Academic Journal of Management and Social Sciences
ISSN: 2958-4396 | Vol. 13, No. 2, 2025

Multidimensional Empowerment and Practical Pathways of University Sports for Students' Mental Health

Yanan Wang *

Jiangsu Police Institute, Nanjing, Jiangsu 210031, China
*** Corresponding author Email:** 1175146934@qq.com

Abstract: Against the backdrop of intensifying social competition, university students confront multiple pressures, and mental health issues such as anxiety and depression have become increasingly prominent, posing serious challenges to student education and management. Physical activity can empower students' mental health across four dimensions—physiological foundations, emotion regulation, cognitive optimization, and social support—by modulating neurotransmitter secretion, providing channels for emotional release, enhancing cognitive function, and creating platforms for social interaction. To fully leverage the regulatory role of sports in mental health, universities should build an integrated intervention system that coordinates physical education with psychological services by optimizing curricula, strengthening student sports clubs, fostering a campus sports culture, and developing professional teaching staff. Such measures provide effective practical pathways for mental health education and promote students' holistic and healthy development.

Keywords: University Sports; Student Mental Health; Multidimensional Empowerment; Practical Pathways.

1. Introduction

In contemporary society, rapid economic development and intensifying competition have subjected university students to multifaceted pressures from academics, employment, and social life, with mental health problems becoming increasingly salient. In recent years, the prevalence of anxiety, depression, and interpersonal difficulties among college students has risen. These issues not only seriously affect students' learning and quality of life, impeding their personal growth and development, but also pose major challenges for university education and management. Accordingly, prioritizing college students' mental health and exploring effective interventions and promotion strategies has become an urgent task for the education sector and society at large [1].

As a positive and healthful lifestyle, physical exercise plays a significant role in promoting mental well-being, as demonstrated by numerous studies. During exercise, the body releases neurotransmitters such as endorphins and dopamine, which effectively regulate mood, alleviate symptoms of anxiety and depression, and engender feelings of pleasure and satisfaction[2]. Participation in sports also enhances self-confidence and self-efficacy, strengthens interpersonal skills, and cultivates resilience and team spirit. Therefore, higher education institutions should elucidate the empowerment logic by which sports benefit mental health, transcend the limitations of single-modality interventions in traditional mental health education, integrate high-quality resources, and innovate development models to construct a coordinated intervention system that aligns physical education with psychological services. This approach is both an inevitable response to the talent-training needs of the new era and an important practice for implementing "sports–education integration" and advancing the "fivefold education" agenda (moral, intellectual, physical, aesthetic, and labor education).

2. Analysis of the Current Status of University Students' Mental Health

2.1. Defining the Standards of Mental Health

Mental health is a complex, multidimensional construct encompassing cognition, emotion, volition, and behavior. For university students, it denotes not only the absence of mental disorders but also a positive psychological state and robust social adaptability [3]. Specifically: (1) Stable and positive affect—students maintain relatively steady moods, effectively regulate emotions when facing academic and life stressors, avoid prolonged distress from anxiety, depression, or anger, and sustain an optimistic outlook conducive to psychophysiological balance and well-being. (2) Sound cognitive functioning—students possess adequate intellectual capacity to learn, think, and solve problems; their thinking is clear and coherent, with good powers of observation, attention, memory, and imagination; they appraise their abilities realistically, remain open-minded, and continuously expand their cognitive horizons. (3) Strong social adaptability—students readily adjust to new learning modes, life rhythms, and interpersonal contexts; they build harmonious, stable relationships, observe norms, understand and respect others, communicate effectively, and collaborate well, thereby achieving productive person–environment fit. (4) Well-developed volitional qualities—students exhibit psychological resilience and frustration tolerance, set clear goals with firm conviction, proactively recalibrate mindsets, overcome difficulties, and demonstrate perseverance. (5) Integrated and coherent personality—personality components are well aligned without marked conflicts or splits; students are cheerful and optimistic, with temperament congruent with behavior, and they allow a positive life philosophy to guide actions and decisions, manifesting a balanced, harmonious character.

