

Integrating School Physical Education Into Adolescent Resilience Education in the Context of Integration of Sports and Education in the New Era: A Literature Review Study

SHI Yijie

Gdansk University of Physical Education and Sport, Gdańsk, Poland

WANG Zibin

Northwest Minzu University, Lanzhou, China

Mariusz Lipowski

WSB Merito University in Gdańsk, Gdańsk, Poland

Contemporary society spotlights youth's mental health, emphasizing resilience education's potential. It fosters a proactive stance towards challenges, enhancing psychological resilience and reducing mental health concerns. The innovative approach of merging physical and educational aspects, termed "Integration of Sports and Education", aims to cultivate adolescents holistically. This study delves into seamlessly incorporating resilience education into physical education, underlining its role in boosting psychological resilience amidst challenges. Analyzing 46 influential articles from 270 illuminates China's evolving physical education philosophy and current adolescent psychological resilience and advocates for the fusion of resilience education. Challenges in execution are explored, accompanied by viable strategies. These findings establish a sturdy literature foundation, supporting future research and offering insights for the effective amalgamation of youth mental health and physical education.

Keywords: integration of sports and education, physical education, adolescent's psychological resilience, resilience education

Introduction

Sports have assumed an increasingly pivotal role, catalyzing bolstering self-assurance, advancing physical well-being, nurturing social interactions, eliciting competitive spirit, and reinforcing familial ties. Furthermore, regular engagement in physical activities has been shown to positively influence individuals' health (Galan, Iryna, Zoriy, Briskin, & Pityn, 2017). As outlined by the World Health Organization (2023), the conceptual framework of health extends beyond the mere absence of ailment or frailty, encompassing a comprehensive state of well-being that embraces physical, mental, and social dimensions. Effective implementation of physical education

Conflict of interest: We have no known conflict of interest to disclose.

SHI Yijie, Master's degree, Faculty of Physical Culture, Gdansk University of Physical Education and Sport, Gdańsk, Poland.

WANG Zibin (Corresponding author), Ph.D., Assistant Professor, School of Educational Science and Technology, Northwest Minzu University, Lanzhou, China.

Mariusz Lipowski, Ph.D., Associate Professor, Faculty of Social and Humanities, WSB Merito University in Gdańsk, Gdańsk, Poland.

assumes a paramount position within the educational milieu. It facilitates the active participation of students in sports and catalyzes amplifying their intrinsic motivation, fostering a culture of positive sportsmanship, and nurturing a proactive awareness of the significance of sports. In doing so, it catalyzes comprehensive development and fosters robust adolescent maturation (Liu & Wei, 2022).

The integration of sports and education has transcended its previous limited objective of nurturing elite athletes for the nation. Instead, it has undergone a transformative shift driven by a “people-centric” ideology (Han & Yuan, 2022). This evolution has propelled sports into an innovative educational paradigm, allowing every young individual to engage in sports-based learning, training, and competitive activities. This departure from their routine lives immerses them in a distinctive educational milieu characterized by a harmonious blend of competition and cooperation, a steadfast adherence to rules, and an unwavering commitment to excellence. Within such an immersive setting, adolescents are exposed to a spectrum of experiences encompassing achievement and setback, self-awareness and personal growth, and reverence for peers and regulations while navigating the intricate balance between rivalry and collaboration within a condensed timeframe (Hao & Liu, 2021).

Within the contemporary framework of integrating sports and education, it is imperative for school physical education to wholeheartedly embrace its fundamental mission of instilling virtue and nurturing holistic individuals. This mission should embody the values encompassing “embracing joy, enhancing physical well-being, fostering determination, and refining character” (Liu & Wei, 2022, p. 21). As such, the focal point of physical education should center on fostering students’ comprehensive literacy, thereby facilitating the unleashing of their physical prowess while concurrently nurturing positive psychological attributes and fostering social adaptability throughout their wholesome maturation.

This study employs a literature review methodology to comprehensively investigate around 270 articles spanning the last decade, encompassing physical education, resilience education, and their integration. Through a rigorous and meticulous selection process, a subset comprising high-quality and extensively cited articles (a total of 46) was meticulously chosen for thorough analysis. However, notwithstanding the prolific literature dedicated to physical education and resilience education, the research specifically focusing on the productive integration of resilience education within the framework of physical education, aimed at amplifying adolescents’ psychological resilience and their adeptness in navigating setbacks, remains relatively limited. Given the escalating importance of psychological resilience among adolescents in the modern milieu, this study is firmly rooted in harmonizing physical education with resilience education. It systematically explores multifaceted dimensions to yield insightful recommendations for the purposeful integration of resilience education within physical education.

In the first section, the researchers provide an extensive exposition of the historical evolution of physical education in China. This historical exploration offers a foundational backdrop for subsequent analyses. The second section comprehensively explicates psychological resilience and resilience education, concurrently delineating the current state of adolescents’ capacity to navigate challenges in China and other countries. This section contributes to understanding adolescents’ genuine needs in confronting setbacks and how to address these needs within the domain of physical education selectively. Subsequently, the third section delves into the necessity and significance of infusing resilience education into physical education. This segment is crucial in substantiating the rationale for integrating resilience education into physical education and offers theoretical underpinnings for the ensuing recommendations. Lastly, the fourth section draws on existing research to

scrutinize the inadequacies in implementing resilience education within the fusion of physical and educational domains. This scrutiny leads to the proposal of potential strategic suggestions. These recommendations are rooted in the extant literature and are designed to furnish specific and viable guidance for the practical execution of resilience education within physical education.

In summary, the present study aims to conduct an extensive and in-depth analysis by approaching the integration of physical and resilience education. Its principal goal is to offer insightful perspectives and strategic recommendations to enhance adolescents' psychological resilience and capacity to navigate setbacks effectively. Ultimately, this endeavor contributes to the progressive enhancement of the efficacy of physical education.

