

The Effect of Physical Education on Improving College Students' Mental Health in the Context of Curriculum Ideology and Politics

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Abstract

This research centres on college students and investigates the influence of diverse physical exercise regimens on distinct facets of their mental well-being. Prior scholarship indicates a positive correlation between physical exercise and the mental health enhancement of college students. Physical exercise has been shown to regulate emotions, bolster mental well-being, and mitigate anxiety and depression. Consequently, the primary aim of this study was to scrutinize the impact of physical education on augmenting the mental health of college students within the framework of curriculum ideology and politics. This academic inquiry delves into the ramifications of engaging in three distinct sports activities—basketball, taijiquan, and cheerleading—on the mental well-being of female collegiate participants. The study scrutinizes the impact of exercise duration, exercise cycle, and exercise frequency on various psychological health parameters. Data were meticulously organized and subjected to analysis through the statistical software SPSS 11.5. Employing t-tests and one-way ANOVA, the study examines the psychological health indicators across the three distinct exercise programs, discerning the significance of disparities therein. Upon comparing the psychological health statuses of students before and after engaging in Taijiquan exercises, notable variances emerged across four dimensions: anxiety, terror, paranoia, and psychosis. Particularly noteworthy were the substantial disparities observed in the paranoia dimension. Cheerleading, a sport amalgamating dance and physical fitness set to music, serves as a fervently embraced pursuit among students, symbolizing zeal, youthfulness, and vivacity. Implications and engaging in basketball, Taijiquan, and cheerleading exercises has been found to be efficacious in alleviating anxiety levels among college students. Taijiquan, in particular, exhibits a distinctive efficacy in ameliorating paranoid tendencies, while cheerleading exercises manifest a superior spectrum of improvement factors compared to basketball and Taijiquan routines. Tailoring physical exercise programs to college students' age, gender, and psychological predispositions is imperative for optimizing mood enhancement and overall mental well-being. Individual psychological needs may vary across different time periods, underscoring the importance of selecting appropriate exercise modalities accordingly. Integration of these exercise regimens into university physical education curricula necessitates an augmented allocation of instructional hours, facilitating students' acquisition of requisite skills for autonomous exercise. This approach empowers college students to proficiently utilize their sports acumen and abilities for self-directed physical activity during leisure time, thereby augmenting the efficacy of physical exercise in advancing collegiate health outcomes.

Keywords: Curriculum Ideology and Politics, Athletic Sports, Mental Health.

Introduction

Universities have long grappled with a significant challenge in instilling moral values and nurturing talent: the lack of relevance and effectiveness in fostering students' initiative and creativity during the process of moral development (Qunhai, 2021). In the present era marked by profound societal transformations, ideological and political education transcends mere didactic instruction, posing the critical question of how to guide college students in self-awareness, commitment to ideals and beliefs, and cultivation of a sense of responsibility (Deng, 2014; Yu, 2022). Amidst the backdrop of a rapidly changing external environment and escalating internal challenges and

pressures, it is imperative for students to maintain their original aspirations without succumbing to misleading information or misguided ideologies prevalent in both online and offline realms. In navigating this terrain, it is essential to not only align with the developmental trajectory of college students' psychological growth but also respect their proclivity towards active and innovative learning (Zhou, 2022b).

The contemporary imperative underscores the convergence of mental health education and ideological and political education, emphasizing a people-centric approach that adapts to the zeitgeist (Jin, 2022). Echoing the notion that mental health constitutes an integral facet of ideological and political education (Quan & Xie, 2022), experts contend that while ideological and political education operates within the domain

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of ideology, it distinctively addresses societal, practical, and spiritual dimensions, diverging from the realms of psychology, philosophy, and ideology (Chang et al., 2021). Instead of framing ideological and political education and mental health education as hierarchical, scholars advocate for their synergistic interaction, stressing the importance of coordinated efforts to harness the pedagogical potential of curriculum-based ideological and political methods (Xie, 2022).

