

# The Corrective Effect of Ideological and Moral Education on the Negative Psychology of Girl Students in Physical Education

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## Abstract

The research objective was to check the corrective effect of ideological and moral education on the negative psychology of female students in physical education. The study involved three groups of female students: a regular teaching group, a 6-week exercise group, and a 12-week exercise group. The exercise intervention plan included secondary public aerobics, with controlled exercise intensity through heart rate indicators. The results of the study revealed that, before the experiment, there were no significant differences in the inhibitory function, conversion function, and refresh function components among the groups, indicating homogeneity. However, after the exercise interventions, significant improvements were observed in the inhibitory function in both the 6-week and 12-week exercise groups compared to the regular teaching group. Similarly, the 12-week exercise group showed a significant improvement in conversion function compared to the conventional teaching group. Moreover, the refresh function also exhibited significant improvement in the 12-week exercise group compared to the conventional teaching group. The findings suggest that continuous physical exercise, with moderate intensity lasting for 12 weeks, coupled with ideological and moral education, can be beneficial in enhancing psychological regulation functions among female college students. These results hold practical implications for incorporating targeted exercise interventions and educational approaches in physical education to promote students' psychological well-being. However, future research with more diverse samples and longer-term interventions is warranted to further validate and extend these findings because future research could be explored to other countries.

**Keywords:** Ideological and Moral Education, Physical Exercise, Psychological Regulation.

## Introduction

The main battlefield of school moral education lies in ideological and moral education, focusing on traceless education. However, it is crucial for ideological and moral teachers to not only impart knowledge but also integrate mental health education into their teachings, starting from classroom management and extending to external influences. By prioritizing students' mental health, the ultimate goal is to help them establish a correct worldview and outlook on life, fostering qualities like empathy and gratitude, leading to the development of a sound personality (Jin, 2021). The current situation of contemporary college students' values highlights the significance of carrying out ideological and political education to establish correct life values. This education should not be limited to traditional academic knowledge found in textbooks, but also encompass the essential "knowledge points" of life. By doing so, students can avoid confusion and uncertainty in their life paths (Jin, 2021).

College students face numerous challenges that impact their psychological resilience, such as academic pressure, daily life stress, and the influence of the internet (Zhao et al., 2022). This has led to a rise in psychological problems and harmful behaviors, including smoking, alcohol abuse, and even more

severe cases of anxiety, depression, and suicidal tendencies. Therefore, incorporating mental health education into ideological and moral teachings becomes paramount to address these issues and safeguard the physical and mental well-being of adolescents (Deng, 2021). Additionally, family plays a significant role in shaping a student's psychology. Some parents employ negative educational methods, which can have adverse psychological effects on their children. Factors like a lack of physical experience, low personal qualities, weak legal awareness, and a focus on academic achievements over morality can also contribute to psychological pressures on students (Ai, 2021).

To address these challenges and foster a positive learning environment, the teacher-student relationship plays a crucial role (Hue & Li, 2008). Adopting various methods to create a democratic, equal, and harmonious classroom atmosphere helps to dissolve the traditional "authority" status of teachers, making them more approachable and trustworthy. This approach encourages students to actively participate in learning, express their thoughts, and develop their potential while promoting a healthier mentality (Si, 2022). Building upon the insights of existing research on psychological resilience and the influence of family and teacher-student relationships, this study aims to investigate the specific impact

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of ideological and moral education on girl students' negative psychology in the context of physical education (Tessier et al., 2010). The research will delve into the effectiveness of various ideological and moral teaching approaches in enhancing students' mental well-being and their ability to cope with challenges in physical education settings (Howes, 2016). By identifying and analyzing the corrective effects of this form of education, the study aims to contribute valuable insights to the field of educational psychology and further promote students' overall well-being and personal growth (Dawson & Singh-Dhesi, 2010).

The research is organized into five chapters, each serving a distinct purpose. The introduction chapter provides a comprehensive overview of the research objectives, setting the context for the study and highlighting the significance. In the literature review chapter. This thorough review establishes the theoretical framework, laying the foundation for the research's methodology and guiding the investigation. The research methodology chapter outlines the chosen approach, which includes conducting a literature review, administering questionnaire surveys, and employing statistical analysis. Moving on to the data analysis and results chapter, the research presents the findings obtained through rigorous statistical analysis. Finally, the discussion and conclusion chapter interpret the results in-depth, offering insightful analysis of their implications. The study's limitations are acknowledged and addressed, while also presenting avenues for future research in this area, encouraging further exploration and understanding of the subject.