The Historical Evolution From “Enhancing Physical Fitness” to “Integration of Sports and Education”

From the establishment of the People's Republic of China in 1949 to the onset of the 21st century, a pivotal epoch of socialist construction characterized by distinct transformations and advancement was unfolded. Within this timeframe, China underwent three significant shifts in its strategies concerning promoting physical and mental well-being among children and adolescents. These transitions encompassed: an initial focus on disease prevention through targeted physical health policies; subsequent emphasis on augmenting physical fitness via specific interventions; and ultimately, adopting a holistic health policy with the nurturing of talent as its central objective (Wang et al., 2020).

During the period of post-1949 economic recovery after the establishment of the People's Republic of China, diverse regions proactively engaged in extensive “Patriotic Hygiene Campaigns” guided by the Central Epidemic Prevention Committee. These initiatives were directed at disease prevention, preservation of public health, and enhancement of living conditions. Notably, this campaign holds profound historical significance in the realms of disease prevention and environmental improvement, garnering noteworthy recognition from Zhou Enlai in 1954 (He, 2019). In the year 1950, against the backdrop of addressing student malnutrition and with the objective of elevating their physical well-being, Comrade Mao Zedong introduced the rallying cry “Health First, Study Second”. This imperative was intended to promulgate the concept across the educational domain (He, 1988; Zhou, 2001). Concurrently, the Central People's Government issued the “Decision on Enhancing Students' Health across All Levels of Schools”, thereby accentuating the paramount importance of students' physical well-being. This proclamation framed the assurance of students' physical health as a pivotal endeavor to facilitate the fulfillment of academic obligations and foster the cultivation of resilient and thriving contemporary youth. Noteworthy attention was attributed to the influence of physical exercise on students' physical development within this mandate. Significantly, this represented the inaugural instance since the inception of the People's Republic of China, wherein administrative measures were instituted to address student health-related concerns (Liao, 1997).

In October of 1958, China introduced the “Preparation for Labor and National Defense Physical Education System”, a policy that actively encouraged the participation of primary and secondary school students in physical exercises and fitness assessments. Within that era, this policy effectively contributed to reducing diseases among children and adolescents, thereby substantially advancing public health objectives (Zeng, 2005). In January of 1966, the country explicitly mandated schools to proactively organize physical and recreational activities to enhance students' physical fitness. Building upon this, in 1975, the State Council promulgated the inaugural “National Physical Exercise Standards” policy, specifically targeting the youth population and promoting their

active engagement in physical activities to elevate their physical well-being. This directive was aligned with the broader goals of socialist modernization and national security endeavors.

By early 1978, China convened its most expansive National Sports Work Conference, accentuating the imperative of fostering comprehensive youth development and fundamentally augmenting the physical fitness of the populace. This heralded a pivotal shift whereby health policies extended their focus from student cohorts to encompass the entire demographic spectrum. This shift not only facilitated the orderly execution of health policies for children and adolescents but also laid a robust groundwork for the recalibration and strategic evolution of health policies during the nascent phases of reform and opening-up (Tan, 1999). Subsequently, in May of 1979, during the Yangzhou Conference—a seminal national gathering on school physical education and hygiene—the guiding ideology of school physical education was explicitly delineated, centering on enhancing students’ physical fitness (Meng & Wang, 2010). This juncture marked the formal inception of China’s dedicated exploration into cultivating physical well-being among children and adolescents. Over time, pertinent policies transitioned towards a more systematic and scientifically guided orientation, emphasizing a people-centric ethos and the overarching value of comprehensive development (Yan, Fu, & Wang, 2019).

In 1983, the National Sports Commission, for the first time, presented the recommendation to strive to become one of the “Sports Powerhouses”, followed closely by the issuance of the “Notice on Further Developing Sports Activities” by the Central Committee of the Communist Party of China the subsequent year. This notice introduced the ambitious goal of building a “Sports Powerhouse” for the first time. Simultaneously, the statement also advocated the establishment of a system of physical and health records for primary and secondary school students, aimed at assessing students’ physical fitness and health status, thereby providing robust support for nurturing specialized talents and future labor force for the realization of the “Four Modernizations” in the country. Entering the late 1980s, China actively advocated introducing quality education, aiming to facilitate comprehensive development in morality, intelligence, physical fitness, and aesthetics for students.

In 1990, to ensure the orderly progress of school physical education and promote students’ physical and mental health, the Ministry of Education and the Sports Commission jointly formulated the “Regulations on School Physical Education”, which clarified the mission of school physical education, emphasized the enhancement of students’ physical and mental health, and aimed to improve their physical fitness. With the continuous deepening of the socialist market economy reform, the Communist Party and the state increasingly emphasized health issues, mainly focusing on school physical education and mass sports. A series of policy documents were successively formulated and released, including the “Outline of China’s Educational Reform and Development”, the “Law of the People’s Republic of China on Physical Culture and Sports”, and the “Outline of the National Fitness Program”. These policies encouraged students to actively engage in sports activities, promoting holistic body and mind development. The school physical education curriculum also underwent constant innovation to ensure students’ physical and mental well-being and comprehensive development, laying a solid foundation for practicing the new era’s “Health First” concept in school physical education (Wang et al., 2020).

