

The Role of cultural identity in the relationship between physical exercise and psychological abnormality of college students from an Ideological and political perspective

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Abstract

This study aims to determine, from the ideological and political education perspective, the function of ethnic and cultural identity in the relationship between physical exercise and psychological abnormality. Multifactor variance is used to measure physical activity, ethnic, cultural identity, and psychological abnormality from the perspective of ideological and political education of college students. Results: The results indicate that the main effect of exercise cultural attributes is highly significant, $F=3.090$, $p<0.01$, whereas the interaction between exercise volume, exercise cultural attributes, and exercise volume is not significant. Enhancing ethnic and cultural identity can reduce the incidence of mental disorders. Important predictors of the severity of psychological abnormalities include the duration of physical activity and ethnic and cultural identity. Ideological and political education and mental health education are continuously expanding, and due to the incremental growth of quality education, specifics have changed gradually.

Keywords: physical exercise; ethnic, cultural identity; psychological abnormality; ideological and political education

1. Introduction

Improving college students' fundamental qualities has always been the subject of extensive research in college teaching. Physical education is a fundamental college education component, and health education is the foundation of the concept's college instruction. Physical and health education in colleges and universities play a significant role in improving college students' core qualities, stimulating their interest in sports and cultivating their health behavior, and teaching them excellent physical character (Jensen & Cross, 2021). Physical education in colleges and universities promotes the development of college students' comprehensive quality to establish a final body education philosophy, paying attention to moral, intellectual, physical, beauty, and labor development (Shang, Xie, & Yang, 2021). Research on the role of physical education and health education in enhancing the core qualities of college students, based on current problems in physical education and health education of college students, proposes the reform of physical education teaching in colleges and universities, the incorporation of health education into college physical education classrooms, and the establishment of a conclusion for college physical education.

The objective of the physical education concept is to facilitate the development of physical education and health education in colleges and universities and to serve as a guide for enhancing the fundamental fitness of college

students (Hershner et al., 2021). A CNKI search for the keywords "ideological politics" and "mental health" returned 2,193 results after 2,334 searches for "Education" and "mental health" Although "ideological and political education," "mental health education," and "combination" were used in the search, the results were ultimately lacking. Admittedly, only a few historians have combined primary ideological and political education and mental health education with specific paths and methods (Coughenour et al., 2021). Capable of achieving rigorous academic growth In addition to the industry in China, master, and erudite papers are also in short supply, and the number of core journals is limited. There are no domestically available research-related monographs on the customized theory of college students' mental health education and ideological and political education combined. The field of observation and research on the combination of mental health education and ideological and political education of college students is in its infancy, and researchers still need to elevate and supplement our investigation (Younes, Hallit, & Obeid, 2021).

The National Conference on Ideological and Political Work in Colleges and Universities "insists on making moral education the central link, running ideological and political work through the entire process of education and teaching, and realizing the entire process of educating people in all aspects" which establishes the concept of large ideological and political work and indicates the direction for the reform and development of higher education. The

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management of college students is an integral part of colleges and universities education and teaching work and is closely tied to holistic and healthy development (Coakley et al., 2021). In addition, its management content encompasses all aspects of students' research and school life, and the management time spans from when college students enroll in colleges and universities until they depart. The integration of political education into the management work of college students can not only improve the education effect of college students' management work but also have positive implications for realizing the whole-person, whole-process, and comprehensive education of college ideological and political education (Cordeiro et al., 2022). Therefore, in the new era, higher education should pay more attention to the implementation of the concept of large political thinking, pay more attention to the management of college students to keep up with the times and continue to promote the integration of political thinking education and the management of college students from the perspective of large political thinking.

The core quality is the essential character and key skill that students should possess to meet lifelong and social development requirements, emphasizing personal cultivation, social care, and national family conditions (Romano et al., 2022). Independent development, cooperation and participation, and innovative practice must receive more consideration. From a value orientation standpoint, it reflects the qualities necessary for students' lifelong learning and societally recognized values. It is non-returnable, formable, durable, and obtainable through education. Physical education's central objective is teaching and engaging students in physical activity. It enables students to master and form the emotions and character of the sport, the sport's ability and habits, and the health knowledge and behavior required for the overall development of enduring sports (Tavolacci, Ladner, & Dechelotte, 2021). This conceptual chart Reforming the PE curriculum in China should always aim to strengthen students in all aspects of quality. The Guidelines for Ideological and Political Construction of Higher Education Courses, May 2020 "Yao" (from now on referred to as "Outline") indicates that the ideological and political construction of the curriculum is to help students shape the right world by combining values with knowledge imparting and ability cultivation outlook, outlook on life, and values; this is the correct meaning and essential content of talent training. In addition, the outline indicates that college students' ideological and political education should be bolstered and that all disciplines should be investigated. In addition, the education's ideological and political education function will be implemented