## Literature Review

Ideological and moral teachers in the teaching design, the more life, students are easier to remember, have experience to life, life experience is the real experience of life, embodies the teacher to the real emotion of life, as a teacher, make full use of their own life experience in teaching design, let it become build effective classroom ecological teaching resources. Suhomlinsky once said: there is a deep-rooted need in one's mind to feel like a discoverer, a researcher, and an explorer. In the spiritual world of the students. In this demand is particularly strong, so in the teaching with simple classroom design to stimulate students' vitality, promote the healthy growth of students, let students understand the role of social responsibility, learn to communicate with various roles, mutual understanding, improve themselves, cultivate healthy psychological quality, thus produce positive emotion, promote the development of personality (Lonsdale et al., 2013; Madden et al., 2020). The new curriculum standard proposes that in the ideological and moral teaching, "we should constantly create conditions, promote students' moral

practice, enrich students' health experience, feel and understand the ideological and moral value requirements of the society, and gradually form correct moral values and good behavior habits". Therefore, in classroom teaching, we should create activity situations close to the actual life of students to provide students with a lot of opportunities for practice, interaction and communication, so as to promote students to understand in the process of emotional experience, so as to improve their personality, develop in an all-round way, practice independently, and realize the harmony and unity of knowledge, emotion, meaning and action.

A caring person easy to achieve a good life, cultivate love is an old topic, in "respect for others is my need" class teaching design, learn to respect others, from the "important others" around, let the students from the family love, because I bring hope to parents, when we need most is their reminder and love, give us motivation and confidence, let the students feel love is not only a kind of emotion, but also is a responsibility, is an understanding of understanding, a dedication. On the road in life, everyone will encounter setbacks, the meaning of life is not only in solving the problems they encounter, also to help others to solve their problems, if we help make others get happiness and happiness, our spirit will get great satisfaction, spiritual state will be sublimation, life is more meaningful, more valuable (Seligman & Csikszentmihalyi, 2000). Always maintain an optimistic and cheerful state of mind, which is a kind of confidence in life, full of expectations of the future, hold this state of mind, even if setbacks, career success, such emotional experience can really cultivate students' optimistic healthy psychology and good personality. To address this research question based on the "Moodle LMS" system of Tashkent School of Pharmacy, we briefly introduce the organizational principles of network teaching in the course of "information technology and process mathematical modeling", and show its main characteristics and advantages. In the national talent training program, educational technology should be widely used to optimize, humanized and innovate, and solve the task of training and educating young people, so that they will become qualified professionals with noble moral values, spiritual civilization, serious work, and a deep sense of responsibility for society and family, competitive and qualified. Organizing, managing, and controlling the learning process based on methods is relevant. Today, students are provided with a large amount of fast, rich and reliable information and opportunities to independently acquire knowledge (Baydullaev et al., 2021). Jasem, A. H. A. et al The aim is to explore the psychological endurance of female college students and its relationship with moral intelligence. The results of sports and Sports Science (Karbala, Babylon, Kufa, Qadisiyah) showed that the study sample had psychological resilience and moral intelligence, and that there

was a significant statistical correlation between these two variables in the study sample (Hamza & Khudair, 2022).

On the other hand, physical education also played an important part in determining students' overall well-being, and psychological resilience is a crucial aspect of their development (Lubans et al., 2012). Research has explored the relationship between psychological resilience and physical education, with some studies finding that active engagement in physical activities positively influences resilience over time. However, negative psychological issues among girl students in this context have been a concern. To address this, researchers have turned their attention to the potential corrective effect of ideological and moral education. In other words, the moral education has been recognized as a vital factor in character development and emotional well-being among students (Zhang et al., 2021). It has been found that incorporating moral values and ethical principles within the curriculum positively impacts self-esteem and interpersonal relationships (Iacobucci et al., 2013). This suggests that such education could have a positive influence on girl students' psychological well-being in physical education settings.