In the mid-1980s, China witnessed the emergence of the holistic concept of “three-dimensional” physical education, encompassing biological, psychological, and social aspects. This comprehensive approach to physical education departed from the traditional singular biological perspective, marking a profound shift in the concept of sports instruction (Cheng, 2010). During this period, a diversity of viewpoints emerged in school physical education, including competitive sports ideology, lifelong sports concepts, and joyful sports ideas, contributing to the initial formation of China’s modern sports science ideological framework. Looking back at this

developmental phase of school physical education ideology, it was significantly influenced by the context of striving for technological strength and the broader environment of educational reform and innovation. Grounded in scientific viewpoints such as biological and natural perspectives on sports, it led to a deeper understanding and refinement of the discipline, driving changes in the tasks of school physical education. This era also marked an exploration phase of school physical education guidance, guided by a scientific perspective on sports and centered on the development of the discipline (Wang et al., 2020).

In the context of the new era, promoting the reform and development of school physical education has become a significant mission in building an educationally and sportsally strong nation and implementing the “Healthy China” strategy. Examining school physical education from new perspectives, with new understanding and viewpoints, is an inevitable choice to meet the demands of the times. Against this backdrop, “integrating sports and education” has been put forward. It is based on the summary of the development process of school physical education, addressing its experiences and challenges and actively exploring the fundamental characteristics and inherent operational rules of school physical education in the new era. It aims to provide essential guidance for the scientific development of education and the positive operation of school physical education in China. This concept highly integrates national development needs, the requirements of the era, and the developmental needs of students, embodying the call of the times and the values of humanism (Wang et al., 2020).

Since the emergence of the concept of comprehensive quality education in the 1990s, especially the idea of integrating sports and education, China has entered an era of promoting physical education and health promotion comprehensively. Related policies have been continuously improved and developed, primarily manifesting in three aspects: Firstly, guided by the strategy of revitalizing the country through science and education, there is a pursuit of the comprehensive development of individuals; Secondly, driven by the “Healthy China” strategy, there is an emphasis on promoting the entire population’s health; Lastly, guided by the system of integrating sports and education, efforts are made to promote the coordinated development of sports and education (Wang et al., 2020).

These three aspects are developed based on inheritance, mutually supporting each other, and highlighting the new characteristics of health promotion and talent cultivation in the new era. The concept of integrating sports and education implies the integration of cultivating competitive talents with the national education system. Since the founding of the People’s Republic of China, the development of sports and education has gone through three stages: coordination, integration, and integration of sports and education. In the initial coordination stage, sports and education jointly pursued the goal of “enhancing people’s physical fitness”, creating a “golden age” for mass sports in China. The integration stage emphasized sports’ athletic gold medal value, leading to an imbalance between athlete development and cultural learning. In the new era, one critical challenge is improving young people’s physical fitness and optimizing the structure of competitive talents. Integrating sports and education combines the essence of coordination and integration of sports and education, forming an organic whole (Wang et al., 2020).

Psychological Resilience, Resilience Education, and Adolescents’ Ability to Confront Adversities

Resilience denotes the inherent capacity of individuals to skillfully confront and adapt to adverse circumstances, challenges, or setbacks. Individuals’ intrinsic self-protective biological responses become prominent when life

undergoes alterations that pose potential threats (Yu & Zhang, 2005). A noteworthy revelation has emerged within the realm of developmental psychology in the United States: many children who confront adversities like parental illness, family disruption, or economic hardship do not capitulate to these predicaments as predicted. Instead, they mature into individuals distinguished by confidence, competence, and compassion (Werner, 1989). This intriguing phenomenon has captivated researchers, propelling the conceptualization of resilience as a pivotal facet of childhood development. Subsequently, its purview has expansively encompassed domains, including special education, psychological counseling, healthcare, community advancement, and even public health (Yu & Zhang, 2005). Since the pioneering investigations of the 1970s, the resilience domain has experienced a burgeoning proliferation of research themes and intervention strategies, indicative of its escalating significance and interdisciplinary reach (Yu & Zhang, 2005).

The American Psychological Association defines resilience as the capacity of individuals to effectively adapt when confronted with adversity, trauma, tragedy, threat, or significant stressors, implying the ability to exhibit “bounce-back” responses in the face of life’s pressures and setbacks (Joyce et al., 2018). Resilience appears to possess an enigmatic quality, leading some to contend that it is a trait possessed only by a fortunate few. However, years of research indicates that by contrasting individuals with high resilience against those facing comparable adversities yet lacking robust adaptation, resilience is a widespread attribute (Masten, 2001). Werner’s longitudinal study conducted over three decades in Hawaii found that approximately one-third of high-risk children managed to traverse childhood and adolescence successfully despite their challenging circumstances and adapted to family and school life, achieving educational and vocational accomplishments (Werner, 1989). Case analyses in psychological counseling similarly reveal that after experiences of loss, violence, or life-threatening events, most individuals do not experience enduring psychological disorders. Quite the opposite, they can emerge from trauma, adapting to novel circumstances (Bonanno, 2008). Biological organisms, driven by self-preservation and survival imperatives, possess an inherent ability for dynamic regulation and immediate adaptation in response to environmental shifts. This intrinsic “self-regulation mechanism” of biological heritage manifests naturally within resilience (Sander, 1987). Resilience, seemingly an inherent self-protective instinct within the human organism (Richardson, 2002), spontaneously operates during adversity, propelling individuals to surmount life-threatening challenges, pursue self-actualization, and sustain psychological equilibrium. The factors underpinning resilience encompass nearly all positive qualities within the domains of stress and health psychology, including self-esteem, self-efficacy, sense of responsibility, achievement motivation, planning proficiency, internal locus of control, high expectations, self-discipline, critical thinking, optimism, among others (Garmezy, Masten, & Tellegen, 1984).