Mental health education, grounded in psychological principles and methodologies, aims to equip college students with knowledge, counselling skills, and positive behavioural patterns pertinent to mental well-being (Zou et al., 2021). Rooted in Marxist philosophy, political science, ethics, and other theoretical underpinnings, ideological and political education deliberately shapes the societal outlook of college students, seeking to mould their ideologies and steer social conduct (Jiang, 2021). Given the distinctive features of mental health education vis-à-vis ideological and political education, a convergence of both is deemed essential to keep pace with the evolving societal landscape, nurture individuals at a deeper level, and maximize the efficacy of collaborative educational endeavours (Xu & Du, 2021). In the realm of sports psychology, previous scholars and experts have conducted numerous studies investigating the impact of physical exercise on mental health. These studies have explored various aspects, such as potential differences in psychological effects among different exercise programs, aerobic versus anaerobic exercise, and collective versus individual exercise methods. While much of this research has focused on foundational theories and surveying conditions, it holds significant theoretical guidance. However, due to entrenched traditional ideological notions, there remains a dearth of comprehensive understanding regarding the "mental health effect" of physical education within university settings, with limited research conducted in this domain.

However, there are certain limitations in measuring the mental health status of college students. Owing to distinct periods of social development, the mental health landscape also undergoes variation. This scale is a product of its time and necessitates further investigation to ascertain its applicability for mental health measurement and counselling in today's social milieu. Questions also arise regarding its suitability for examining the relationship between sports and mental health, as well as its appropriateness for testing the mental health of the general population.

The ideological orientations of students in educational institutions have been influenced to a certain extent in recent years by rapid socio-economic growth and cultural diversity. Concurrently, these factors also impact the development, execution, and efficacy of the "College Student Mental Health" curriculum (Jiang & Li, 2022). Within the

university setting, curriculum ideological and political education emerges as a viable strategy for addressing the influence of cultural diversity on the teaching of courses related to college students' mental health (Wang, 2021a). Amidst the endeavour to advance the reform of ideological and political education within university curricula, it is imperative for institutions to adeptly integrate ideological and political education initiatives with teaching systems. This integration is vital for facilitating the seamless execution of the "College Student Mental Health" curriculum in strict accordance with pedagogical principles aimed at nurturing individuals while educating them. Such endeavours aim to enhance the psychological well-being, ideological and moral fortitude, and scientific and cultural acumen of college students. This, in turn, fosters an environment conducive to cultivating and refining students' core competencies and establishing a robust foundation for their academic and personal growth (Hu et al., 2022).

Given the preceding discourse on the impact of physical education on enhancing the mental health of college students, the necessity emerges to explore this correlation within the realm of curriculum ideology and politics. College students commonly grapple with mental health issues, which detrimentally affect both their overall welfare and academic performance. Yet, comprehending the specific role of physical education in mitigating these challenges necessitates a deeper exploration of the prevailing ideologies and political dynamics shaping educational policies and practices. Thus, this study aims to examine how the integration of physical education into the college curriculum, influenced by diverse ideologies and political considerations, can contribute to improving students' mental health. Consequently, it aims to offer insights for educational policymakers and practitioners to foster holistic well-being in higher education settings. The study comprises five main components: introduction, literature review, research methodology, data analysis and findings, discussion, and avenues for future research.

Literature Review

In recent years, there has been a growing focus among educators on the mental health challenges faced by college students (Li, 2022; Rahayu, 2023). Various studies have underscored the potential of physical exercise and activity in mitigating anxiety and depression levels, enhancing self-esteem, sustaining positive mood states, and fostering emotional well-being (Barton et al., 2012; Maugeri et al., 2020; Zschucke et al., 2013). A seminal statement titled 'Physical Activity and Psychological Benefits' issued by the International Society for Sport Psychology (ISSP) in 1994

