating the practicality and humanistic care of education.

Every game in a sports competition environment, whether it is a technical competition or a strategic confrontation, is a severe test of students' psychological resilience. In the face of failure and setbacks, physical education should guide students to understand the nature of setbacks and regard them as an inevitable and valuable part of their growth process. Through reflection, learning, and adjusting strategies, students can be encouraged to improve their resilience and enhance their ability to withstand the pressure of adversity. At the same time, the alternation of success and failure in sports competitions provides students with a valuable opportunity to shape a competitive mentality in a dynamic competitive environment. Teachers need to teach students to establish a correct view of winning and losing. They must dare to compete and be proactive, but they must also be able to remain calm in the face of failure and respect their opponents. Only in this way can they develop a healthy competitive mentality that is neither arrogant when winning nor discouraged when losing, and that is both independent and tenacious and able to work together.

From the perspective of educational psychology, the cultivation of psychological resilience and the construction of competitive psychology in sports competition situations are in line with Atkinson's achievement motivation theory, which emphasizes the psychological adaptation and adaptability of individuals in the face of success and failure pressure. At the same time, it also echoes the concept of positive psychology, which emphasizes the development of personal resilience and optimism through positive responses to setbacks. Therefore, in physical education teaching, making full use of the situational educational value of sports competitions can not only exercise students' physical skills, but also deepen students' psychological literacy, so that they can show resilience no matter what situation they are in in their future social life. It lays a solid psychological foundation for psychological quality and healthy competitive consciousness.

An Ecological Perspective on Sports Social Activities: A Psychodynamic Analysis of Interpersonal Relationship Construction and Group Identity

As an important social interaction context, physical education, especially in the implementation of sports social activities, provides us with a unique ecological perspective to understand and analyze the psychodynamic process of establishing interpersonal relationships and group identity. From this perspective, sports social activities are no longer just seen as a single physical exercise, but have become an important link in the interaction, emotional connection, and value sharing between students.

Since sports social activities are full of vitality and fun, they create many opportunities for face-to-face, real-time interaction for students. This kind of communication and interaction in real situations helps them build mutual trust and enhance understanding, thereby shaping and improving interpersonal relationships in practice. In team sports, the division of labor, cooperation, mutual support, and conflict resolution among members are undoubtedly a deep socialization exercise that helps students understand and accept different role positioning and responsibility allocation, thereby showing higher tolerance and adaptability in building interpersonal relationships.

Physical social activities also have profound significance in the psychodynamic sense of group identity. By participating in collective sports activities, students have the opportunity to experience common goals, sustained emotional resonance, and a sense of collective honor. These shared experiences and emotional connections can effectively strengthen their sense of belonging to the group. On the competitive stage, symbols such as uniform team uniforms, slogans, and rituals all invisibly create a sense of collective identity, allowing students to deepen their identification and love for the group in the process of sharing sports culture. Sports social activities in physical education teaching, from an ecological perspective, effectively promote students' development in interpersonal relationship construction and group identity psychological dynamics by providing rich interactive situations. This process not only promotes personal psychological growth, but also lays a solid foundation for their future social interaction and teamwork, reflecting the important value of sports in comprehensive education and improving students' comprehensive quality. Through theoretical analysis and empirical research, this study deeply explores the role and mechanism of school physical education in promoting students' mental health development. The results support the application of self-determination theory, stress reduction theory, and social support theory in physical education, indicating that sports activities have a significant positive effect on improving students' self-esteem, reducing psychological pressure, and improving social skills.

Strategic Recommendations and Implementation Paths

Curriculum Innovation and Differentiated Customization

In the process of promoting students' mental health education, school sports play a vital role with its unique practical and experience advantages. Based on the principle of students' multiple intelligences and interest orientation, school sports urgently need to establish a diversified and inclusive curriculum system design strategy with personalized needs as the core, so as to fully stimulate students' enthusiasm for active participation in physical exercise. Taking into full account the differences in students' multiple intelligences and interests means breaking the traditional one-size-fits-all model in the design of physical education courses and introducing more diverse sports and activities, such as artistic gymnastics, orienteering, outdoor adventures, team games, etc., to meet the physical, emotional, cognitive, social interests and development needs of different students. Such

curriculum design can help stimulate students' enthusiasm for physical exercise, making them more willing to invest time and energy in physical and mental exercise, thereby creating good conditions for mental health.

