

Analysis on the Role of Sports Game Teaching Method in College Students' Social and Mental Health

Hongke Zhong*

University of Baguio, Baguio 2600, Philippines

* Corresponding author: Hongke Zhong (Email: 515297846@qq.com)

Abstract: With the development of society and the progress of science and technology, the life style and learning environment of college students have undergone great changes. As an important way of recreation, sports games have a positive impact on college students' social and mental health. By using the methods of questionnaire survey and experiment design, this paper carries out the teaching method of sports games for one semester, and makes a comparative analysis of their social and mental health status before and after.

Keywords: Sports Game Teaching Method; College Students; Social and Mental Health; Self-confidence; Teamwork; A Positive Attitude.

1. Introduction

Research on the relationship between mental health and physical education is becoming more and more important. Participating in sports and physical activities improves social skills, emotional stability, and general mental health in addition to physical fitness. This study examines how teaching strategies centered around sports games affect college students' social and mental well-being in a variety of local, national, and international contexts. To ensure accuracy and relevancy, the data and information are taken from recent studies conducted within the last seven years.

The significance of incorporating sports and physical activities into educational curricula to support holistic development is being increasingly acknowledged on a global scale. As per a World Health Organization (WHO) report, physical activity has a crucial role in determining health and well-being. It has noteworthy effects on mental health, such as lowering feelings of anxiety and depression (WHO, 2021). Students who played sports were more likely to report higher levels of social integration and self-esteem.

The European Union's Work Plan for Sport 2017-2020 placed a strong emphasis on the educational and training benefits of sports, especially in terms of improving social inclusion and mental health. The strategy made clear how important it is to use sports games as a teaching tool to foster in pupils a sense of mutual respect, cooperation, and teamwork (European Commission, 2017).

The benefits of using sports games as a teaching tool for students' social and mental health are highlighted by recent evidence. Students who participated in regular physical activity, including sports, reported lower levels of depression (16.5%) compared to those who did not participate in any physical activity (28.7%), according to the American College Health Association's National College Health Assessment (ACHA-NCHA, 2020).

Furthermore, according to a survey by the mental health advocacy group Active Minds, 60% of college students said that playing sports or engaging in physical activity made a big difference in their mental health. The results of this poll also demonstrated the importance of athletics as a means of social contact and stress release, both of which are vital for mental

health.

The results of numerous studies demonstrate the vital significance that sports play in the lives of college students. While the physical advantages are widely established, the implications for social and mental well-being are just as significant. A organized approach to stress management, resilience building, and a sense of community are all facilitated by sports participation. The results show a strong link between playing sports and better mental health outcomes, such lower levels of anxiety and despair.

To maximize these advantages, more thorough research is necessary to determine how various sports game teaching techniques may be improved. The majority of the literature that is currently available concentrates on the overall advantages of sports, but there is a knowledge gap on the effects that particular teaching strategies, including cooperative learning and peer-led activities, have on students' social and mental health. By analyzing the various methods of teaching sports games and their unique effects on college students' well-being, this study seeks to close this gap.

It is impossible to exaggerate the contribution sports games teach strategies make to college students' social and mental well-being. The international, national, and local scenarios this paper presents show how widely acknowledged sports are as essential parts of education. Sports have a positive effect on mental health, as evidenced by recent data and research findings, which emphasizes the need for more research to improve instructional strategies. Sports are becoming an increasingly important part of college and university curricula, and it's important to know how to successfully modify these activities to assist students' holistic development.

1.1. Literature Review

Sports game teaching method is a method that takes games as the carrier, integrates teaching content into games, and realizes teaching objectives through game activities. It emphasizes students' active participation and experience, and focuses on cultivating students' teamwork ability, competitive consciousness and innovation ability. The application of sports game teaching method in college physical education is increasing gradually, and it has become an important means to improve students' physical and psychological quality.