synthesized a plethora of related research, affirming the mental health-promoting effects of physical exercise (Stambulova et al., 2021; Tan & Tu, 2024). Notably, studies have demonstrated immediate psychological improvements following single instances of physical exercise, such as a 30-minute run leading to significant enhancements in negative emotional states like tension, confusion, fatigue, anxiety, depression, and anger, alongside sustained vitality (Chang et al., 2021; Guo & Zhang, 2022). The impact of physical exercise on mental health appears to be influenced by factors including age, gender, occupation, exercise modalities, duration, and intensity (Chang et al., 2021; Guo et al., 2022). Otache et al. (2021) and (Kandoli, 2022) endeavours to assess the influence of entrepreneurial education (EE) on students' entrepreneurial intention (EI) by constructing the theory of planned behaviour (TPB), encompassing Attitude to Behaviour (ATB), Subjective Norms (SN), and Perceived Behaviour Control (PBC). This longitudinal study adopts a pre-test and post-test experimental design to ascertain whether students' ATB, SN, PBC, and EI significantly augment subsequent to exposure to EE. Additionally, it aims to investigate whether students' ATB, SN, and PBC mediate the relationship between EE and their EIs.

In a parallel discourse, (Guerrero-Pincay et al., 2023); Zhou (2022a) advocate for the optimization of allocation and utilization efficiency of rural sports resources as an integral facet of rural sports development. Leveraging the advancements in artificial intelligence (AI) technology, they posit its immense potential application within the realms of culture and education. AI technology is lauded for its user-friendly interface, adaptability, and robust generalization capabilities, prompting the selection of AI technology for data processing in their study.

Furthermore, this study delves into the effects of diverse physical exercise regimens on various dimensions of college students' mental health. Building upon prior research indicating the mental health benefits of physical exercise for college students, it seeks to elucidate the role of physical education in enhancing college students' mental well-being within the context of ideological and political coursework. Physical exercise is purported to serve as a mechanism for emotion regulation, mental health enhancement, and alleviation of anxiety and depression symptoms among college students.

The preceding discourse underscores the potential of PE in enhancing mental health outcomes among college students. Empirical investigations have consistently highlighted a positive correlation between physical activity and mental well-being (Dogramadjieva, 2022; Maltagliati et al., 2021; Okuyama et al., 2021). Given the myriad academic, social, and personal challenges faced by college students, the

prioritization of mental health has gained paramount significance within the collegiate milieu (Ghrouz et al., 2019; Khalid & Nyborg, 2022). However, the impact of PE on mental health transcends mere implementation and is intricately entwined with the broader context of curriculum ideology and politics.

Conversely, progressive ideologies that espouse holistic development and student well-being may engender an environment conducive to the integration of PE as a mechanism to ameliorate mental health (Sutarno & Anam, 2022; Yildizer & Munusturlar, 2022). Yet, scant research explicitly delves into the intersection of physical education, mental health, and curriculum ideology and politics within the college setting. A notable contribution by a prior study examined the influence of curriculum ideologies on PE provision in higher education institutions, revealing that establishments embracing progressive ideologies and prioritizing student welfare tended to offer more comprehensive and inclusive PE programs addressing mental health concerns.

Nevertheless, it is imperative to acknowledge the limitations inherent in extant research. The predominant reliance on self-reported measures of mental health and physical activity may be susceptible to recall bias and social desirability effects. Moreover, the bulk of research has predominantly focused on Western contexts, thereby neglecting the impact of diverse cultural and socio-political dynamics. Future research endeavours should employ rigorous methodologies, such as experimental designs and objective assessments of mental health outcomes, to delineate causal relationships and fortify the evidential foundation (Avenidaño, 2022; Okely et al., 2021). Furthermore, comparative studies spanning various cultural and political landscapes hold promise in furnishing valuable insights into the intricate interplay among physical health, mental health, and curriculum ideologies (Ibrahim et al., 2019; Ozdemir et al., 2020).

Prior studies have increasingly acknowledged the potential of physical education to enhance the mental health of college students. However, the influence of curriculum ideology and politics on the incorporation and efficacy of PE programs remains insufficiently investigated. Delving into this aspect could foster a more nuanced comprehension of the impact of physical education on college students' mental health within the framework of curriculum ideology and politics. Such insights can inform educational policies and practices aimed at nurturing holistic well-being within higher education environments.

Research Methodology

This study targeted college students enrolled in the 2019 and

2020 academic years, specifically focusing on freshmen and sophomores majoring in non-physical education disciplines. The participants, aged between 18 and 24 years, exhibited an average age of 21 years. The experimental phase spanned from March 2019 to December 2019. A total of 60 students, distributed across six classes, were invited to participate voluntarily in the exercise intervention. The experimental cohort comprised 20 individuals each assigned to basketball, Taijiquan, and cheerleading groups, respectively. Employing a random sampling approach, a questionnaire survey was administered, yielding 60 responses, of which 59 were deemed valid, indicating a response rate of 98.3%.