throughout the entire teaching process, promoting the curriculum's ideological and political integration into the teaching of various disciplines, as well as professional teaching, enhancing the students' comprehensive ability and quality, and fostering talent. Training quality has also become a focus of attention in universities and colleges. The unique function of the physical education curriculum is to educate people.

2. Literature Review

The accelerated development of contemporary society has increased the daily stressful events college students face. According to Orozco et al. (2021), when individuals are confronted with stressful events that exceed their coping capacity or generate negative evaluations, they experience stress and an increase in negative emotions, which is a significant contributor to psychological issues among college students. In order to promote the physical and mental health of college students, it is a crucial area of study to develop effective techniques for regulating their responses to psychological duress and negative emotions. The scientific concept of healthy development should include the three levels of extended meaning listed below. It is the healthy body's flexibility; its primary source comprises the body and organs and other physiological aspects of health, body-related functions are normal, and a positive outlook on life exists. The second is a healthy psychological bear force, the reason for which includes personality traits and individual moral sentiments, objective understanding, good emotions, and strong will sexual physiology and psychology, as well as individual moral personality cultivation with the differentiation between good and evil, true and false, beauty and ugliness, honor and shame, and other moral concepts (Romano et al., 2022). Third and final is the health of the two aspects of family and social relations, including social adaptability and people's association with society. They can adapt to the social environment according to the social norms with a certain system of principles, can freely control their behavior, and is better equipped to deal with interpersonal relationships and relationships between people. A healthy and stable mental state is just as essential as a healthy and strong physical body.

Cultural identity is the cognitive and emotional attachment of members of distinct cultural communities to the culture to which they belong and to other cultures, as well as the acquisition of belonging and beliefs to preserve and innovate their cultures (Jensen & Cross, 2021). Mainstream Cultural Identity (MCI) and Ethnic Cultural Identity (ECI) are determined to be the two components of cultural

identity. Moreover, both have equal survivability. Therefore, cultural identity involves the individual's integration and harmony with the national culture and the dominant culture, and the process is accompanied by corresponding conflicts and pressures, which promote the socialization of the individual and motivate the individual to actively adjust cultural values, attitudes, cognition, and behavior to facilitate the integration and harmony of different cultures (Ji & Yang, 2021). In this regard, Lyu, Hou, and Wang (2022) explained that cultural conflict, particularly in occupational and psychological stress, is one of the primary causes of conflict and stress felt by different ethnic groups/nationalities in the same social scenario. Then, how do ethnic and mainstream cultural identities influence Career Maturity (CM), which measures the characteristics and development level of career psychological development during the process of national culture and mainstream culture integration?

To reduce occupational and psychological stress and conflict among college students and promote occupational psychology's healthy development, it is necessary to investigate the connection between ethnic and cultural identity and occupational maturity and its psychological mechanism (Agbaria & Bdier, 2021). Its purpose is to support the teaching and practice of ethnic culture in colleges and universities, particularly in ethnic regions. According to research in mental health, physical exercise as a method of regulation is sensitive to the effects of individual emotions. Short- and long-term exercise can relieve negative emotional states resulting from psychological tension. In experimental research, a meta-analysis on the effect of stressors on mood revealed that when subjects responded to stressors, their negative emotions also increased. In an experiment conducted with college students using jogging and stepping, Frederiksen et al. (2021) found that 30 minutes of aerobic exercise reduced negative emotions. In research on the effects of aerobic exercise on mood, Lundeberg (2007) found that negative mood decreased between 6 and 20 minutes of exercise and between 1 and 15 minutes after exercise when participants completed 30 minutes of running or walking at their tempo on a running platform.