The school adheres to the individual demand orientation and implements flexible and diverse modular teaching in the arrangement of physical education courses, allowing students to choose appropriate physical education courses according to their preferences and majors, and even customize personalized exercise plans within a certain range. This approach not only improves students' autonomy and sense of participation, but also enables them to succeed in the sports they like and are good at, further improving their self-affirmation and self-confidence, which is an important part of mental health education. Through diversified course content and forms, school sports create an exercise environment for students that suits the personality characteristics and psychological needs of each student. For example, non-competitive sports that focus on personal experience, such as yoga and Tai Chi, are provided for introverted students to help them relax and improve their emotional management ability; for students who like challenges and competitions, team competitions such as basketball and football can be organized to cultivate their teamwork ability and stress resistance.

The physical education curriculum system design strategy based on students' multiple intelligences and interests aims to create a sports environment that can meet individual needs and inspire students to actively participate, thereby providing comprehensive, systematic, and personalized support for the mental health of each student and effectively promoting the overall improvement of their psychological quality. Through this in-depth curriculum reform and implementation strategy, school sports will play a more important and lasting role in promoting students' mental health education.

Empowerment, Participation, and Self-efficacy

In the process of promoting students' mental health education in school sports, the role of educators should not be limited to technical guidance and activity organization, but should deeply implement the people-oriented education concept, attach great importance to, and actively promote the development of students' subjectivity. Educators need to adopt innovative implementation strategies in sports practice, focus on advocating a sports activity model of autonomous choice and self-planning, fully mobilize students' subjective initiative through the method of empowerment education, guide students to actively explore and participate in sports activities, and form the habit and ability of self-determination.

Educators should create a relaxed and free physical education environment, and encourage students to independently choose appropriate sports activities according to their interests, hobbies, physical conditions, and psychological needs, so as to create a deeper sense of participation and satisfaction in the process of participation. At the same time, educators also need to guide students to learn self-planning, set reasonable exercise goals, develop personalized exercise plans, and continuously improve their self-management ability through goal-oriented practice. The core of the empowering education method is to respect and trust students' potential and ability. By giving students more decision-making power and dominance, educators can let them experience the joy of success and the joy of challenge in sports activities, thereby significantly improving their abilities. Self-efficacy is the confidence and belief in a person's ability to successfully complete a specific task. With the improvement of self-efficacy, students' enthusiasm and perseverance in sports activities will also be greatly improved, which is undoubtedly an extremely important driving force for students' mental health education.

By actively promoting the development of students' subjectivity in sports practice, advocating and implementing independent choice and independent planning, and using empowering education methods to

cultivate students' autonomy and participation awareness, we can not only significantly improve students' self-efficacy and enthusiasm for sports activities, but also cleverly lay a solid foundation for deepening students' mental health education and effectively promote students' all-round healthy psychological development.

Improve Sports Skills and Cultivate Positive Psychology

In the practice of physical education, educators shoulder the important mission of guiding and motivating students. They should adopt systematic skill training methods, carefully guide students to gradually improve various sports skills, and ensure that they make substantial progress at all stages of skill learning. At the same time, educators should be good at using positive motivational strategies, timely recognize and encourage every step of students' growth, and strive to enhance their intrinsic motivation. Not only that, they also need to establish and implement an effective constructive feedback mechanism, accurately evaluate students' sports performance, and put forward specific suggestions for improvement, so that students can clearly understand their strengths and weaknesses and clarify their own development direction.

Through the above comprehensive educational methods, students can continuously accumulate confidence in their sports performance and form a positive self-cognition, thereby improving their psychological resilience, self-esteem, and self-confidence in the process of skill improvement. Physical education not only improves students' athletic ability, but also promotes the development of students' psychological quality to a certain extent, laying a solid psychological foundation for students to cope with various challenges in life.

Team Cohesion and Social Network Construction

In educational practice and research, we have deeply explored the multiple benefits brought by team sports and collective activities, and on this basis, scientifically constructed a sports activity system with high interactivity and high collaboration requirements. This system fully draws on the inherent mechanisms of team sports such as basketball, football, and volleyball, and aims to effectively cultivate and enhance students' team spirit and practical cooperation ability through systematic activity design and implementation.