1.2. Current Situation of College Students' Social Mental Health

In recent years, there are more and more researches on college students' social and mental health. The study found that college students generally have different degrees of psychological problems, such as anxiety, depression, loneliness and so on. These problems not only affect students' learning and quality of life, but also have a negative impact on their future development. Mental health education is an important part of "three whole education". In recent years, college students are facing increasing pressure from various aspects such as study, interpersonal, employment and emotion, and mental health problems in colleges and universities are becoming more and more serious. The article (2020) discusses the current mental health state of college students and the causes of psychological problems, and puts forward corresponding countermeasures, hoping to provide some help for college students to form a good "three views" and a positive, optimistic and sunny attitude.

1.3. The Relationship between Sports Game Teaching Method and Social Psychological Health

Studies have shown that the teaching method of sports games can effectively promote the development of college students' social and psychological health. On the one hand, sports games can enhance students' sense of teamwork and competition, and improve their social adaptability; On the other hand, sports games can also reduce students' psychological pressure, relieve anxiety and depression, and improve their mental toughness. In addition, sports games can also enrich students' extracurricular life, enhance the friendship between classmates, and promote their social skills. Ruan (2022) believes that sports games play an important role in physical education and are an effective means to complete teaching tasks and achieve teaching goals in modern physical education. Through the detailed analysis and elaboration of sports games, the significance of sports games in physical education is summarized, aiming to provide theoretical basis for related teaching practice, so as to better play the value and utility of sports games, serve for physical education, and continue to promote the deepening reform of school physical education.

2. Theoretical Framework

2.1. Psychological Quality

The study of psychological quality originated from the theory and practice of quality education proposed by the country in the 1980s. As an important part of individual quality, psychological quality has always received attention from educators and psychological researchers.

In the early stages of psychological quality research, researchers examined the concept of psychological quality from different perspectives, mainly including the following views: Zhang (1994) defined psychological quality as a true subjective reflection of social objective reality, which is formed on the basis of people's innate genetic qualities and developed through the influence of social environment and education after birth, with relative stability. Xiao (1999) pointed out that psychological quality is a comprehensive manifestation of a person's psychological content, involving personality traits, psychological motivation, psychological

ability, mental health status, and psychogenic behaviors, among other aspects; Liu (1999) believes that psychological quality is the comprehensive manifestation of an individual's personality psychological quality in practical life. Zhang (2000) proposed that psychological quality is based on physiological conditions, internalizing externally acquired things into stable, basic, derivative qualities closely related to human social adaptation behaviors and creative behaviors. Although no consensus has been reached, some researchers have summarized that past descriptions of psychological quality share the following commonalities: (1) Psychological quality is the result of the interplay of nature and nurture. Most researchers agree that psychological quality is based on physiological conditions and influenced by cultural environment after birth, working together to form it. (2) Psychological quality is a comprehensive psychological quality. That is, psychological quality is not a specific psychological indicator, but a comprehensive manifestation of various psychological abilities, qualities, and characteristics. (3) Psychological quality is connected with social life practice. Psychological quality is mainly manifested through an individual's adaptability in social life practice, that is, an individual's level of adaptation to social life practice reflects their level of psychological quality to a certain extent (Yang et al.2014). Psychological quality is expressed through an individual's behavioral responses in social life practice, especially through their adaptation and creative behaviors.

2.2. Sports Game Overview

Sports game is a branch of games, is a combination of "sports" and "games", with physical exercise as the main means, to promote physical and mental health as the main purpose, in the form of sports to innovate and develop a game activity, according to the needs of education and teaching, targeted creation, has a significant effect on sports classroom teaching. As a special form of physical activity, sports games are not only an effective tool for education and training, but also promote physical health, skill upgrading and psychological development, thereby enhancing social interaction, cultural understanding and lifelong learning. Reasonable design and effective implementation of sports games can play a huge value in the individual and social level.