Experimental Method

Three cohorts of college students, comprising basketball, Taijiquan, and cheerleading participants, underwent a 12-week exercise regimen with identical exercise durations and frequencies. Self-assessments utilizing the SCL-90 scales were conducted during the initial and final weeks to evaluate the impact of the three distinct exercise programs on diverse dimensions of mental health. Subsequent comparative analysis aimed to discern and elucidate the effects of each exercise modality on mental health dimensions.

Guidance: The subsequent items comprise a set of potential inquiries intended to gauge your recent emotional state. Please review each item attentively and indicate the extent to which the described scenarios have influenced your actual feelings over the past week. Assign a score ranging from 1 for "none" to 5 for "severe" based on the intensity of the impact experienced.

1. Headache. 1-2-3-4-5
2. Nervous and insecure. 1-2-3-4-5
3. Unnecessary thoughts or words hovering in the mind. 1-2-3-4-5
4. Dizziness or fainting. 1-2-3-4-5
5. Decreased interest in the opposite sex. 1-2-3-4-5
6. Be accountable to others. 1-2-3-4-5
7. Feel that others can control your thoughts. 1-2-3-4-5
8. Blame others for causing trouble. 1-2-3-4-5
9. Forgetfulness is high. 1-2-3-4-5
10. Worried about the neatness of one's clothing and proper demeanour. 1-2-3-4-5
11. Easy to worry and get excited. 1-2-3-4-5
12. Chest pain. 1-2-3-4-5
13. Fear of open spaces or streets. 1-2-3-4-5
14. Feel a decrease in energy and activity. 1-2-3-4-5
15. Wanting to end one's own life. 1-2-3-4-5
16. Hear a voice that others cannot hear. 1-2-3-4-5
17. Trembling. 1-2-3-4-5
18. I feel that most people are untrustworthy. 1-2-3-4-5
19. Poor appetite. 1-2-3-4-5
20. Easy to cry. 1-2-3-4-5
21. Feeling shy and uncomfortable when interacting with

- the opposite sex. 1-2-3-4-5
22. Feeling deceived, trapped, or someone trying to catch you. 1-2-3-4-5
23. Suddenly feeling scared for no reason. 1-2-3-4-5
24. I lose my temper uncontrollably. 1-2-3-4-5
25. Afraid of going out alone. 1-2-3-4-5
26. Often blame oneself. 1-2-3-4-5
27. Low back pain. 1-2-3-4-5
28. Feeling difficult to complete the task. 1-2-3-4-5
29. Feeling lonely. 1-2-3-4-5
30. Feeling depressed. 1-2-3-4-5
31. Excessive worry. 1-2-3-4-5
32. Not interested in things. 1-2-3-4-5
33. Feeling scared. 1-2-3-4-5
34. Your emotions are easily hurt. 1-2-3-4-5
35. Others can know your private thoughts. 1-2-3-4-5

Mathematical Statistics

Statistical analysis was performed utilizing the statistical software SPSS 19.0. The psychological health indicators under three distinct exercise programs were analysed employing t-tests and one-way ANOVA methods, aiming to ascertain the significance of the observed differences.

Literature Method

Centring on the psychological investigation of physical exercise as the primary research objective, we conducted a comprehensive literature review utilizing data and online resources. The review encompassed a wide array of research domains including general psychology, health psychology, sports psychology, and psychological experimentation, among others. Over ten pertinent documents dating back to 1980 were scrutinized to gain insights into the ongoing research endeavours within this domain and to discern the principal trajectories of investigation.

Interview Method

Conduct interviews with the experimental participants to elucidate alterations in their psychological states (Ward et al., 2021).