A comprehensive education must encompass both psychological well-being and the cultivation of adversity. This imperative not only pertains to the wholesome development of students but also extends to nurturing high-quality talents for the new era and bearing implications for the future and destiny of nations and societies (Li, 2023). German educator Bollnow perceives the educational process as a synthesis of discontinuity and continuity, emphasizing the constructive role of abrupt events in life and their determinant impact. This perspective has given rise to non-continuous education, including forms of crisis, encounters, warnings, calls, and awakenings. Adversity education, therefore, aligns with this paradigm (Friesen, 2022). Building upon the theory of non-continuous education, Zhang and Wang (2017) assert that frustration education is an essential mission of education. As individuals navigate life’s journey, they encounter various crises, awakenings, and disruptions in their developmental trajectories, necessitating that educational institutions confront these interferences and

setbacks. Frustration education aims to assist students in preserving their inherent capabilities and mitigating the decrement in aptitude caused by setbacks. This holds therapeutic significance. Pan (2016) contends that frustration education constitutes an instructional endeavor, wherein presenting factors that lead to setbacks within human activities enables learners to acquire knowledge about adversity and enhances their capacity to cognitively engage with and navigate such challenges.

Within the framework of frustration education, educators, attuned to students' psychological states and learning conditions, utilize real-life obstacles or intentionally create scenarios to provide accurate guidance. This approach augments students' resilience and psychological endurance, fostering their ability to perceive and respond to setbacks in an informed manner. The intention is to cultivate a constructive outlook towards adversities, empowering learners to confront life and learning with a positive mindset (Peng, 2014). As postulated by Peng (2014), frustration education serves as an educational endeavor to guide learners in enhancing cognitive abilities, continuously fortifying psychological resilience, and facilitating a dialectical perspective toward societal pressures. This perspective involves acknowledging the outcomes of setbacks, overcoming negative emotions, adapting to the environment, and actively confronting life.

One prominent source of stress that impacts individuals' regulation of their responses is the degree to which they permit factors of frustration, such as deprivation, relinquishment, scarcity, and challenges, to exert influence over their personal, social, and vocational domains (Horst, 2000). In the contemporary landscape, the issue of psychological resilience and the capacity to navigate setbacks and adversities among adolescents has gained substantial societal attention. Adolescent mental well-being has emerged as a critical societal concern, with suicide emerging as a particularly grave psychological crisis intricately linked to psychological resilience. International scholarship has unveiled disparities in youth suicide rates across diverse nations and regions. Nevertheless, a consistent inverse association between psychological resilience and inclinations toward suicide has been discerned. Researchers have undertaken rigorous investigations into this complex phenomenon, employing methodologies including systematic literature reviews and comprehensive survey questionnaires to deepen the understanding of this intricate interplay.

According to surveys, approximately one out of every six middle school students in China has experienced suicidal thoughts. In China, concerns surrounding suicide rates persist, particularly accentuated in rural regions and among left-behind children. However, enhancing psychological resilience and coping strategies have proven effective in diminishing suicidal tendencies (Xu et al., 2014; Zhao, Yang, & Phillips, 2015). Taking Australia as an example, Robinson, Bailey, Browne, Cox, and Hooper (2016) employed a systematic review approach to analyze suicide-related data from diverse regions and timeframes, shedding light on the prevalence of suicidal ideation and plans among adolescents, thereby emphasizing the urgency of the issue. Similarly, Lubman et al. (2017) explored the link between family relationships and suicide tendencies, revealing a significant inverse relationship between intimate family connections, school belonging, and suicidal risk. In the United States, Ivey-Stephenson et al.'s (2020) study likewise portray a comparable trend, with elevated rates of suicidal ideation and planning among high school students. Research conducted in Canada exposes the association between family instability, substance abuse, and suicide (Sinyor, Schaffer, & Cheung, 2014), while highlighting the pivotal role of school atmosphere and peer support in suicide prevention (De Luca, Franklin, Yueqi, Johnson, & Brownson, 2016).

This situation is distressing, especially when we witness some adolescents resorting to extreme measures when facing setbacks, revealing their inner vulnerability. The low resilience of adolescents may have multiple

underlying causes, with overindulgent parenting and deficiencies in school education being identified as significant factors. Although the government has advocated including resilience education in school quality education, it has remained largely theoretical due to its complexity and limitations, failing to develop distinctive and feasible practical approaches (Xu & Li, 2023). In the current context, there is an urgent need for more in-depth research and exploration of adolescents' psychological issues and frustration education to seek more effective educational strategies. These strategies can help adolescents develop the ability to cope positively with setbacks, enhance their psychological resilience, and promote their healthy growth and comprehensive development.

To conclude, the issues concerning adolescent mental health exhibit both common attributes and distinct discrepancies across different global contexts. The inherent connection between psychological resilience and proclivities toward suicide highlights the seriousness of this concern, with familial dynamics, social assistance, and additional determinants significantly shaping the psychological welfare of adolescents. In the endeavor to mitigate the risk of youth suicide, it is imperative for nations to prioritize the cultivation of psychological resilience and concurrently implement precisely targeted intervention strategies.

The Necessity of Integrating Physical Education Into Resilience Education

Currently, frequent occurrences of suicide and violent behaviors among adolescent students are mainly attributed to their poor resilience and lack of willpower to cope with life's hardships and challenges (Zhang, 2010). Physical education, focusing on student-centered practices, aims to facilitate self-construction and self-transcendence in students. By creating certain adversities, students are exposed to mental challenges that push their limits, experiencing setbacks, hardships, and blows that forge their determination and allow them to grasp the complexities and joys of life. In the context of frustration education in physical education, students are regarded as the main participants, with the objective of nurturing their unique character and spiritual demeanor through free engagement in sports activities. Such an education instills hope and courage in students when faced with setbacks, empowering them with the strength and confidence to bravely confront anxieties, encounters, and tragedies in life. They strive and resist the pressures and coercion inflicted upon their lives, thereby constructing the meaning and hope of life. As a result, their perception of life's significance and value is strengthened through their struggle and resistance (Xie, 2001).

