

SONG, Peng, WANG, Shaojie, JIANG, Bo and ZHAO, Lunan. Ecocultural Perspectives On Mental Well-being and Self-harmony Among Sports Science Students. *Quality in Sport*. 2025;38:57939. eISSN 2450-3118.

<https://doi.org/10.12775/QS.2025.38.57939>

<https://apcz.umk.pl/QS/article/view/57939>

The journal has been 20 points in the Ministry of Higher Education and Science of Poland parametric evaluation. Annex to the announcement of the Minister of Higher Education and Science of 05.01.2024. No. 32553.

Has a Journal's Unique Identifier: 201398. Scientific disciplines assigned: Economics and finance (Field of social sciences); Management and Quality Sciences (Field of social sciences).

Punkty Ministerialne z 2019 - aktualny rok 20 punktów. Załącznik do komunikatu Ministra Szkolnictwa Wyższego i Nauki z dnia 05.01.2024 r. Lp. 32553. Posiada Unikatowy Identyfikator Czasopisma: 201398.

Przypisane dyscypliny naukowe: Ekonomia i finanse (Dziedzina nauk społecznych); Nauki o zarządzaniu i jakości (Dziedzina nauk społecznych).

© The Authors 2025;

This article is published with open access at Licensee Open Journal Systems of Nicolaus Copernicus University in Torun, Poland

Open Access. This article is distributed under the terms of the Creative Commons Attribution Noncommercial License which permits any noncommercial use, distribution, and reproduction in any medium, provided the original author (s) and source are credited. This is an open access article licensed under the terms of the Creative Commons Attribution Non commercial license Share alike. (<http://creativecommons.org/licenses/by-nc-sa/4.0/>) which permits unrestricted, non commercial use, distribution and reproduction in any medium, provided the work is properly cited.

The authors declare that there is no conflict of interests regarding the publication of this paper.

Received: 19.01.2025. Revised: 05.02.2025. Accepted: 05.02.2025. Published: 05.02.2025.

Ecocultural Perspectives On Mental Well-being and Self-harmony Among Sports Science Students

Peng Song ^{1,2}, Shaojie Wang ¹, Bo Jiang ^{3*}, Lunan Zhao ^{2*}

Peng Song

1. School of Physical Education, Southwest University, Chongqing, China

2. Institute of Sports Science and Physical Education, Qufu Normal University, Shandong, China

366020170@qq.com ORCID: 0009-0007-2809-2305

Shaojie Wang

1. School of Physical Education, Southwest University, Chongqing, China

17623073462@163.com ORCID: 0009-0005-5083-581X

Bo Jiang

**3.School Physical Education Development Institute , Southwest University,
Chongqing, China**

jbo@swu.edu.cn ORCID: 0000-0001-6896-0233

***Corresponding Author**

Lunan Zhao

**2. Institute of Sports Science and Physical Education, Qufu Normal University,
Shandong, China**

734259126@qq.com ORCID: 0009-0002-8050-5617

***Corresponding Author**

Fund Project:Supported by“A research project on Southwest University Education and teaching reform”Project No:2023JY077.

Abstract

Drawing on Rogers' humanistic psychology framework, this study explores the interplay between self-harmony and mental health among sports majors. For college students majoring in physical education, this theory serves as a significant reference for maintaining their mental well-being. This research delves into the relationship between the mental health status and self - harmony of physical education majors. By doing so, it aims to offer novel perspectives for the psychological health education and counseling tailored to this specific group of students. A random sampling approach was adopted to recruit physical education majors. Participants completed two validated instruments: the Symptom Checklist 90 (SCL-90) for assessing mental health symptoms, and the Self-Harmony Scale (SCL-HA) to measure congruence between self-concept and experiences. Data collection followed a double-blind protocol to minimize bias. The findings indicate that the disharmony between self and

experience has the most profound impact on the mental health of these students, closely followed by communication - related issues. There exists a notable negative correlation between the mental health of physical education majors and the self - experience disharmony, while a significant positive correlation is observed between mental health and self - flexibility. Students with better mental health conditions exhibit remarkably higher levels of self - harmony and self - flexibility compared to those with poorer mental health. Drawing on Rogers' humanistic psychology framework, this study explores the interplay between self-harmony and mental health among sports majors. By employing mixed-method analyses (SCL-90 and SCL-HA scales), we identify key predictors of psychological well-being and propose actionable strategies for enhancing mental health interventions tailored to this cohort.

Keywords: Physical Education Major College Students; Mental Health; Self-Harmony

1.Introduction

Self-harmony is a fundamental concept within Rogers' personality theory. It represents a psychological state where an individual's self - concept is free from internal conflicts.