Some researchers categorize emotions according to their subject of study. Some Chinese academics have divided emotions into two classes. Positive emotions, such as pleasure, excitement, and love, are frequently accompanied by joyful experiences. The first category consists of negative emotions, which are frequently accompanied by stressful reactions, excruciating expressions, and unpleasant experiences, such as regret, anxiety, etc. Dos Santos et al. (2021) categorized emotions along three dimensions:

joyful and sad, excited and calm, and tense and relaxed. Most researchers in the field of psychology categorize emotions as either positive or negative. This study's negative emotions were derived from the two-level classification of emotions. Vaara, Tienari, and Koveshnikov (2021) demonstrated that physical exercise improved physical fitness and assisted individuals in coping with psychological tension and adjusting to stressful situations. It has also been demonstrated that high-stress individuals who engage in running training have a much greater ability to acclimate to stress than those who do not exercise; therefore, exercise is beneficial for reducing chronic stress. According to research conducted by Chinese scholars on athletic and non-athletic college students, non-athletic college students tended to experience higher levels of psychological stress, whereas athletic college students experienced significantly reduced levels of psychological stress. dos Santos and Pereira (2021) analyzed college students' mental health and psychological stress status. They concluded that the manner, frequency, and timing of physical exercise influence psychological stress to a certain extent and that regular exercise three or more times per week is the most effective way to reduce stress.

According to Bleibleh and Awad (2020), aerobic exercise reduces psychological tension and increased motivation among college students. Settimini (2021) research demonstrates that various forms of exercise on psychological stress relief vary, that prolonged aerobic exercise interventions positively affect stress reduction, and that these effects become more pronounced over time. In a survey of 263 adolescents, Huber and Kitson (2020) discovered a positive correlation between cultural identity and mental health. On the other hand, sports are a means of expressing cultural identity, and various ethnic groups and regions have distinct sports cultures that contribute to individuals' health, mindfulness, and education. In the existing research on physical exercise and psychological abnormalities, however, the function of ethnic and cultural identity has been ignored. Ethnic and cultural identity can influence these two research variables, so research on the relationship between physical exercise and psychological abnormality that disregards ethnic and cultural identity must necessarily be ambiguous. Some scholars have studied the moral behavior of high school athletes in sports and believe that participation in sports should foster self-esteem and reverence for the values of others in the specific competitive environment.

In addition, sports morality should be associated with the following values: respect for oneself, respect for the self-esteem of others, cooperation, discipline, loyalty, responsibility heart, tolerance, honesty, integrity, calm

pride, calmness, humility, etc. Physical education class is the main battleground for students to acquire sports experience and develop sports ethics (Gao et al., 2022). In the physical education curriculum, we must firmly grasp the classroom routine and teaching implementation, seize the good opportunity of habit formation in the teaching process, and introduce ideological and political elements and learning. Students' continued participation in sports and cultivating their athletics' moral character are necessary to develop good sportsmanship. Physical education is cultivating individuals at the intersection of ideological and political curriculum education and cultivation. This study aims to determine the function of ethnic and cultural identity in the association between physical activity and psychological abnormality. Based on previous research, it is hypothesized that the duration of ethnic traditional physical exercise is inversely related to psychological abnormality. The second hypothesis states that ethnic and cultural identity is correlated negatively with psychological abnormality. The duration of ethnic physical exercise and ethnic and cultural identity are hypothesized to be significant predictors of psychological abnormality. The final hypothesis is that ethnic and cultural identity mediates the relationship between physical exercise and psychological abnormality.

3. Methodology

3.1 Research subjects

The ideological and political education steps for college students primarily include theory instruction, practical education, criticism, self-criticism, etc. Middle school students have numerous opportunities to appreciate both practical and theoretical learning. Implementers of ideological and political education will employ more methods with the most apparent effect, which is also one of these methods. There are typically activity education methods, typical education methods, comparative education methods, and special methods in practical education. Colleges and universities commonly employ the theory teaching method, the practical education method, the psychological counseling method, and so on. In mental health education, common methods include the series activity method, the hardening education method, and the example demonstration method. In the practice of psychological counseling, common methods include the psychological counseling method, environmental excellence, the method of transformation, and experienced guidance, among others. There are numerous instructional strategies for college students' ideological and political education and mental health education. For instance,

supplementary methods such as the theoretical education method, the practical education method, and the conventional education method can be used to address the actual problems of college students. The study of cognitive behavior is important to the mental health and education of college students, which typically employs experimental, observational, and investigative methods.

The subjects are 93 randomly selected sophomores, consisting of 41 males and 52 females ($M=19.6$, $SD=1.3$). These students have completed four semesters of college-level physical education and are distributed randomly among numerous natural classes. As depicted in Figure 1.