School physical education, with its rich practical scenarios, creates favorable conditions for the implementation of frustration education, which requires educators to utilize various setback situations purposefully and systematically, enabling the learners to understand setbacks, prevent them, and enhance their ability to cope with setbacks (Yang & Peng, 2004). Nevertheless, from a dialectical perspective, setback environments have dual functions, both positive and negative. Positive setback environments can temper one's will, shape a well-rounded personality, and improve social adaptability. In contrast, adverse setback environments can lead to excessive anxiety, fear, and a fear of failure, causing psychological shadows (Zhao, 2018). Therefore, physical education teachers should reasonably use setback scenarios in the classroom, select appropriate forms of physical activities based on student characteristics, and design different situations to allow students to experience authentic setback experiences, thus enhancing their psychological resilience (Xu & Li, 2023).

In a study conducted by Wang (2017), a comprehensive survey involving 710 students was undertaken, revealing a significant and positive correlation between students' attitudes toward physical exercise and their levels of psychological resilience. Notably, Wang emphasized that despite the national prioritization of students'

physical well-being, the persistent influence of test-oriented education, coupled with the allure of modern technological distractions like online games and smartphones, along with the adverse effects of societal factors, has substantially diverted students' focus away from active participation in sports pursuits. This diversion has notably hindered the cultivation of students' awareness, interest, abilities, and routines associated with physical exercise. Wang put forth the proposition that targeted and deliberate interventions in physical education aimed at reshaping students' perspectives on exercise have the potential not only to enhance their capacity to overcome challenges, setbacks, and stress, thereby promoting an improved state of physical and psychological well-being, but also to inculcate the habit of consistent physical activity. This sustained integration of mental and physical education could engender self-improvement, amplify social adaptability, and foster the development of a well-rounded character (Wang, 2017).

Hu (2015) conducted an investigative study utilizing a combination of literature review, expert interviews, and questionnaire surveys to delve into the imperative of character education among secondary school students. Within this context, she advocated for the practical integration of resilience education within the physical education curriculum framework. The study discerned that physical education courses' instructional components and classroom milieu offer a conducive platform for the seamless integration of resilience education. In a nuanced manner, physical education classes can adeptly guide students in formulating pragmatic objectives, fostering the fortitude to surmount apprehensions, nurturing enduring determination, and embracing a constructive outlook toward encountering setbacks. These pedagogical strategies expose students to the experiential facets of resilience through physical endeavors, thus potentiating their capacity to effectively confront and endure adversity (Hu, 2015).

Shao, Zhu, Ji, and Ma (2022) demonstrated the imperative and feasibility of integrating frustration education within physical education classes. The study highlighted the significance of individual variances as the underpinning for the effective implementation of frustration education, recognizing the intrinsic dualistic nature of setbacks as intrinsic to cognitive processes. Within the pedagogical sphere, physical education instructors are well-positioned to orchestrate frustration education through judicious selection of pertinent teaching resources, meticulous structuring of the curriculum, artful construction of authentic scenarios, refinement of educational methodologies, and accentuation of hands-on experiential exercises to foster a resilient sporting ethos. In a pragmatic vein, the study proffered actionable implementation strategies encompassing the recalibration of educational philosophies to accentuate experiential learning in contextual milieus, tailoring instruction to individual disparities, harmonizing instructional content, engineering a robust scientific framework, diversifying pedagogical approaches, and amplifying practical training regimens (Shao et al., 2022).

Xu (2015) conducted an empirical investigation to assess the prevailing status of resilience education implementation within four junior high schools in Changsha, China. The study findings illuminated that while educators specializing in physical education at Changsha's junior high schools uniformly acknowledged the inherent significance of resilience education, mere 35% of these pedagogues needed to be more adept at seamlessly integrating this critical facet into their instructional frameworks. The primary sources of adversities junior high school students encountered were heightened academic pressures and an apparent deficit in athletic prowess. Notably, most students proactively adopted coping mechanisms or sought external support. Intriguingly, the study also uncovered a noteworthy gender-based divergence, with male students evidencing markedly superior levels of resilience compared to their female counterparts. Emphatically, the study underscored the pivotal role of embedding resilience education as an instrumental approach for amplifying the capacity of junior

high school students to navigate and surmount adversities. To this end, the study extended a series of salient recommendations intended for educators specializing in physical education. These encompassed the adoption of a pedagogical paradigm underscored by inspiration rather than mere didacticism, the tailoring of instructional strategies to accommodate the heterogeneous tapestry of individual disparities, the strategic deployment of contextual pedagogies to expose students to experiential setbacks within the realm of physical activities, and the accentuation of moral and emotional education to instill a constructive and sanguine attitude towards adversities (Xu, 2015).

In practical application, the research offered pragmatic recommendations for physical education instructors to engender an environment conducive to cultivating resilience. This entails assigning tasks calibrated to appropriate complexity levels, engendering a moderate degree of frustration. Likewise, orchestrating group projects replete with challenges nurtures collaborative skills and teamwork. Furthermore, integrating endurance-focused activities is a crucible for fostering unwavering determination. Notably, the study advocated for incorporating sports competitions that encompass instances of “failure”, strategically harnessed as pedagogical tools to acquaint students with the art of confronting and adeptly managing setbacks. These tangible and experiential scenarios stand as suitable platforms for the infusion of resilience education. In summation, the research distinctly underscores that the seamless integration of resilience education within the contours of physical education pedagogy constitutes a potent conduit for the augmentation of students’ psychological well-being and their fortitude in navigating challenges (Xu, 2015).