2.2. Manifestations of Current Mental Health Problems among College Students

Within today's student population, mental health problems present in diverse forms and exert adverse effects on learning, daily life, and personal development. First, anxiety—a prevalent issue—arises when students confront academic pressures and uncertain career prospects, producing excessive tension and worry that impairs daily functioning. Second, depressive tendencies—some students experience persistently low mood, diminished interest in formerly enjoyable activities, lack of drive and vitality, social withdrawal, and reduced self-evaluation; in severe cases, suicidal ideation or behavior may occur, inflicting profound pain on the individual and family. Third, interpersonal sensitivity—during this socially active life stage, some students become overly concerned with others' evaluations; minor incidents trigger misunderstandings and conflicts, fueling inner distress, dissatisfaction, or resentment, straining relationships and undermining psychological well-being. Fourth, inadequate learning motivation and school aversion—the autonomy of university study challenges students lacking self-management; difficulties adapting from secondary to tertiary learning, coupled with heavy self-directed tasks, lead to confusion, waning interest and motivation, and ultimately academic disengagement that hampers performance and development. Fifth, internet addiction—with ubiquitous connectivity, some students overindulge in online gaming, social media, or short-video platforms, neglecting real-world study, relationships, and activities; this fosters detachment from society and compromises future career development and social adaptation.

3. Multidimensional Empowerment of University Sports for Students' Mental Health

3.1. Physiological Foundations

Exercise exerts a marked regulatory effect on neurotransmitter and hormone secretion. Regular physical activity significantly improves students' bodily functions and fitness, thereby providing a solid physiological basis for mental health. When students engage in sport, the body enters an activated state in which the brain releases dopamine, endorphins, and other neurochemicals, improving mood and alleviating anxiety and depressive affect. Habitual training enhances physical fitness, boosts cardiopulmonary capacity, and promotes blood circulation, supplying the brain with sufficient oxygen and nutrients; it also optimizes brain structure and function, fostering development and efficiency in regions such as the hippocampus and prefrontal cortex. This strengthens cognition and mental agility, helping students maintain clear thinking and an efficient learning state under academic pressure while reducing anxiety arising from fatigue or physical discomfort. In addition, physical activity helps regulate circadian rhythms, improve sleep quality, relieve stress, and stabilize emotions. Over time, students who persist with exercise tend to adopt healthier, more regular lifestyles and habits.

3.2. Emotion Regulation

Sport offers college students an effective means of emotional regulation and stress relief, bolstering psychological resilience and enabling a more positive stance toward problem-solving. Through running, jumping, throwing, and other movements, students can discharge inner stress and negative emotions, transforming anxiety and anger into kinetic energy to achieve emotional balance and easing[4]. In team sports, students experience warmth and support, gain a sense of belonging and security, and mitigate loneliness and anxiety, thereby strengthening self-confidence, teamwork, and self-identity and forming a positive psychological cycle. In competitive contexts, they learn to remain calm and rational under pressure, cultivating emotional resilience and regulatory capacity. When facing difficulties and setbacks in sport, students repeatedly challenge and surpass themselves, learn to adjust their emotions, maintain optimism, actively seek solutions, and thereby acquire a sense of accomplishment and self-confidence that supports stable mental health.

3.3. Cognitive Optimization

Sport provides a platform for comprehensive self-understanding, helping students continuously discover their strengths and potential and deepening self-knowledge. First, it markedly enhances attention: during participation, students must focus on movement accuracy, timing, and coordination with teammates, and this sustained attentional training carries over to academic settings by improving concentration, reducing mind-wandering, and raising study efficiency. Second, exercise supports memory. During activity, the brain releases neurotransmitters such as dopamine and acetylcholine that are critical for memory formation and consolidation. Regular participation improves cerebral blood flow, delivering nutrients to memory-related regions (e.g., the hippocampus) and thereby strengthening memory. Third, sport cultivates mental agility and creativity: in competition, students must rapidly analyze opponents' strategies and adapt their own tactics, which implicitly trains reaction capacity and innovative thinking. Moreover, teamwork and adherence to rules demand sound logical reasoning and problem-solving, improvements that translate into superior performance in academic research and daily life.