Figure 1. Basic information of valid sample (N=93)

3.2 Measurement Process and measurement tools

There are differences between ideological and political education methodologies and mental health education, which provide a different perspective on the ideological, political, and psychological development of college students. The relationship between health education and inclusivity is not mutually beneficial. One is that instructors cannot use multiple strategies to complete their assignments. Eighty percent of educational methodologies are theoretical, also called "indoctrination". A teacher's responsibility is to contact students in their education's real life or other classic cases to help them comprehend emotion, move reason, and convey a particular way of thinking. In addition, this change method has some benefits, but it is still prevalent among the educated and makes it difficult to produce immediate improvement. To assist students in comprehending China, a good teacher must choose from various instructional techniques, such as practice drills, that provide a genuine education in general. Even department majors can establish a practice base and ensure its routine and systematization, avoiding the rabbit "dragonfly water" type of children's education so that students from various practice activities enlighten the perception of life, thereby influencing the psychology of educators. Based on sentiment and identity, ideological and political education can be attained.

Before conducting the research, consent was sought from the participants, and the questionnaire was completed in the third week preceding the second-semester final exam.

Physical exercise rating scale, ethnic, cultural identity, and psychological abnormality are the measures. Physical exercise rating was measured using the Physical Exercise Rating Scale, a self-administered questionnaire with four entries: time spent participating in ethnic traditional physical exercise, exercise intensity, time per exercise, and several exercises per week. The score for physical exercise equals intensity (duration - 1) frequency, with scores ranging from 1 to 5 for each factor. The retest reliability of the scale is 0.82. In addition, the time spent participating in traditional ethnic sports is divided into five distinct levels: 1 student did not participate; 2 students participated for 1 semester; 3 students participated for 2 semesters; 4 students participated for 3 semesters; and 5 students participated for 4 semesters. Developed by Baranov et al. (2020), the 27-item Ethnic Identity Questionnaire is used to measure ethnic and cultural identity. The questionnaire is graded on a 6-point Richter scale (1 out of 10 non-conformities 6 out of 10 conformity), and the responses are in the form of declarative sentences. This questionnaire's alpha coefficient is 0.9172, and the subscale Cronbach's alpha coefficients for the four dimensions are 0.8671 for effect, 0.8581 for evaluation, 0.7817 for cognition, and 0.7167 for behavior. Consequently, the questionnaire's reliability for measuring psychological abnormalities is adequate. Group tests are conducted with the revised SCL-90 by van Benthum et al. (2022), which incorporates dimensions of somatization, obsessive-compulsive symptoms, interpersonal sensitivity, depression, hostility, phobia, paranoia, and psychosis. In studies with Chinese college students as subjects, Cronbach's alpha coefficient of the scale ranges between 0.6346 and 0.85, indicating an acceptable level of reliability.

Most do not value knowledge of ethics, sociology, law, and other social disciplines, particularly psychology. These modalities of educational operation are distinct from one another. This study investigates the characteristics, norms, and psychological motivations of college students' development and

behavior. To guide the students with a new experience, feeling, and perception, combined with the pertinent knowledge of psychology, students will be able to acquire knowledge and experience into a personal, humanistic quality, improve their adaptability to a fast-paced social life, and take the initiative to develop their self-worth. It investigates the model of excellent material, which promotes the role of mental health culture education in the ideological and political education of college students to a substantial degree.

3.3 Career self-efficacy scale for college students

The scale was devised by Cai et al. (2020) and consisted of 22 questions covering five dimensions: future expectations, self-evaluation, self-control, overcoming obstacles, and confidence in ability. The scale is a five-point Likert scale, ranging from 1 to 5 on a scale from "not at all" to "completely." The greater the aggregate of each dimension's scores, the greater an individual's self-efficacy in that dimension. Internal consistency coefficients for each dimension range from 0.58 to 0.80. The retest reliability ranges from 0.78 to 0.91 for the total scale and each subscale. The measures' structural and content validity is high. This measurement has an internal consistency coefficient of 0.87 and a split-half reliability coefficient of 0.82.

4. Results and Discussion

4.1 Descriptive Statistics of research variables

According to Table 1, the gender differences in scores for mainstream cultural identity, ethnic, cultural identity, and career self-efficacy are statistically significant (all $p < 0.01$). It demonstrates that male students' scores for conventional cultural identity are significantly lower than those of female students, while female students' scores for ethnic and cultural identity are significantly lower than those of male students. In addition, male students have substantially higher career self-efficacy scores than female students. According to Table 1, there are significant ethnic differences between the scores of college students' conventional cultural identity and ethnic and cultural identity (both $p < 0.01$).