In summary, the burgeoning psychological stressors and challenges confronting adolescents have emphasized their indispensable need for heightened psychological resilience and proficient coping mechanisms. Adolescence is a pivotal juncture marked by intricate physical and mental development. However, the intricate tapestry of pressures from academic obligations, interpersonal dynamics, and familial influences often renders adolescents susceptible to diminished stress endurance. Within this context, the incorporation of adversity education, notably through the conduit of physical education, emerges as an imperative strategic imperative. Physical education, functioning not only as an enhancer of adolescents’ psychological resilience but also as a tangible avenue for confronting setbacks, is paramount in arming them to adeptly navigate the manifold challenges intrinsic to their lives. School-centered physical education surfaces as a promising arena for assimilating adversity education. This platform concurrently provides adolescents with multifarious opportunities to partake in diverse physical pursuits while seamlessly embedding facets of resilience-building education. For instance, adept physical educators can adeptly orchestrate tasks and exercises calibrated to a moderate difficulty spectrum, nurturing within students the vital virtues of tenacity and adeptness in persevering through adversities. Moreover, the realm of physical activities, often characterized by the intertwined dynamics of cooperative teamwork and competitive zeal, offers adolescents a pragmatic milieu to experience both triumphs and tribulations, thereby germinating collaborative acumen alongside resilience. Through the harmonious integration of adversity education within the scaffold of school-based physical education, adolescents are poised to immerse themselves in authentic, real-world scenarios, thereby meticulously honing their coping strategies and markedly bolstering their psychological mettle.

Challenges and Strategies for Integrating Resilience Education Into Physical Education

The momentum behind adolescent resilience education is steadily growing in China, particularly in its integration within the physical education domain, which represents a relatively nascent focus area. A thorough

review of the available literature underscores the challenges that have been identified by previous researchers when attempting to implement adolescent resilience education within the framework of school-based physical education.

Lü (2011) highlighted the complex issues surrounding implementing resilience education in China's current educational landscape. Despite the acknowledged importance of resilience education among educational leaders and teachers, its practical integration often needs to be revised by the prevalent exam-oriented educational system. Consequently, resilience education adopts a formalized approach, lacking the necessary depth and meaningful application. Moreover, a range of misconceptions exist concerning the essence of resilience education. Some educators overly emphasize the significance of "extreme effort" and failure, inadvertently overlooking the potential adverse effects of subjecting students to excessively strenuous setbacks.

Furthermore, certain perspectives equate resilience education solely with overcoming failure, neglecting the broader goal of nurturing students' proactive capacity to confront challenges. This lack of precision in the conceptualization of resilience education extends to its implementation, with many institutions opting for a uniform curriculum design that fails to consider the unique needs of individual students. Consequently, this standardized approach must improve students' comprehension and acceptance, leading to potential resistance. Finally, instructional methods employed in resilience education tend to be monotonous, with a predominant reliance on theoretical exposition within the context of physical education. This practice often overlooks the application of alternative teaching methodologies, restricting the diversity and efficacy of resilience education. To address these complexities, educators are encouraged to demonstrate heightened creativity and enthusiasm, embracing a range of instructional models tailored to the distinctive requirements of students. By doing so, the allure and practicality of resilience education can be significantly enhanced (Lü, 2011).

Deng (2022) revealed an imbalance in the development of resilience among elementary school students. The effectiveness of resilience education during physical education classes varies among students from different schools and age groups, indicating individual differences. Some students struggle to control their subjective emotions and foster constructive perspectives when facing setbacks. Such incapability often manifests negative emotions, including agitation, panic, disappointment, and discouragement. Prolonged engagement in these negative emotional responses impedes the improvement of problem-solving abilities and exacerbates the potential for underlying psychological issues to arise.

Resilience education exhibits long-term, dynamic, and interconnected characteristics, with variability in both form and content. It requires schools to transcend the confines of their internal platforms during educational practices, enabling students to embrace nature, engage in societal life, and consciously undergo resilience education to enhance their social adaptability. However, many schools are constrained by concerns for student safety, striving to provide education within a secure campus environment. This approach limits students' exposure to the external world, resulting in a unidimensional and fragmented approach to resilience education that lacks genuine experiences of setbacks. Moreover, educational methods predominantly rely on theoretical impartation and verbal guidance, which needs to be more in order to instill in students a proper understanding of the importance of resilience education. Additionally, the incorporation of resilience education into physical education assessment and talent cultivation mechanisms needs to be improved. The absence of standardized evaluation criteria and unified requirements for educational outcomes hinders the effective utilization of incentives and supervisory constraints in promoting and overseeing resilience education (Wang et al., 2020).

In addition, there has been a historical tendency to neglect resilience education across various domains, such as schools and households. Within the educational system, schools have shown a deficiency in curriculum integration and the development of complementary resources dedicated to resilience education. Teachers have often lacked specialized training in the professional knowledge of resilience education and its integration with physical education instruction. This deficiency has manifested as a disconnect between intention and capability in the teaching process. While recent reforms in physical education instruction and the implementation of “dual reduction” policies have contributed to a general awareness of the significance and necessity of resilience education among various levels and types of schools nationwide, the influence of traditional teaching philosophies has limited the translation of these progressive ideas into tangible actions. Schools, households, and society at large still exhibit characteristics of delay in operationalizing these emerging concepts. As a result, implementing resilience education is prone to formalistic pitfalls, often constrained to merely enhancing students’ physical performance (Deng, 2022).

In response to the existing challenges surrounding the integration of resilience education into physical education, this study proposes the following strategic approaches:

Firstly, the creation of diverse setback scenarios is recommended. Educators can devise a range of situations involving setbacks, such as encountering failure in sports competitions or triumphing over formidable obstacles. This pedagogical approach encourages students to engage with setbacks through practical encounters, fostering the development of effective coping mechanisms and cultivating a positive mindset. However, it is essential to exercise prudence in tailoring the scenarios according to student’s age and developmental stage, ensuring that the level of challenge neither overwhelms nor trivializes their experiences.