Self-harmony, a cornerstone of Rogers' theory, reflects the alignment between an individual's self-perception and lived experiences. Discrepancies in this alignment—termed 'self-disharmony'—trigger cognitive dissonance, often manifesting as anxiety or maladaptive behaviors^[1]. Essentially, it reflects the congruence and harmony between one's self - perception and their a

ctual experiences (or behaviors and experiences), and is considered a key indicator of good mental health. When this unity cannot be achieved, internal contradictions and distress emerge, giving rise to a state of "disharmony"^[3]. To safeguard their self - concept, individuals often resort to various defensive mechanisms, which are intricately linked to their mental health^[4].

Previous research has demonstrated that when there is a disparity between an individual's self - perception and their experiences, it triggers internal tension and confusion, namely self - disharmony. In an attempt to uphold their self-concept, individuals might adopt defense mechanisms that could potentially lead to psychological disorders. Humans inherently possess the ability to maintain consistency among different self - perceptions and to balance the relationship between the self and experiences. However, when conflicts arise among self - perceptions or contradictions occur between the self and experiences, individuals will inevitably experience inner unease and distress.

Understanding the relationship between mental health and self - harmony in physical education majors is of great significance. For sports majors, whose identity is closely tied to physical performance, such disharmony may exacerbate stress during transitions from academic to professional environments. It provides a solid foundation for the psychological health education and counseling activities targeted at this group of students, which is crucial for promoting their overall well - being and healthy development.

2. Methodology

College students majoring in physical education are in a stage of psychological development where their thoughts and mentalities are not yet fully mature. As such, they are vulnerable to the negative influences of social phenomena like money - worship and hedonism^[5]. These external factors can easily entangle them in a web of conflicting value standards, resulting in value confusion and psychological imbalances.

To address personal issues effectively, students need to have a comprehensive understanding of themselves, actively experience life, and achieve a high level of self - harmony. This enables them to better manage self - related emotional problems and real - life challenges. With the evolution of the market economy, a competitive mechanism has been introduced into higher education. This includes merit - based awards and cadre elections. Unfortunately, many physical education majors lack effective self - psychological adjustment methods. As a result, they often experience various forms of antagonistic psychology in

relationships, in the face of success or failure, and when comparing their ideals with their actual abilities.

The psychological health education in colleges and universities is centered around students, especially those majoring in physical education. All forms and contents of evaluation ultimately aim to improve the psychological quality of these students, cultivating well - rounded individuals who can adapt to the healthy development of society both physically and mentally.

The period of being a physical education major is a critical stage for the development of self - awareness. Moreover, self - awareness serves as the cornerstone for contemporary physical education majors' outlooks on life and the world. As they progress through their college years, their independence and self - esteem gradually strengthen, and they place increasing emphasis on self - development, with a particular focus on enhancing their knowledge, character, and talents.

A correlation analysis was carried out between mental health and self - harmony. The results (presented in Table 1) revealed that the disharmony between self and experience was positively correlated with various symptom factors and the total score of the scale.

Table 1 Correlation analysis between mental health and self-harmony

	Somatization	Obsessive compulsive symptoms	Interpersonal sensitivity	Depressed
Disharmony between Self and Experience	0.34	0.67	0.44	0.29
Self-flexibility	-0.12	-0.35	-0.25	-0.17

In individuals with self - harmony, there are no conflicts within their self - concept. The self - concept encompasses the ideal self and the real self, and the gap between them can be used as an indicator to assess an individual's mental health. In some educational institutions, students are burdened with a heavy academic load. The curriculum is extensive and complex, the learning time is long, sleep is insufficient, there is a lack of proper physical exercise and time for emotional relaxation, and the learning tasks are overwhelming. All these factors can lead to fatigue, a decline in the function of the cerebral cortex, and a lack of concentration^[6].

When individuals experience disharmony between the self and experience, as well as within the self, they may encounter feelings of helplessness, compulsion, and depression.

Exposure to information that contradicts their self - perception can trigger anxiety, which can be difficult to overcome. College students' psychological development is in a stage of rapid yet incomplete maturity. Besides the common psychological phenomena of adults, their specific environment and roles endow them with unique psychological characteristics.

In people's lives, self - development and self - evaluation play an essential role. Mentally healthy individuals tend to accept and recognize themselves, while those with psychological problems often show dissatisfaction and rejection towards themselves. The challenging and competitive nature of sports allows students to overcome difficulties, assess their physical conditions, emotions, willpower, and psychological endurance, gradually helping them form a more objective self - evaluation and self - awareness.