Research Tools

Physical Exercise Questionnaire

The present questionnaire constitutes an internally devised instrument concerning physical exercise programs. It encompasses various inquiries such as the respondents' preferences regarding physical exercise programs, optimal exercise timings, and frequency per week. Additionally, it probes respondents' willingness to engage in preferred fitness clubs, their interest levels in physical education and teaching programs. Randomized experimental groups were stratified based on training venue, timing, content configurations, and predetermined participant quotas.

College Student Mental Health Questionnaire

The College Student Mental Health Questionnaire comprises 38 items distributed across nine dimensions: (1) Sense of physical and mental integration (items 3, 21, 23, 32); (2) Self-respect (items 7, 16, 18, 29, 35); (3) Balance of personality structure (items 11, 22, 33, 30); (4) Self-structure coordination (items 5, 17, 26, 34); (5) Interpersonal affinity (items 2, 9, 13, 20, 28, 31); (6) Role adaptation (items 14, 25, 36); (7) Natural intimacy (items 19, 27, 38); (8) Ideal Transcendence (items 1, 10, 12, 24); and (9) Belief and value (items 4, 6, 8, 15, 37). Expert revision ensured the structural validity and test-retest reliability of the scale, with results indicating high reliability and validity. Responses were rated on a Likert 5-point scale, with scores ranging from 1 for "completely non-compliant" to 5 for "fully compliant". Forward and reverse scoring methodologies were employed accordingly, with higher scores indicative of higher levels of mental health (Hadzigeorgiou, 2021).

Experimental Process

1. During one class session, experimental subjects were briefed on pertinent explanations and precautions regarding various aspects of the experimental study. Subsequently, a questionnaire survey was administered in the classroom to assess the degree of preference for different sports activities and to complete the initial scale before the experiment. Utilizing a self-compiled physical exercise project questionnaire, the experimental subjects (i.e., students volunteering to participate in the exercise experiment) were randomly segmented into groups based on group size, with the roster of students selected for pulse measurements delineated, accompanied by detailed

elucidation of specific requirements and methodologies.

2. Tabulate students' preferences for various sports activities, administer questionnaires, and subsequently ascertain specific physical exercise modalities. Based on the validated questionnaires, participants were categorized into three respective project groups: the Health Basketball Group, the Taijiquan Group, and the Cheerleading Group (Zimmerman et al., 2021).

3. Monitor intensity levels using a Polar Vantage device, selecting exercises of moderate intensity, equivalent to 50%-60% of maximal oxygen intake, with heart rates maintained between 100-130 beats per minute, assessed every 45 minutes. Based on fluctuations in students' heart rates, the instructor adjusts exercise methods appropriately to maintain activity intensity within the moderate range. The exercise duration spans ten weeks, with two mental health questionnaires administered before and after the experiment. All data were managed and analysed using statistical software SPSS 11.5, with mental health indicators under three distinct exercise modalities assessed through T-tests and ANOVA, employing a significance criterion of $P > 0.05$ for statistical results.

Results and Analysis

Number of College Students in Various Projects

Based on the compiled valid scale, Table 1 displays the respective counts of college students enrolled in three distinct project classes: basketball, Taijiquan, and cheerleading.

Table 1

Statistical Table of the Number of College Students in Three Different Projects (n=60)

Each Project Team	Basketball Class	Taijiquan	Cheerleading
Number of people	20	20	20

Analysis of Differences in Mental Health Levels Before the Experiment

Table 2

Analysis of Variance of College Students' Mental Health Level in the Three Sports Before the Experiment

Effectiveness Factor	T Value	P Value
Somatization	0.65	0.59
force	0.38	0.77
interpersonal relationship	1.17	0.33
depressed	0.36	0.78
anxious	0.79	0.51
hostile	0.37	0.78
terror	0.24	0.87
Paranoia	0.38	0.77
Psychopathic	0.04	0.99
other	0.84	0.48
Total Average Score	0.18	0.91