3.4. Social Support

Sport creates rich, diverse settings and broad social platforms that facilitate interaction, enhance environmental adaptation, and strengthen interpersonal competence. Through teamwork and competitive engagement, students deepen mutual understanding and trust, forming close social networks that promote information sharing and experiential exchange while providing emotional support and solace. This not only hones communication and collaboration but also reduces loneliness and social anxiety, enhancing belonging and well-being[5]. Furthermore, the rule consciousness and ethos of fair play inherent in sport foster social responsibility and civic awareness, encouraging rational and objective engagement with societal issues. Participation in sporting events and activities also broadens horizons, enriches knowledge, and enhances comprehensive qualities and competitiveness, laying a solid foundation for future social life and career development.

4. Practical Pathways for Leveraging University Sports to Empower Mental Health

4.1. Optimize Physical Education Curricula to Build the Cornerstone of Mental Health Education

In line with the Guidelines for Physical Education Curriculum and Instruction in Regular Higher Education Institutions, universities should tailor PE curricula to students' physical and psychological development, diversify sport offerings, and enhance adaptability and effectiveness. While retaining traditional events such as ball games and track-and-field, institutions can introduce distinctive programs—e.g., rock climbing, archery, and martial arts—to meet heterogeneous needs, expand students' autonomy of choice, increase participation and initiative, and amplify the mental health benefits of exercise. Universities should also establish a dynamic course-adjustment mechanism that responds to societal trends and students' real needs by iteratively optimizing syllabi and designing innovative, targeted sport–mental health courses and activities that are both practical and appealing, thereby heightening student engagement[6]. In teaching practice, PE instructors should proactively integrate mental health education into coursework, embedding relevant content within specific sport modules to explain how exercise benefits mental well-being; they should guide students to experience psychological self-regulation through exercise, foster positive life attitudes and healthy lifestyles, and ultimately elevate mental health levels[7].

4.2. Strengthen Sports Clubs to Expand Platforms for Mental Health Education

Student sports clubs—voluntary, interest-driven mass organizations—serve as vital carriers of nationwide fitness and campus sport culture, as well as extensions of mental health education. Universities should actively encourage the creation and participation in diverse clubs; through club organization and governance, they can mount varied activities that ignite interest and enrich life beyond the classroom. Institutions should increase financial and logistical support, offer facilities and equipment, partner with nearby venues, and leverage online platforms to deliver virtual courses and "check-in" challenges that lift participation beyond time–space constraints. Interdisciplinary guidance is essential: universities can convene faculty from psychology, sociology, and sport science to form cross-disciplinary teams that help clubs plan evidence-based activities and rules; provide individualized exercise prescriptions, psychological adjustment training, and exercise-therapy guidance; and deliver precise, science-based sport–psychology interventions. In organizing activities, universities should offer attentive oversight and guidance, strengthen peer communication and mutual aid, and align club programming with the aims of student mental health education—thereby making sports clubs key bases for psychological well-being.

4.3. Cultivate a Sport Culture to Strengthen Guidance in Mental Health Education

A robust sport culture—imbued with health, resilience, and cooperation—provides implicit support, environmental immersion, and psychological empowerment. Universities should make full use of campus radio, bulletin boards, and WeChat public accounts to establish sport-and-mental-health columns that popularize knowledge and explain the science behind exercise-driven mood improvement and stress relief; through short videos and livestreams, they can communicate the idea that "exercise powers mental health," rendering education vivid and concrete and shaping accurate views of exercise. Beyond traditional meets and ball-game tournaments, institutions can host fun sports days, campus marathons, and sport carnivals that emphasize entertainment, interaction, and mass participation; they can also harness virtual reality to create immersive, exercise-based psychological training (e.g., VR sports games), lowering barriers to participation and offering more stages for students to perform—enticing them to put down phones, leave dorms, and cultivate enthusiasm for physical activity8]. Additionally, inviting elite athletes and sport celebrities for talks and exchanges—sharing training journeys and strategies for psychological adjustment—and recognizing "Sport Stars" and "Fitness Aces" can motivate broad participation, nurture a campus ethos that esteems sport, and create a subtle, nurturing environment for mental health education—a virtuous ecology where "bodies move and minds shine."