According to Yao Weiguo's book Sports Games, sports games are an important part of school sports and an important part of physical education. The content of sports games is rich and varied, the form is lively, and the equipment requirements for the field are small, which is easy to develop and popularize. Sports games have a distinct interest, but also fitness and competition. With the help of sports games, students can quickly concentrate their attention and fully mobilize their learning enthusiasm. Sports games play a very good role in promoting students' physical and mental health and excellent moral quality. Under the overall environment of implementing the Outline of the National Fitness Program, sports games play a very good role in training students to develop good exercise habits and develop lifelong sports awareness.

2.3. Significance of the Study

The traditional physical education teaching method is more rigid in use, lack of innovative consciousness, it is difficult to improve students' physical quality level and social ideological health level. Through the study of the effect of sports games

on the social and mental health of college students, the use of sports games teaching method in physical education is conducive to improving students' psychological problems, promoting team cooperation and contributing to social communication. This paper compares and analyzes the physical and mental changes of students at the same stage using two different physical education teaching methods, and proves that sports game teaching method is more suitable for the introduction of college students' physical education classroom. At the same time, it also better meets the national physical quality standards for college students, and can shape and temper the character and will quality of college students. For college students facing the difficult period of double pressure of life and study, it can better relieve the pressure and enjoy the body and mind. Finally, this study can provide references for educators and researchers on how to improve the social and mental health of college students through sports games.

2.4. Objectives of the Study

The purpose of this study is to analyze the role of sports games in the healthy development of college students. Specifically, it seeks to answer the following objectives:

(1) Evaluate the role of traditional teaching and sports game teaching methods in promoting college students' social health along:

- A. Team cohesion
- B. Team cognition

(2) Assess the role of traditional teaching and sports game teaching methods on promoting college students' mental health along:

- A. Mood improvement
- B. Reduced stress

3. Methodology

3.1. Research Design

The design study used is descriptive. It assessed the agreement of students regarding traditional teaching methods and the use of sports games in promoting the psychological and social health of college students. One class was taught the traditional teaching method while the other class was taught using sports games. The independent variable is the method of teaching used while the dependent variable is the effect on the psychological and social health of college students as perceived by the participants.

3.2. Population of the Study

Participants were from the two classes taught by the researcher, each with 30 students. The participants are 18-20 years old and are currently participating in public physical education courses. These classes were heterogeneous in nature as it is made up of male and female students. The inclusion criteria were students who are at least 19 years of age, from public physical education programs, enrolled in the 2022 academic year, and assessed as healthy by university physicians. The exclusion criteria were students who are not allowed to participate in the study due to health reasons.

Sampling design is purposive because researchers need to identify participants who can and will provide the best information to achieve the study's objectives.

3.3. Data Gathering Tool

For the first Objective, the tool used was based on Evs et al

(2021) and Bourbousson et al (2019). The second objective's tool was patterned from Cherry (2022) and Cleaveland Clinic (2021). The questionnaire has two parts, first is the profile of the students while the second is the set of indicators measuring the objectives of the study. The tool underwent reliability test using cronbach's alpha.

3.4. Treatment of Data

For objective 1 and 2, mean and standard deviation were used to analyze the effect of traditional teaching and sports game method in the mental and social health of college students. Mean and standard deviation is a summary measure of the differences of each observation from the mean. The descriptive equivalent and verbal interpretation for the likert scale is shown:

Statistical limit	Descriptive Equivalent	Verbal Interpretation
1.00 – 1.75	Strongly disagree	Completely rejects the statement as true
1.76 – 2.50	Disagree	Does not accept the statement as true
2.51 – 3.25	Agree	Accepts the statement to be true
3.26 – 4.00	Strongly Agree	Fully agrees that the statement is true

3.5. Ethical Considerations

In this study, we respect the anonymity and voluntariness of each participant. We have set up a complete confidentiality mechanism to ensure that all data is stored and processed in an anonymous form. At the same time, we have formulated detailed risk management measures to fully guarantee the safety of participants, researchers, and auxiliary personnel. We selected participants using fair, non-discriminatory criteria, unless specific inclusion and exclusion criteria had a direct impact on the study. Research results will be disseminated in an open and impartial manner, ensuring that all potential beneficiaries have equitable access to our research results.