Note: * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$. The same as below

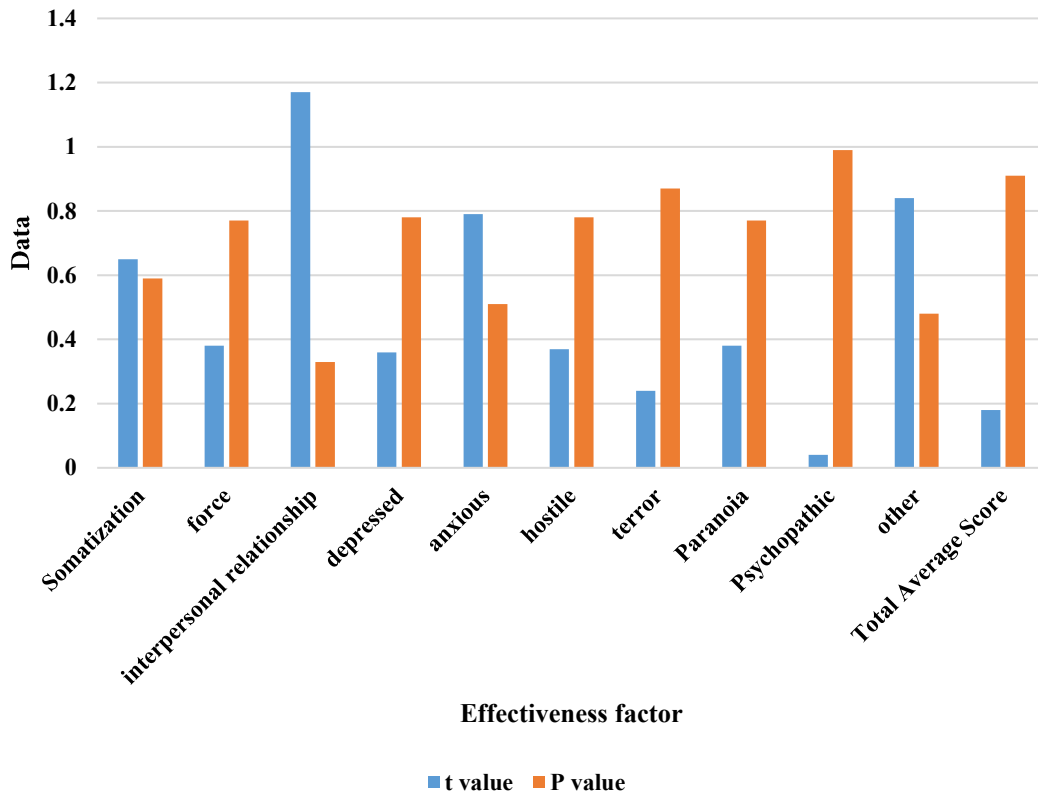


Figure.1: ANOVA of Undergraduate Mental Health Level in the First three Exercises of the Experiment.

In order to ascertain potential disparities in the mental health status of college students prior to the experiment, distinct analyses were conducted for basketball, Taijiquan, and cheerleading, with the findings presented in Table 2. Figure 1 illustrates that, across all mental health metrics,

college students in our program exhibited no discernible differences prior to engaging in physical activities. This suggests that the prevalence of mental health issues among college students closely aligns with the scope of our study.

Comparative Analysis of Various Dimensions of College Students' Mental Health Level in the Three Projects After the Experiment

Table 3

Test On the Differences in Various Dimensions of Mental Health Level of Basketball Project College Students Before and After the Experiment

Effectiveness Factor	Pre-test(x±s)	Post-test(x±s)	T value
Somatization	1.19±0.18	1.10±0.11	1.20
Force	1.68±0.25	1.55±0.51	0.60
Interpersonal Relationship	1.87±0.57	1.60±0.52	2.60*
Depressed	1.47±0.42	1.35±0.32	1.63
Anxious	1.47±0.24	1.32±0.23	2.34*
Hostile	1.22±0.23	1.20±0.18	0.39
Terror	1.29±0.29	1.18±0.18	1.59
Paranoia	1.67±0.62	1.34±0.31	2.40*
Psychopathic	1.45±0.39	1.41±0.34	0.36
Other	1.39±0.30	1.24±0.26	0.84
Total Average Score	1.32±0.22	1.23±0.26	1.23

Table 3 illustrates variances in the mental health status of college students before and after engaging in basketball practice across three dimensions: anxiety, paranoia, and interpersonal

disruption. This can be attributed to the competitive nature of basketball, which enhances students' physical fitness. Furthermore, the collaborative and confrontational nature of

practice sessions stimulates students' intellect and fosters teamwork skills (Chen & Yu, 2022). Consequently, students

experience enhanced interpersonal relationships and reduced levels of anxiety and paranoia.