4.4. Develop Professional Faculty to Elevate the Quality of Mental Health Education

The deepening cross-fertilization of psychology, neuroscience, and sport science offers stronger theoretical and methodological underpinnings for research on exercise and mental health. Universities should regularly organize specialized training for PE teachers in mental health education to enhance literacy, knowledge reserves, and practical skills—equipping instructors to communicate effectively, provide accurate guidance during sport instruction and activities, and sensitively identify emerging psychological issues among individual students. In staffing, institutions should promote interdepartmental collaboration and explore "Exercise & Mental Health Mentor" workshops that tightly integrate PE faculty with campus mental health teams. With support from artificial intelligence and big data, universities can monitor and analyze students' exercise behaviors and mental health indicators, conduct dedicated "exercise and mental health" studies, and explore more scientific, precise intervention models—thereby supplying stronger evidence for personalized exercise-based interventions and mental health education and improving the scientific rigor, specificity, and efficacy of student mental health work[9].

5. Conclusion

Strengthening the mind through the body is a pivotal measure for student-centered education and the integrated implementation of the "Five Educations" (moral, intellectual, physical, aesthetic, and labor). It plays a normative, guiding, and leading role in deepening mental health education for university students. Upholding the principle of "health first," universities should proactively dismantle disciplinary silos, innovate mental health education models, and construct a more scientific and systematic sport–psychology collaborative intervention framework. In so doing, they will cultivate socialist builders and successors with all-round development and provide robust support for building a modern socialist country and advancing the great rejuvenation of the Chinese nation.

References

[1] Liu Chang, Zhang Jianwei, Shi Xiangyu. “Integration Pathways and Effects of University Sports and Mental Health Education” [J]. Chinese School Health, 2025, 46(01):153–154.

[2] Yu Pengkai, Sun Yijin. “Pathways for Embedding Physical Education into College Students’ Mental Health Education” [J]. Encyclopedic Knowledge, 2025, (18):58–59.

[3] Sun Lihai. “The Intrinsic Logic, Practical Dilemmas, and Pathways of Cultivating Well-Rounded Personalities in College Students through Physical Education.” Journal of Hubei University of Economics (Humanities & Social Sciences), 2025, 22(01):129–132.

[4] Pu Zhijun. “Research on the Integration of Physical Education and College Students’ Mental Health.” [J]. University, 2020, (48): 133–135.

[5] Qian Bulage, Bao Weiping. “The Effects of Physical Education on College Students’ Emotions and Related Teaching Strategies.” [J]. Journal of Baotou Vocational & Technical College, 2022, 23(03):30–32+39.

[6] Zhou Jing. “Research on the Impact of Physical Exercise on College Students’ Self-Efficacy.” Industry & Science Forum, 2024, 23(21):97–99.

[7] Xu Kun, Li Yazhen. “Implementation Pathways for Integrating Mental Health Education into University PE Teaching.” Qinzhi, 2023,(08):115–117. DOI:10.20122/j.cnki.2097-0536.2023. 08. 037.

[8] Han Jixing, Xu Xilin, Song Zhiqiang. “Smart Sports: Practical Pathways to Promote College Students’ Mental Health.” Sporting Goods & Technology, 2024, (22):187–189.

[9] Yu Haihao, Chen Xiaochun. “Pathways for Cultivating University PE Teachers’ Capacity in Mental Health Education.” Chinese School Health, 2024, 45(10):1524–1525.