Table 1

Descriptive statistics of research variables and comparison of gender and ethnic differences (n=93)

		Mainstream Cultural Identity	Ethnic Cultural Identity
Gender	Overall	4.21±0.45	3.68±0.51
	Male	4.18±0.50	3.71±0.53
	Female	4.22±0.43	3.67±0.49
	T	-2.48**	2.48**
Ethnicity	Han Chinese	4.22±0.45	3.63±0.48
	Ethnic Minorities	4.18±0.44	3.76±0.53
	T	3.04**	-7.81***

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Same below.

4.2 Correlation of cultural identity and career self-efficacy of college students

Both conventional cultural identity and career self-efficacy have significant positive correlations (all $p < 0.001$), according to a correlation analysis of the variables. In addition, ethnic, cultural identity, and career self-efficacy exhibit significant positive correlations (all $p < 0.001$). Lastly, significant positive

correlations exist between career self-efficacy and maturity ($p < 0.001$). Refer to [Table 2](#).

4.3 Correlation between ethnic traditional physical exercise, ethnic, cultural identity, and psychological abnormality

The correlation between ethnic traditional sports exercise time, ethnic, cultural identity, and psychological abnormality is calculated using Pearson correlation (one-tailed), and the results are presented in [Table 3](#).

Table 2

Correlation Analysis of cultural identity and career self-efficacy of college students

	Mainstream Cultural Identity	Ethnic Cultural Identity	Career Self-efficacy
Mainstream Cultural Identity	1		
Ethnic Cultural Identity	0.53***	1	
Career Self-efficacy	0.28***	0.25***	1

Table 3

Correlation between ethnic traditional physical Exercise, ethnic, cultural identity, and psychological Abnormality

	1	2	3	4	5	6	7	8	9	10	11	12
1 Popular Biography		0.40**	0.26**	-0.23*	-0.25**	-0.21*	-0.36**	-0.23*	-0.24**	-0.04	-0.22*	-0.38**
2 Identify			-0.43**	-0.28**	-0.41**	-0.26**	-0.37**	-0.37**	-0.39**	-0.42**	-0.18*	-0.58**
3 Somatization				0.22*	0.34**	0.27**	0.39**	0.52**	0.43*	0.30**	0.30**	0.70**
4 Coercion					0.22*	0.22*	0.30**	0.33**	0.28**	0.15	0.18*	0.53**
5 Interpersonal sensitivity						0.36**	0.40**	0.25**	0.30**	0.45**	0.33**	0.68**
6 Depression							0.16	0.14	0.15	0.25**	0.22*	0.50**
7 Anxiety								0.32**	0.31**	0.143	0.30**	0.64**
8 Hostility									0.39**	0.26**	0.23**	0.63**
9 Terror										0.21*	0.10	0.62**
10 Paranoia											0.20*	0.55**
11 Mental illness												0.53**
12 Total score												

$p < 0.05^*$, $p < 0.01^{**}$

According to [Table 3](#), the duration of ethnic traditional sports participation is significantly and positively related to ethnic and cultural identity ($r=0.40$, $p < 0.01^{**}$), indicating that the longer the time spent participating in ethnic traditional sports, the stronger his sense of ethnic and cultural identity. Except for the insignificant correlation between exercise time and paranoia, all other dimensions of exercise time are substantially and negatively correlated with psychological abnormality, indicating that the longer the exercise time, the less pronounced the manifestation of psychologically abnormal behavior. Significantly and negatively correlated with the total score of psychological abnormality, and each subscale is ethnic and cultural identity. Thus, the lower the psychological abnormality score, the higher the ethnic-cultural identity score.

4.4 Prediction of psychological abnormalities

[Table 4](#) displays the results of a stratified regression analysis used to predict the main and interaction effects of traditional ethnic physical exercise and ethnic and cultural identity in the presence of psychological abnormalities.