Research shows that collective sports activities, as a social platform rich in symbolic interactions and shared cognitive situations, can effectively promote the formation of high-quality interpersonal networks among students based on mutual assistance, mutual trust, and shared achievements. This network structure not only helps students improve their collaborative efficiency in the field of sports, but is also crucial for them to develop stable and positive interpersonal communication patterns and adapt to complex social environments in a wider social environment. Through such challenging and dynamic team sports activities, students can gradually learn effective team communication strategies, improve their emotional intelligence and ability to cope with stress through personal experience, and thus achieve an overall improvement in mental health and social adaptability. This is not only an important part of quality education, but also a forward-looking and pragmatic exploration of the comprehensive quality training of future social citizens.

Cross-Border Integration and System Integration

Under the current development trend of educational theory and practice, we are committed to promoting the deep integration and innovation of sports and school mental health education projects, and building a fully functional, mutually supportive, collaborative, and linked mental health education ecosystem. The construction process of this ecosystem emphasizes the inherent connection and interaction between physical education and mental health education. It aims to break the traditional educational barriers through interdisciplinary cooperation and resource sharing, and achieve seamless connection and deep integration in multiple dimensions

such as education goal setting and teaching content arrangement, teaching method application, and education effect evaluation.

At the goal level, we strive to incorporate improving students' physical and mental health, shaping positive personality traits, cultivating good interpersonal skills, and psychological resilience to cope with stress and challenges into the core goal system of physical education and mental health education. In terms of content design, we closely combine elements such as teamwork, frustration education, and self-transcendence in sports activities with topics such as emotional management, self-esteem, and interpersonal communication in mental health education, making them complementary and symbiotic teaching contents. In terms of teaching methods, we advocate teaching methods such as experiential learning, interactive teaching, and case analysis, so that students can naturally acquire mental health knowledge and skills in physical exercise. In constructing the evaluation system, we considered the comprehensive evaluation of students' physical and mental qualities, focusing on the mastery of sports skills and the improvement of mental health and development potential.

References

- Chen, W. Q. (2024). On the methods of incorporating mental health education into junior high school physical education teaching. *Ice and Snow Sports Innovation Research*, 5(4), 144-146.
- Cheng, Y. H. (2023). Research on the application of mental health education in physical education teaching in Lianyungang Xiyuan Middle School (Doctoral dissertation, Nanjing Institute of Physical Education, 2023).
- Fan, Y. F. (2023). Research on the impact of basketball in school sports on the mental health development of adolescents. Abstracts of the 13th National Sports Science Conference—Written Communication (Sports Psychology Branch). Chinese Society of Sports Science.
- Gu, X. Y. (2023). Paths and strategies of sports incorporating “mental education” under the background of sports and education integration (Doctoral dissertation, Gannan Normal University, 2023).
- Guo, H. J. (2023). Integration of physical education and mental health education. *Contemporary Sports Science and Technology*, 13(29), 166-169.
- Guo, Y., Zhou, K., & Wei, G. X. (2023). The whole brain remodeling effect of sports education for children and adolescents: An analysis based on the dual perspectives of mental health and psychological ability development. *Journal of Capital Institute of Physical Education*, 35(5), 465-474.
- Jin, X. F., & Li, W. J. (2023). Using sports heart: New exploration of wisdom empowering school mental health education. *Shanghai Education*, 67(28), 58-59.
- Li, N. (2023). Research on the integration of physical education training and mental health education in colleges and universities. *Sports World*, 52(11), 67-69.
- Qiu, Z. Y., & Zhong, M. S. (2023). School sports and the mental health development of adolescent students. Abstracts of the 13th National Sports Science Conference—Poster Exchange (Sports Psychology Branch) (1). Chinese Society of Sports Science.
- Wu, L. (2023). School sports and adolescent mental health development. *Sports Vision*, 4(19), 28-30.
- Xu, K., & Li, Y. Z. (2023). Implementation path of adding mental health education to physical education in colleges and universities. *Insight-Shaanxi*, 3(8), 115-117.
- Zhang, X. Y. (2023). The positive effect of school sports activities on the mental health of adolescents with subthreshold depression. Abstracts of the 13th National Sports Science Conference—Written Communication (Sports Psychology Branch). Chinese Society of Sports Science.