3.6. Results and Discussion

This section shows the data processing results of traditional PE teaching method and sports game teaching method on promoting social and mental health of college students.

Role of traditional teaching and sports game teaching methods in promoting college students' social health

A. Team Cohesion

The result in the table shows the agreement of students regarding teaching methods in the social health of students along team cohesion.

Data show that sports game teaching methods and traditional teaching methods significantly differ in terms of team cohesion, with the latter consistently producing superior mean scores across all parameters. In sports events, for example, participants strongly agreed that they could cooperate with others (Mean 3.60 vs. 3.02) and overcome difficulties (Mean 3.67 vs. 2.83). This suggests that the strategy promotes a more supportive and cooperative environment. Further demonstrating the value of sports in building teamwork and cohesiveness are the higher scores in individual performance improvement (Mean 3.43 vs. 2.90) and shared experiences (Mean 3.53 vs. 2.67) and sharing

space and equipment (Mean 3.50 vs. 2.90). These findings have ramifications for educational and training programs because they may strengthen team dynamics, improve individual contributions, and create a more cohesive group atmosphere, all of which can improve overall performance and satisfaction. The result of this research corroborates Besa (2021), showing that when compared to conventional

teaching techniques, sports education models greatly improve students' sense of teamwork. The results point to improved levels of social contact and collaboration among students participating in sports education, which is consistent with the higher means you saw in your results for the sports games teaching approach.

Table 1. Extent of Agreement of Teaching Methods in the Social Health of Students along Team Cohesion

Team Cohesion Indicators	Traditional Teaching Method			Sports Games Teaching Method		
	Mean	SD	Interpretation	Mean	SD	Interpretation
1.Work harmoniously with others	3.02	0.414	Agree	3.60	0.498	Strongly Agree
2.Overcome obstacles	2.83	0.461	Agree	3.67	0.479	Strongly Agree
3.Improve my individual performance	2.90	0.607	Agree	3.43	0.504	Strongly Agree
4.Train with the same coaches	2.67	0.547	Agree	3.53	0.571	Strongly Agree
5.Share the same space and equipment with teammates	2.90	0.662	Agree	3.50	0.777	Strongly Agree
Over-All Mean	2.87		Agree	3.55		Strongly Agree

B. Team cognition

Table 2. Extent of Agreement of Teaching Methods in the Social Health of Students along Team Cognition

Team Cognition Indicators	Traditional Teaching Method			Sports Games Teaching Method		
	Mean	SD	Interpretation	Mean	SD	Interpretation
1.Apply implicit coordination	2.97	0.669	Agree	3.60	0.498	Strongly Agree
2.Share my knowledge within the team	3.03	0.490	Agree	3.63	0.490	Strongly Agree
3.Execute team synergy	3.00	0.371	Agree	3.67	0.479	Strongly Agree
4.Attuned to local information	3.00	0.455	Agree	3.67	0.547	Strongly Agree

There are notable distinctions in the efficacy between traditional and sports game-based teaching approaches when analyzed within the framework of team cognition. According to the results, students who are taught via sports activities had better levels of agreement with different team cognition measures, including implicit cooperation and team cohesion. In the sports games technique, for example, the mean scores vary from 3.60 to 3.67, understood as "Strongly Agree," whereas the standard method scores between 2.97 and 3.03, regarded as "Agree." This implies that playing sports can improve implicit coordination and knowledge sharing among team members as well as overall team synergy. This suggests that teaching social health themes through experiential learning approaches may be more effective when sports games are involved. The overall mean score of 3.64 for sports games versus 3.00 for conventional techniques highlights how active, game-based learning environments can help students develop their team cognition.