Table 4

Prediction of psychological abnormalities

	R2	R2 Δ	dfs	FΔ	B	T
Step 1	0.146	0.146	1,9	15.556**	-0.382	-0.3944**
Step 2	0.361	0.215	1,90	30.193**	-0.506	-5.495**
Step 3	0.392	0.031	1, 89	4.545*	-0.513	-2.132*

$p < 0.05^*$, $p < 0.01^{**}$

[Table 4](#) shows that in the first step, the time of traditional ethnic physical exercise is used as the predictor variable of

psychological abnormality, and the regression coefficient is significant ($\beta=-0.382^{**}$). It indicates that the time of exercise can effectively predict the change of psychological abnormality. In the second step, ethnic and cultural identity is used as a predictor variable in the regression equation, and the regression equation holds ($R^2 \Delta=0.215^{**}$). This indicates that traditional ethnic sports exercise time and ethnic and cultural identity significantly predict psychological abnormalities. In the third step, the interaction variable of exercise time and cultural identity is put into the regression equation, and the regression equation is ($R^2 \Delta=0.031^*$). Finally, it indicates that the interaction effect of exercise time and cultural identity on mental health is significant.

4.5 The Role of Ethnic, cultural Identity in the relationship between ethnic physical exercise time and psychological abnormalities

The relationship between cultural attributes of physical exercise and psychological abnormalities is investigated using multifactor ANOVA. The findings indicate that the primary effect of cultural exercise attributes is highly significant, $F=3,090$, $p<0.01$. While neither the quantity of exercise nor the interaction between the cultural characteristics of exercise and the amount of exercise reaches statistical significance, both variables are of interest. Multivariate analysis of covariance (MANCOVA) is used to control for cultural identity to determine if cultural identity plays a role in the relationship between exercise cultural attributes and psychological abnormalities; the results indicate that $F=2.190$ and $p<0.05$.

5. Conclusion

The goals of college physical education and health education are to improve students with different physical health conditions, provide a healthy and happy university environment, and prioritize college students' health to enhance the quality of college students' study and life and ensure their healthy development. Physical education and health education in colleges and universities have stimulated and nurtured college students' interest in physical education. The healthy physical behavior of college students teaches them good physical morality and provides a solid foundation for developing physical education and health's fundamental quality. College Physical education and health education are rooted in college education; they are not only one of the core components of college education but also the foundation for its long-term growth. In the future development of college physical education, college physical education

adheres to the concept of cultivating virtues and cultivating people, takes cultivating students' interests as the guiding principle, reforms physical education teaching comprehensively, and takes improving the core quality of college students as the primary objective to promote students' overall development. A college education is responsible for preparing communist society's future leaders. For China to cultivate a generation of young people with aspirations for healthy physical and mental development, it is the people's responsibility and the state's duty to ensure the implementation of higher education. This study tests four hypotheses to determine whether ethnic and cultural identity mediates physical exercise and psychological abnormality. (1) An increase in the duration of ethnic traditional physical exercise reduces the incidence of psychological abnormalities; (2) an increase in ethnic and cultural identity reduces the incidence of psychological abnormalities; (3) the duration of ethnic physical exercise and ethnic, cultural identity are significant predictors of the level of psychological abnormalities; and (4) ethnic, cultural identity mediates the effect of physical exercise.

The onset of the new era has altered the general social environment and heightened the conflict between competing values in Chinese ideological education. In this context, the traditional management model for college students can no longer satisfy the current realistic needs of students for college management, nor can it meet the new requirements for higher education teaching reform brought about by the progression of time. Consequently, in this study, the path of promoting the integration of ideological education and college students based on the perspective of large ideology is proposed in the hope that colleges and universities can seize the development opportunities brought about by the unprecedented changes in the world over the past century, explore the educational concepts and education methods to deepen the integration of ideological education and college students' management and to provide college students with a more comprehensive ideological education. This study aims to identify the correlation between exercise time and psychological abnormalities in traditional ethnic sports. This study's findings regarding the relationship between exercise duration and psychological abnormality are consistent with previous studies' findings. Thus, the longer an individual engages in traditional ethnic sports, the lower their psychological abnormality.