Table 4

Test On the Differences in Various Dimensions of Mental Health Level of Taijiquan Class Students Before and After the Experiment

Effectiveness Factor	Pre-Test(X±S)	Post-Test(X±S)	T Value
Somatization	1.13±0.17	1.71±0.13	0.68
Force	1.68±0.41	1.58±0.56	0.89
Interpersonal Relationship	1.59±0.33	1.40±0.29	0.72
Depressed	1.40±0.49	1.33±0.29	0.82
Anxious	1.27±0.22	1.18±0.24	2.41*
Hostile	1.35±0.41	1.26±0.29	1.42
Terror	1.24±0.30	1.14±0.21	2.07*
Paranoia	1.52±0.32	1.17±0.20	5.70***
Psychopathic	1.43±0.38	1.26±0.26	2.55*
Total Average Score	1.25±0.25	1.16±0.19	3.19**

Taijiquan serves as a therapeutic modality integrating guidance and contemplation, practiced with a serene and tranquil mindset. This practice has been noted to regulate mood, enhance attention, modify negative personality traits, foster positive emotional states, and effectively mitigate symptoms of anxiety, psychosis, and paranoia. Moreover, it gradually transmutes individuals from having narrow-minded and distrustful dispositions to adopting affable and optimistic outlooks. Table 4 illustrates substantial disparities in students' mental health levels across four dimensions—*anxiety, terror, paranoia, and*

psychosis—before and after engaging in Taijiquan exercises, with particularly notable discrepancies observed in *paranoia factors* (Zhao & Ai, 2021).

Cheerleading, a dynamic sport amalgamating dance, fitness, and music, embodies fervour, youthfulness, and vitality, garnering significant popularity among students. Table 5 underscores marked alterations in five dimensions—*compulsion, interpersonal relationships, depression, anxiety, and hostility*—following participation in cheerleading activities, with *compulsion factors* exhibiting particularly significant disparities.

Table 5

Difference Test of Various Dimensions of Mental Health Level Before and After the Cheerleading Project Experiment

Effectiveness Factor	Pre-Test(X±S)	Post-Test(X±S)	T Value
Somatization	1.66±0.49	1.54±0.56	1.49
force	1.85±0.52	1.50±0.41	3.11**
interpersonal relationship	1.78±0.59	1.67±0.46	2.01*
depressed	1.73±0.55	1.58±0.62	2.05*
anxious	1.49±0.36	1.25±0.20	2.74*
hostile	1.50±0.39	1.29±0.28	2.33*
terror	1.36±0.39	1.33±0.35	0.45
Paranoia	1.65±0.57	1.62±0.53	1.71
Psychopathic	1.69±0.53	1.57±0.58	1.63
other	1.40±0.41	1.39±0.53	0.05
Total Average Score	1.38±0.35	1.17±0.27	2.75*

Discussion and Implications

Following the experiment, the disparity in mental health levels between the basketball and Taijiquan groups primarily stemmed from shifts in the integration of physical and mental elements, reflective of their respective competitive and introspective natures. Taijiquan, emphasizing self-awareness, exhibited notable efficacy in enhancing mental health compared to basketball, a

competitive sport emphasizing strength, awareness, cooperation, and resilience (Wang et al., 2021).

Pre-experiment, no distinctions were observed in mental health measures between the cheerleading and Taijiquan groups. However, post-experiment analysis revealed variations in the correlation between self-esteem and personality traits, favouring the cheerleading group in interpersonal relationships and self-esteem. Cheerleading, characterized by dynamic routines and a lively

environment, fosters self-confidence and communication, while Taijiquan, being more individualistic and less communicative, offers fewer opportunities for social interaction (Wang et al., 2021).