These discoveries have a wide range of consequences. They emphasize how crucial it is to implement instructional strategies that actively encourage students to work in teams and collaborate, especially in social health-focused educational environments. Teachers can create a more dynamic learning atmosphere where students are encouraged to develop critical collaboration skills like coordination and communication by including sports games into the curriculum. This is consistent with the body of research that highlights how team cognition improves performance and decision-making in teams. Studies have indicated that proficient collaboration is not exclusively reliant on individual proficiencies but also on the capacity of team members to exchange and assimilate their understanding efficiently. Accordingly, studies on team cognition and its effects on organizational performance and learning outcomes highlight how important it may be to switch to more interactive teaching techniques in order to adequately prepare students

for collaborative issues that they may encounter in the real world (Bourbousson, 2019 & Alipour, 2022).

Influence of traditional teaching and sports game teaching methods on promoting college students' mental health

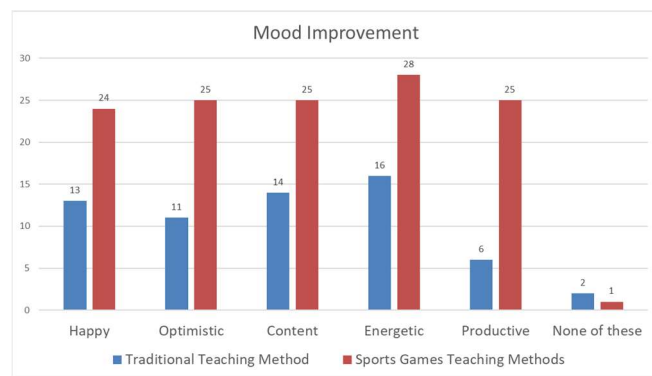


Figure 1. Influence of teaching methods in the mental health of students along Mood Improvement

Based on Figure 1, we can see that under the sports game teaching method, the number of students who feel happy is twice that of the traditional teaching method, suggesting that sports games can more effectively promote students' positive emotions. Both methods are on par in terms of optimism, indicating that traditional physical education teaching methods and sports game teaching methods have similar impacts on students' optimistic moods. In terms of satisfaction, the sports game teaching method is significantly better than the traditional teaching method, with students tending to feel more satisfied in a gaming environment. Under the sports game teaching method, 11 students felt energetic, reflecting the significant advantage of this teaching method in stimulating student vitality. The sports game teaching method is more successful in generating a sense of achievement

compared to the traditional teaching method, with students more willing to believe that the gaming environment helps them achieve a sense of accomplishment. Neither method had students choosing "none of the above," indicating that students experience some level of positive emotion in both teaching methods.

The physical education game teaching method has achieved relatively positive results in many aspects, especially in stimulating happiness, vitality, satisfaction, and a sense of achievement. Traditional teaching methods also have a positive impact in some aspects, particularly in fostering an optimistic mood. The comparison shows that, compared to traditional physical education teaching methods, the physical education game teaching method has a more positive impact on students' emotional experience and is more conducive to creating a positive and upward learning environment.

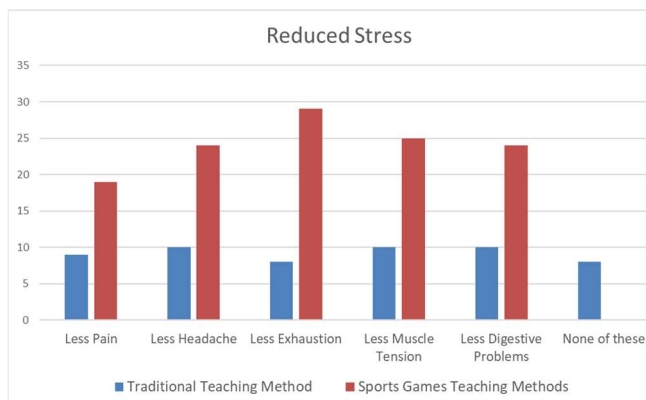


Figure 2. Influence of teaching methods in the mental health of students along Reduced Stress