The longer college students participate in traditional ethnic athletics, the more their negative psychological indicators are alleviated, and their psychological health is enhanced. It should be noted that college students engage in traditional ethnic athletics programs. In this study, it is

demonstrated that the teachers of Lishui College have developed physical exercise programs employing scientific methods and incorporating ethnic elements, rather than simply offering ethnic traditional physical education classes directly extracted from folklore, and that the teaching contents are designed with full consideration of exercise load, exercise volume, and the role of certain psychological factors. The author disagrees with some Chinese scholars who believe that college students know little about this traditional ethnic sports program and participate little in it and attribute the lack of inclusion of this program in daily instruction to school facilities and teachers' abilities, etc. In addition, the study has demonstrated that traditional ethnic activities are becoming less influential on students' physical fitness. In this study, participants receive substantial mental health benefits from traditional ethnic sports with minimal effort. The problem is not caused by the expenditure of funds and locations but rather by the excavation and reflection of traditional ethnic programs. This study's second objective is to identify a negative correlation between ethnic and cultural identity and psychological abnormalities. Consistent with the findings of other researchers, the correlation between the score of ethnic and cultural identity and the total score of psychological abnormality and each subscale is statistically significant. Increasing ethnic and cultural identity can reduce psychological abnormalities among college students, enhancing their psychological health. Cai et al. (2020) applied Berry's ethnic and cultural identity model to 2623 adolescents and demonstrated that an increase in ethnic and cultural identity could reduce the prevalence of psychological abnormalities among adolescents.

6. Implications and Future Directions

This research has novel theoretical and practical ramifications that are new to the body of knowledge. According to the study, it is necessary to give more attention to the development of the ethnic and cultural identities of students, which can effectively improve their psychological health. Consequently, social identity is a significant mediator in the structure of psychological well-being, according to the findings of this study. In addition, this study demonstrated that increased time spent on ethnic physical exercise and ethnic and cultural identity effectively reduces the incidence of psychological abnormalities, as described in the literature and supported by previous studies. In addition, the current study confirmed that the interaction between time spent engaging in ethnic physical exercise and ethnic and

cultural identity is also highly predictive. This study contributed to the literature by demonstrating that an increase in the duration of ethnic physical exercise enhances cultural identity and reduces psychological abnormalities. Second, these findings revealed that a reduction in the duration of ethnic physical exercise diminishes cultural identity and exacerbates psychological abnormalities. This study demonstrated, thirdly, that an increase in the duration of ethnic physical exercise diminishes ethnic and cultural identity and exacerbates psychological abnormalities. Significantly, this study concluded that a reduction in the duration of ethnic physical exercise enhances ethnic and cultural identity and reduces psychological abnormalities.

After controlling for ethnic and cultural identity, the efficacy of the effect of physical exercise on psychological abnormalities decreases, as statistically confirmed by this study. Although the results of the covariance analysis indicate that it is still significant, there is a very significant decrease before ethnic-cultural identity is controlled for. Thus, the study concluded that ethnic and cultural identity mediates the association between physical exercise and psychological abnormalities. Foreign researchers have primarily used ethnic identity theory to explain the different situations of minority participation in physical exercise and the role of physical exercise in integrating minority populations into society. Currently, there is relatively little research in this area in China.

In contrast, Chinese research is unsystematic and theoretically unguided, focusing primarily on examining the current state of minority sports with less in-depth analysis. Some foreign scholars have also suggested that future research on ethnicity and physical exercise should develop complex psychological models and conduct more systematic research by validating and revising the models, which is in line with the purpose of this study. Future research in China can utilize this suggestion by combining existing foreign theories with Chinese characteristics to create a complex design, thereby investigating the role of ethnic and cultural identity in the model of physical exercise for mental health.

Nevertheless, this study has contributed important findings to the body of knowledge. In addition, the neglect of ethnic and cultural identity has led to an overemphasis on the effects of physical exercise duration, frequency, and burden on mental health in previous studies. Even though certain results have been obtained, an efficient method has been overlooked. As a valuable asset of China, traditional ethnic sports have not been consistently highlighted in empirical research on the promotion of mental health, and there is scant quantitative research on their health benefits and

even less research on the theoretical mechanisms by which they promote mental health. In addition, ignoring this will undoubtedly hinder research into the relationship between physical exercise and mental health.

Consequently, research on the relationship between physical exercise and mental health, considering the mediating role of ethnic and cultural identity, will provide a reference for enhancing mental health benefits and theoretical support for promoting traditional ethnic sports. Understanding students' health behavior regarding their health activities and health improvement will necessitate future research. In the meantime, future research should examine students' psychological well-being in the context of their health attitude. Future empirical research should continue to investigate this connection. In this

investigation of ethnic and cultural identity, the subjects' cognitive abilities are disregarded. Cognitive ability substantially affects the perceived degree of cultural identity, and the level of cognitive ability impacts the exploratory potential of subject-variable interactions. Thus, future research should integrate cognitive ability in its follow-up studies.

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