Based on a total score of 2.0, the subjects were grouped for comparison. A t - test was conducted on the scores of students with different mental health levels on the self - harmony scale, and the results (presented in Table 2) showed extremely significant differences.

Table 2 Comparison of self-harmony between different mental health level groups

	Total score <1	Total score >1
Disharmony between Self and Experience	2.33±0.35	2.47±0.21
Self-flexibility	2.17±0.17	1.04±0.25

The quality of interpersonal relationships depends on whether people can actively pay attention to one another. Positive interpersonal relationships can help individuals alleviate loneliness, resolve interpersonal conflicts, and satisfy their needs for security, belonging, and love.

In the regression analysis with somatization as the dependent variable, the variables included in the equation were the self - flexibility and the disharmony between self and experience, in that order. The total score of the self - harmony scale is composed of the scores of the self - experience disharmony, the reverse score of self - flexibility, and the self - stereotyping sub - scales. A higher total score indicates a lower level of self - harmony.

A step - wise regression analysis was performed using each dimension of the self - harmony scale as an independent variable. The results showed that in the regression analysis with depression and suspicion as independent variables, the variables included in the equation were the self - experience disharmony and self - flexibility, successively.

The self can be divided into the cognitive self, emotional self, and volitional self^[7]. The coordination and unity of these aspects are beneficial for enhancing the self - esteem and self -

confidence of physical education majors and guiding them towards success. Among the factors of self - harmony, self - flexibility, a positive factor, is negatively correlated with other interpersonal relationship factors. The self - harmony of physical education majors can contribute to harmonious interpersonal relationships, a harmonious learning environment, and a harmonious campus atmosphere. Therefore, self - harmony is not only the focus of college mental health education but also an important indicator for evaluating the effectiveness of such education.

3.Result Analysis and Discussion

Relationship between Self - Experience Disharmony and Mental Health.The analysis of the relationship between self - experience disharmony and mental health indicated that self - experience disharmony was positively correlated with all symptom factors and the total scale score, and it had the highest predictive power. A further multiple variance analysis of self - consistency and harmony scores and stereotyping factors showed that students from different majors had similar differences in these two aspects.The contradiction between the "ought - to - be self" (as expected by others) and the "actual self" (as evaluated by oneself), where one's self - evaluation is low, is the cognitive root of anxiety among physical education majors. The higher the degree of self - disharmony, the more likely students are to suffer from psychological problems such as anxiety, depression, interpersonal sensitivity, compulsion, hostility, and phobia. This finding is consistent with many previous research results, highlighting the need for medical workers and educators to pay close attention to the mental health of physical education majors^[8].Some self - harmony factors are positively related to mental health, while others are negatively correlated. All interpersonal factors, however, are positively related to mental health, with a relatively high degree of correlation. This emphasizes the importance for physical education majors to strive to create a harmonious interpersonal environment. Psychologists have found that physical education majors with high - level mental health and good interpersonal relationships possess a series of positive personality traits that contribute to building good relationships.

Impact of Self - Awareness Development on Mental Health.The self - awareness of physical education majors has developed rapidly, leading to a differentiation between the subjective self and the objective self, as well as between the ideal self and the real self. However, this development is not always synchronized, and imbalances and inconsistencies may occur.Some studies have found that female students may have a higher level of self -

harmony than male students in some cases, while other scholars' research results are consistent with this study, suggesting that there may not be a significant gender difference in the self - harmony of physical education majors. Students with poor self - adaptation often struggle to adjust to the changes in physical education and campus life after transitioning from high school to college. They tend to rely on previous learning and living patterns, which may lead to more tension and frustration. These negative emotions can trigger stress reactions such as anxiety and depression, and may even manifest as physical symptoms. The gap between one's expectations and reality is reflected in aspects such as sensitivity, suspicion, and a lack of close friends. This indicates that self - harmony has a multi - faceted impact on the mental health of physical education majors. Unreasonable self - evaluations of ability and emotion, along with self - consistency contradictions, can lead to unrealistic expectations of experiences and a rigid self - concept. Although mental health is influenced by numerous factors, self - harmony and interpersonal relationship factors play a significant role in explaining its variations.

Relationship between Self - Flexibility and Mental Health. Self - flexibility was negatively correlated with the total score, as well as with somatization, obsessive - compulsive symptoms, depression, and hostility. Students with good mental health had significantly higher self - flexibility scores than those with poor mental health. Due to the limitations of their previous living environments, physical education majors may still adopt simple and inflexible behaviors in a changing and competitive environment, which can hinder their problem - solving flexibility and creativity. This study suggests that self - awareness and cognition are crucial factors influencing the emotions of physical education majors. Therefore, in mental health education for these students, psychological intervention should focus on these aspects, providing objective and rational guidance.