Based on Figure 2, In terms of reducing the sensation of pain, the physical game teaching method is more popular among students than traditional teaching methods, and students tend to feel less physical pain in a game environment. The physical game teaching method also performs better in reducing the sensation of headaches, with students more recognizing the effect of reducing headaches during games. The physical game teaching method has achieved significant advantages in reducing the sensation of fatigue, with students feeling less physical fatigue during games. In terms of reducing muscle tension, the physical game teaching method is also more favored by students compared to traditional teaching methods, with students believing that they have reduced muscle tension during games. The physical game teaching method performs better in reducing digestive issues, with students feeling that they have alleviated related digestive problems during games. In terms of "none of the above," some students opt for traditional teaching methods, whereas no students choose physical educational game-based teaching methods, indicating that students experience fewer physical-related issues with the latter.

Physical educational game-based teaching methods achieve more positive outcomes than traditional teaching methods in alleviating pain, headaches, fatigue, muscle tension, and reducing digestive issues. While traditional teaching methods also have positive effects in some aspects, overall, physical educational game-based teaching methods are more effective in reducing students' physical discomfort. Students generally prefer physical educational game-based teaching methods, which reflects the significant advantage of

this method in promoting physical comfort.

4. Conclusion

4.1. Conclusion

1) The teaching method of sports games has had a significant positive impact on the team cohesion and team cognitive ability of college students' social health.

2) In terms of team cohesion, the teaching method of sports games has achieved more significant results in promoting students' collaborative work, overcoming difficulties, improving individual performance, training with the same coach, and sharing resources with teammates.

3) In terms of team cognitive ability, the teaching method of sports games can more effectively cultivate students' implicit coordination ability, knowledge sharing, collaborative execution of team work, and sensitivity to local information.

4.2. Recommendations

In the context of the results gathered in this research, the following are recommended:

Promotion of physical education game teaching methods: Physical education teachers may consider increasing the application of physical education game teaching methods to enhance students' team cohesion and cognitive abilities.

Teacher training: Provide relevant training for physical education teachers to better master and apply physical education game teaching methods, in order to achieve better teaching results.

Further research: Conduct more in-depth research to explore the long-term impact of physical education game teaching methods on students' social health, and carry out similar research in different grades and subject areas to obtain more comprehensive data.

Student participation: Encourage students to participate in decision-making, such as choosing the type of physical education course that suits them, in order to improve their satisfaction and participation with the teaching method.

Overall, the physical education game teaching method not only helps to promote students' physical health, but has also achieved significant positive effects in terms of team cohesion and cognitive ability. These findings provide strong support for the field of physical education, offering useful insights for improving teaching methods and enhancing students' level of social health.

References

- [1] Wen J. (2020). Current situation and countermeasures of college students' mental health. *Think Tank Times* (05),114-115.
- [2] Ruan,J.(2022). The importance of sports games in physical education. *New Sports* (20),90-92.
- [3] Sports Game[M]. People's Sports Publishing House, Yao Weiguo, 2012
- [4] Zhang Z,H. (1994). Psychological Quality and Development of Youth. *Youth Research*, 7, 30-32.
- [5] Xiao H,S. (1999). The Structure of Psychological Quality and Its Internal and External Relationships. *Chinese Journal of Education*, 4, 26-29
- [6] Liu H,S.(1999). Analysis of the Characteristics and Structure of Students' Psychological Quality. *Educational Research and Experiment*, 4, 52-53.

- [7] Yang Y.Y.et al(2014). A Review of Research on the Psychological Quality of Domestic College Students. Journal of Kunming University of Science and Technology(Social Sciences), 1, 87-93.
- [8] Ge C,L.(2024). The role of sports games in improving college students' social ability. Contemporary sports technology (21), 157-160.