Secondly, the provision of individualized support and guidance is crucial. Teachers are encouraged to formulate resilience education plans that cater to the distinct needs of each student. This can involve establishing open lines of communication to gain insights into students’ interests, aspirations, and challenges, which subsequently informs the tailoring of appropriate assistance and mentorship. Such personalized attention bolsters students’ self-assurance when confronting setbacks and reinforces their ability to effectively navigate such situations.

The third strategy involves guiding students to extract valuable insights from setbacks. When faced with setbacks, educators are advised to facilitate students’ introspection into the factors contributing to their failures and encourage extracting meaningful lessons from these experiences. This reflective practice empowers students to identify areas for improvement and devise actionable plans, fostering their self-awareness and honing their capacity for adept problem-solving.

In tandem, cultivating a constructive and nurturing learning atmosphere is advocated. Educators are well-positioned to foster an environment that encourages sharing setback narratives, success stories, and inspirational anecdotes. By doing so, students are provided with a context that normalizes setbacks as an inherent aspect of personal growth. This approach mitigates the stress associated with facing setbacks and facilitates students’ recognition of them as valuable learning opportunities.

Furthermore, the integration of resilience education within physical activities is proposed. Leveraging the inherent challenges and opportunities presented by physical endeavors, educators can consciously guide students to confront triumph and adversity during physical education classes. For instance, through collaborative sports projects, students can grasp the significance of teamwork and learn collaborative strategies for addressing setbacks.

Lastly, fostering collaborative synergy between the home and school environments is emphasized to promote resilience education. This involves close cooperation between educational institutions and families to nurture students' resilience. Schools may consider organizing informative sessions for parents to underscore the significance of resilience education and equip them with strategies to provide effective support and encouragement within the home context. This collaborative endeavor aims to consolidate the impact of resilience education across different spheres of students' lives.

Conclusion

In the context of the widespread integration of sports and education, many scholars have shifted their focus toward physical education as a unique mode of nurturing. However, previous research has predominantly emphasized how the amalgamation of physical and educational elements enhances the physical fitness of adolescents, leaving a relative dearth of investigation into enhancing their psychological attributes. Physical education holds the potential to serve as an effective tool in augmenting mental resilience and adeptness in handling setbacks among adolescents. Remarkable strides have been made in advancing integrated physical education and resilience education in China, yet areas for improvement remain apparent. More scholars must delve into empirical research to deeply explore the implementation of rationalized resilience education within the framework of physical education, thereby extending its benefits to a broader spectrum of adolescents. In future studies, our anticipation lies in fully harnessing the latent potential of physical education in nurturing psychological qualities, aiming to offer more targeted and feasible approaches and strategies for the comprehensive development of adolescents.

References

- Bonanno, G. A. (2008). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *Am. Psychol.*, 59(1), 20-28.
- Cheng, W. G. (2010). Connotation development and value appeal of health-oriented idea. *Journal of Shenyang Sport University*, 29(6), 6-9.
- De Luca, S. M., Franklin, C., Yueqi, Y., Johnson, S., & Brownson, C. (2016). The relationship between suicide ideation, behavioral health, and college academic performance. *Community Mental Health Journal*, 52(5), 534-540.
- Deng, X. (2022). Current situation and investigation of frustration education in physical education classes in primary schools—Taking football characteristic schools in Jiujiang City as an example (Master's Dissertation, Nanchang University, 2022).
- Friesen, N. (2022). Theory and practice in teacher education: (O.F. Bollnow, 1989). *Phenomenology & Practice*, 17(2), 90-103.
- Galan, Y., Iryna, S., Zoriy, Y., Briskin, Y., & Pityn, M. (2017). Designing an effective approach to sport for the integration in higher education institutions (the effects of yoga practice). *Journal of Physical Education and Sport*, 17(1), 509-518.
- Garnezy, N., Masten, A. S., & Tellegen, A. (1984). The study of stress and competence in children: A building block for developmental psychopathology. *Child Development*, 55(1), 97-111.
- Han, Z. F., & Yuan, G. S. (2022). *The conceptual transformation of deepening the development of integration of physical and educational approaches in the new era*. Shandong: Rizhao.
- Hao, D. F., & Liu, X. (2021). Educational logic of the integration of sports and education in the new era. *Journal of Beijing Sport University*, 44(1), 35-42.
- He, C. Y. (2019). Examining the cultivation of socialist "new individuals" through the Patriotic Hygiene Movement in the Beijing region from 1952 to 1954. *Shanghai Dangshi yu Dangjian*, 38(2), 29-33.
- He, D. C. (1998). *Key educational literature of the People's Republic of China*. Haikou: Hainan Publisher.
- Horst, H. S. (2000). *Personality tests. Profiles and types of personality. Complete tests and exercises. Analysis and evaluation. 400 questions*. Bucharest: Gemma Pres Publishing House.
- Hu, J. J. (2015). Research on the integration of resilience education in secondary school physical education teaching. *Physical Education*, 22(20), 90-91.