In the contemporary educational landscape, universities are urged to evolve teaching methodologies to align with students' characteristics, drawing upon diverse educational experiences domestically and abroad. Effective guidance in classrooms necessitates the incorporation of progressive ideas and cultural knowledge to deepen students' learning experiences. Additionally, educators must employ a variety of teaching approaches, integrating theoretical concepts with real-life examples to enhance students' understanding (Dashkina et al., 2022).

In education, a diversified and integrated approach is crucial, wherein educators understand contemporary students' characteristics and tailor teaching to their interests. Utilizing real-life events to illustrate abstract theories fosters consensus among students, promoting better learning outcomes. To achieve this, educators should adopt advanced concepts as guiding principles, mobilize students' learning enthusiasm, address learning obstacles, and update teaching methods to provide effective guidance (Dashkina et al., 2022).

Overall, while no significant differences in mental health dimensions were observed among the three exercise groups pre-experiment, post-experiment outcomes highlighted variations, particularly in interpersonal affinity. Notably, cheerleading demonstrated a distinct impact on mental health dimensions compared to basketball and Taijiquan, underscoring the variability in the magnitude of impact across different exercise modalities, especially in interpersonal affinity (Wang, 2021b).

Based on empirical findings, this investigation encompasses both theoretical and practical implications. Theoretically, it offers potential insights into the relationship between physical activity and mental health within the collegiate context. By scrutinizing the influence of curriculum ideology and politics, it affords a nuanced examination of how educational policies and practices may facilitate or impede the integration of physical education to bolster mental well-being. This understanding holds promise for educational scholars and researchers in devising comprehensive frameworks that not only acknowledge the physiological advantages of physical education but also its potential ramifications on mental health outcomes. Practically, the study holds considerable relevance for educational policymakers and practitioners. Grasping the impact of curriculum ideology and politics on physical education programs can inform decision-making processes concerning resource allocation, the design of efficacious interventions, and the adoption of evidence-based approaches.

By acknowledging the capacity of physical education to advance mental health among college students, policymakers can prioritize its inclusion in the curriculum and foster supportive environments conducive to student participation in physical activities and sports. Furthermore, collaboration between practitioners such as physical education instructors and mental health professionals can yield tailored programs addressing prevalent mental health challenges encountered by college students. Integrating this knowledge into educational practices has the potential to enhance students' overall well-being and cultivate a positive and holistic learning milieu that nurtures both physical and mental health. These deliberations underscore the pivotal role of physical education in enhancing mental health within the contexts of curriculum ideology and politics.

Conclusion

Post-experiment analysis revealed that disparities in mental health levels between the basketball and Taijiquan groups stemmed primarily from variances in the integration of physical and mental components. Basketball, a competitive endeavour emphasizing strength, awareness, cooperation, and resilience, demonstrated efficacy in alleviating anxiety and paranoia while fostering interpersonal harmony. In contrast, Taijiquan, an introspective discipline, notably ameliorated anxiety, terror, paranoia, and psychosis, particularly affecting paranoid tendencies. Cheerleading, characterized by dynamic physical routines, effectively mitigated anxiety, compulsion, depression, and hostility, with a pronounced impact on compulsive behaviours. These findings suggest that each exercise modality offers distinct benefits for college students' mental health, necessitating personalized program selection based on individual psychological profiles. Moreover, varying psychological needs across different periods advocate for tailored exercise regimens. Enhancing teaching hours for these sports in college physical education curricula is advised to equip students with self-exercise skills, thereby optimizing the utilization of their sports acumen and fostering improved overall health.

Limitations and Future Directions

While the study offers significant insights, it faces limitations. For instance, its experimental design to examine the impact of physical education on college students' mental health within curriculum ideology and politics context may encounter confounding variables. Despite attempts to control external factors, unaccounted variables like students' pre-existing mental health conditions or socio-economic

backgrounds could influence outcomes. Conducting experiments in educational settings also poses logistical challenges, such as limited control over intervention implementation across multiple institutions. Future research could address these limitations by adopting longitudinal designs, incorporating mixed-method approaches, and considering diverse cultural and socio-political contexts.

Additionally, exploring curriculum ideology and politics beyond experimental settings through observational studies or policy analyses could offer valuable insights. Furthermore, conducting research in different countries or comparative studies could elucidate variations in findings due to cultural and environmental dynamics.

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