Self - flexibility reflects an individual's cognitive and behavioral characteristics. People with high self - flexibility can usually view problems from multiple perspectives and explore various solutions. In contrast, those with low self - flexibility often have a narrow way of thinking. In interpersonal relationships, they may fail to consider others' viewpoints, which can lead to interpersonal tensions, experiences that conflict with their self - concepts, and internal conflicts. Thus, self - flexibility is closely related to mental health.

4. Conclusions

According to the self - harmony theory, in a natural state, every individual's self is in a healthy condition. However, when faced with environmental restrictions and life setbacks, the self may become lost. If it cannot break through these obstacles, it may develop into a mental illness.

Physical exercise, as an important means of strengthening willpower, plays a vital role in cultivating students' tenacious will. Strengthening and improving the mental health education of physical education majors is a significant systematic project. It requires the dedicated efforts of higher education workers and the widespread concern and support of society as a whole.

As an outstanding group in society, physical education majors should aim for higher - level mental health development beyond meeting the general standards. They should strive to enhance their ability to adapt to the environment, control the situation, and resist interference. If they can recognize this during their sports and physical education journey, they will be better equipped to face difficulties and setbacks with resilience and confidence, demonstrating strong adaptability and resilience.

Competing Contributions

P.S. and B.J. led the study. All authors conceived and designed the study. P.S. acquired the data. P.S. conducted the statistical analysis. P.S. and B.J. drafted the article. All authors made critical revisions to the manuscript for important intellectual content and gave final approval of the manuscript.

Competing interests

The authors declare no competing interests.

References

- [1] Deng, Hui. Network Ideological and Political Education of College and Research Analysis[J]. *Advanced Materials Research*, 2014, 971-973:2591-2594.
- [2] Xu, Min J. The Research of Ideological and Political Work Management System for College Students Based on J2EE[J]. *Applied Mechanics and Materials*, 2014, 687-691:2533-2536.

- [3] LU, Jie. Ideological and Political Education in China's Higher Education[J]. *East Asian Policy*, 2017, 09(02):78-91.
- [4] Baodi L I, Hefeng P, University C J. Investigation and Countermeasure Research Integrity Education of College Students in Chongqing[J]. *Journal of Chongqing Jiaotong University(Social Sciences Edition)*, 2014, 18 Suppl 3(3 Supplement):348-358.
- [5] Rokka J, Woermann N. Research On the the College Students' Group Activities as the Carrier of the Ideological and Political Education[J]. *Journal of Xinzhou Teachers University*, 2014, 217(13):954-5.
- [6] Haoqiang Z, Zhen W, Li B, et al. The significance of copy number variation in multiple osteosarcoma's malignance grade, drug resistance and classification[J]. *Journal of Huaihai Institute of Technology*, 2017, 24(1):41-46.
- [7] Nguyen-Feng V N, Greer C S, Frazier P. Using online interventions to deliver college student mental health resources: Evidence from randomized clinical trials[J]. *Psychological Services*, 2017, 14(4):481.
- [8] Gómez, Jennifer M. Does ethno-cultural betrayal in trauma affect Asian American/Pacific Islander college students' mental health outcomes? An exploratory study[J]. *Journal of American College Health*, 2017:00-00.
- [9] Johnson K F, Kalkbrenner M T. The Utilization of Technological Innovations to Support College Student Mental Health: Mobile Health Communication[J]. *Journal of Technology in Human Services*, 2018:1-26.
- [10] Canady, Valerie A. Investing in college students\' mental health yields 'societal benefit'[J]. *Mental Health Weekly*, 2022, 25(48):1-8.
- [11] Rosenbaum P J, Liebert H. Reframing the Conversation on College Student Mental Health[J]. *Journal of College Student Psychotherapy*, 2023, 29(3):179-196.
- [12] Reyna I. The California Community College Student Mental Health Program: its impact on the capacity of grant-awarded community colleges ability to respond to student mental health[J]. *American Journal of Public Health & the Nations Health*, 2024, 47(7):797-801.
- [13] Kouros C D, Pruitt M M, Ekas N V, et al. Helicopter Parenting, Autonomy Support, and College Students' Mental Health and Well-being: The Moderating Role of Sex and Ethnicity[J]. *Journal of Child & Family Studies*, 2024, 26(3):1-11.