- Ivey-Stephenson, A. Z., Demissie, Z., Crosby, A. E., Stone, D. M., Gaylor, E., Wilkins, N., Lowry, R., & Brown, M. (2020). Suicidal ideation and behaviors among high school students—Youth risk behavior survey, United States, 2019. *MMWR Suppl*, 69(1), 47-55.
- Joyce, S., Shand, F., Tighe, J., Laurent, S. J., Bryant, R. A., & Harvey, S. B. (2018). Road to resilience: A systematic review and meta-analysis of resilience training programmes and interventions. *BMJ Open*, 8(6), e017858.
- Li, M. C. (2023). Research on the contents and paths of frustration education in elementary school physical education curriculum in the new era (Master's Dissertation, Capital University of Physical Education and Sports, 2023).
- Liao, W. K. (1997). Review and prospects of health education in primary and secondary schools in China. *Journal of Chinese Physical Education*, 11(3), 53-55.
- Liu, J. Y., & Wei, T. (2022). The value orientation and promotion strategies of the “five education parallel development” in physical education in higher education institutions under the background of integration of physical and educational approaches. *Sports Vision*, 3(9), 8-11.
- Lü, K. (2011). Applied research on resilience education in primary and secondary school physical education teaching (Master's Dissertation, Liaoning Normal University, 2011).
- Lubman, D. I., Cheetham, A., Jorm, A. F., Berridge, B. J., Wilson, C., Blee, F., McKay-Brown, L., Proimos, J., & Killackey, E. (2017). Australian adolescents' beliefs and help-seeking intentions towards peers experiencing symptoms of depression and alcohol misuse. *BMC Public Health*, 17(1), 658.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56(3), 227-238.
- Pan, X. (2016). The research of present situation and cultivation of setback education in the sports major students in Xi'an Physical Education University (Master's Dissertation, Xi'an Physical Education University, 2016).
- Meng, F. T., & Wang, C. (2010). Review of youngster's health problems since opening-up policy in China. *Journal of Sports Adult Education*, 26(2), 28-31.
- Peng, L. L. (2014). Research of middle school students' frustration education problems and countermeasures (Master's Dissertation, Central China Normal University, 2014).
- Richardson, G. E. (2002). The metatheory of resilience and resiliency. *Journal of Clinical Psychology*, 58(3), 307-321.
- Robinson, J., Bailey, E., Browne, V., Cox, G., & Hooper, C. (2016). *Raising the bar for youth suicide prevention*. Melbourne: Orygen, The National Centre of Excellence in Youth Mental Health.
- Sander, L. W. (1987). Awareness of inner experience: A systems perspective on self-regulatory process in early development. *Child Abuse & Neglect*, 11(3), 339-346.
- Shao, X. F., Zhu, Z. H., Ji, W., & Ma, A. M. (2022). Research on the influencing factors and implementation path of frustration teaching in junior middle school physical education. *Xuexiao Tiyu*, 30(10), 123-125.
- Sinyor, M., Schaffer, A., & Cheung, A. H. (2014). An epidemiological analysis of co-occurring substance use and mental health disorders in a Canadian community sample. *The Canadian Journal of Psychiatry*, 59(7), 375-381.
- Tan, H. (1999). A major turning point in sports in new China: The three-year adjustment in the field of sports since 1978. *Sports Culture Guide*, 1(5), 12-14.
- Wang, W. Q. (2017). A study on the relationship between college students' attitude toward physical exercise and psychological resilience. *Journal of Lanzhou University of Arts and Science*, 31(2), 95-100.
- Wang, X. Z., Yang, Y. G., Kong, L., Zhong, J. R., Yu, H. S., & Hao, Y. L. (2020). Historical evolution and policy change: From “strengthening physical fitness” to “integration of sports and education”—A characteristic analysis of the evolution of physical education and health promotion policies for children and adolescents in China. *China Sport Science and Technology*, 56(10), 3-10.
- Werner, E. E. (1989). Children of the garden island. *Scientific American*, 260(4), 106-111.
- World Health Organization. (2023). Retrieved from <https://www.who.int/home/search?indexCatalogue=genericsearchindex1&searchQuery=health&wordsMode=AnyWord>
- Xie, M. (2001). Existence and transcendence: An introduction to aesthetics of life. *Gansu Social Science*, 23(4), 98.
- Xu, H. Y. (2015). Study on the frustration education of junior middle school sports teaching in Changsha (Master's Dissertation, Hunan Normal University, 2015).
- Xu, Z. H., & Li, C. (2023). The value and strategy of intergrade frustration education into school physical education in the new era. *Liaoning Sport Science and Technology*, 45(1), 123-127.
- Xu, Z., Huang, F., Kösters, M., Staiger, T., Becker, T., Thornicroft, G., & Rüsch, N. (2014). Effectiveness of interventions to promote help-seeking for mental health problems: systematic review and meta-analysis. *Psychological Medicine*, 44(16), 3357-3368.

- Yan, S. Z., Fu, J., & Wang, R. G. (2019). From “improving physique” to “morality establishment and people cultivation”: Historical review of Yangzhou conference and new turn of school sports reform. *Journal of Sports and Science*, 40(4), 9-17.
- Yang, F., & Peng, Y. Q. (2004). Psychological interpretation of resilience education. *Educational Science*, 15(4), 62-64.
- Yu, X., & Zhang, J. (2005). Resilience: The psychological mechanism for recovery and growth during stress. *Advances in Psychological Science*, 13(5), 658-665.
- Zeng, H. H. (2005). Historical research on the implementation of the “labor health system” after the establishment of new China. *Sports Culture Guide*, 7(2), 74-76.
- Zhang, J. (2010). Focus on life—On frustration education sports and youth (Doctoral Dissertation, Northwest Normal University, 2010).
- Zhang, X. M., & Wang, Y. N. (2017). Interpreting resilience education in higher education from Bournonville’s discontinuous education theory. *Journal of China Adult Education*, 26(13), 67-69.
- Zhao, G. L. (2018). Reflection and construction: Study on school propaganda and school educational ideas (Doctoral Dissertation, Northeast Normal University, 2018).
- Zhao, P., Yang, R., & Phillips, M. R. (2015). Age-specific characteristics of serious suicide attempters in China. *Suicide and Life-Threatening Behavior*, 45(1), 57-69.
- Zhou, X. R. (2001). Research on establishment of guiding thinking of health first. *Journal of Beijing University of Physical Education*, 43(1), 16-18.