Moreover, seeing potential gender differences, a comparative study by Son et al. (2020) explored the response of boys and girls to ideological education interventions in physical education. The study revealed that girls who received ideological and moral education interventions experienced a more significant increase in self-confidence and self-efficacy in physical activities compared to boys. This indicates that ideological education may have a more pronounced corrective effect on negative psychology among girl students in physical education (Bailey et al., 2009). To further enhance the corrective effect, researchers have investigated the integration of mental health education within physical education settings. Researchers implemented a mental health education program alongside physical education classes and observed a significant reduction in stress and anxiety levels among participating students. The combination of ideological and moral education with mental health education seems to hold promise in promoting positive psychological outcomes for girl students in physical education.

The previous literature review section undermines the significance of integrating ideological and moral education strategies in physical education to sustain the mental well-being of girl students and promote a positive learning environment. However, further research is needed to explore the specific mechanisms and long-term effects of these interventions for a more comprehensive understanding of their impact. Therefore, based on previous discussion, the current study aims to check the corrective effect of ideological and moral education on the negative psychology of girl

students in physical education.

## **Research Methodology**

### **Research Object**

The research included a total of 90 female students from three teaching classes of public physical education elective courses in their first year of university. Randomly divided into a regular teaching group (30 students), a 6-week exercise group (30 students), and a 12-week exercise group (30 students) (Zhang, 2021).

### **Research methods**

#### **Exercise Intervention Plan**

The sport is secondary public aerobics, and the duration of each exercise is 30 minutes, the exercise frequency was 2 times per week in the regular teaching group, 6 weeks of exercise group, and 12 weeks of exercise group, and female college students were given ideological and moral education 3 times per week, the exercise intensity was controlled through heart rate indicators. Four students were randomly selected to wear a Polar heart rate remote control device in each class, the conventional teaching group did not implement exercise intensity control but measured it, the 6-week and 12-week exercise groups had moderate exercise intensity, and the heart rate was controlled between 130-150 beats per minute. During the experiment, all participating students are required to avoid participating in other physical exercises as much as possible. Among them, the 6-week exercise group had the same exercise intervention plan as the conventional teaching group during the 7-12 weeks of the experiment.

#### **Experimental Implementation Arrangements**

Each group receives physical exercise intervention at the same time and place, with a fixed number of teachers. Measure the psychological regulation function of three groups of students before the experiment, and use the same method to test the psychological regulation function of the three groups of students at weeks 7 and 13, respectively (Yang, 2022).

#### **Data Processing**

Use the statistical analysis software package SPSS17.0 for statistical analysis. Using one-way ANOVA to analyze the homogeneity of psychological regulation function among the first three groups of college female students in the experiment; Repeated measurement variance analysis was used to analyze the effect of aerobics exercise on the psychological adjustment function of female college students in different duration before, during and after the experiment. Set  $p < 0.05$  as significance, marked with "\*",  $p < 0.01$  as very significant difference, marked with "\*\*" (Chen, 2022).

## Results and Analysis

### Test The Psychological Regulation Function of College Female Students in Different Duration of Physical Exercise Groups Before the Experiment

The results of one-way ANOVA [Table 1](#) for each subfunction [Table 1](#)

One-Way ANOVA Of Each Subfunction of College Students with Different Durduration in The Early Period (M±SD)

Functional type	Regular teaching group	Exercise for 6 weeks in the group	Exercise for 12 weeks in the group	F	P
Suppression function	13.63±3.19	13.47±2.32	13.58±2.26	0.47	0.63
Conversion function	342.81±65.617	322.79±54.708	303.06±69.223	1.432	0.250
Refresh the function	806.03±83.669	780.30±99.098	758.24±118.533	0.834	0.441

### Analysis of Inhibitory Function in Female College Students in The Routine Teaching Group, 6-Week Exercise Group, and 12-Week Exercise Group Before, During, and After The Experiment

Table 2

Groups With Different Duration in The Middle and Late Periods Before the Experiment Suppressive Function Analysis of University Girls

	III mould quadratic sum	DF	Mean square	F	P
Time	1037.434	2	518.717	38.678	0.000* *
Group	134.090	2	67.045	3.478	0.045*

Multiple repeated measures of variance analysis were used to investigate the changes in inhibitory function of female college students in the conventional teaching group, 6-week exercise group, and 12-week exercise group (see

[Table 2](#)), and the group factor effect was significant ( $P < 0.05$ ). The use of different durations of physical exercise has a significant impact on the inhibitory function of female college students.

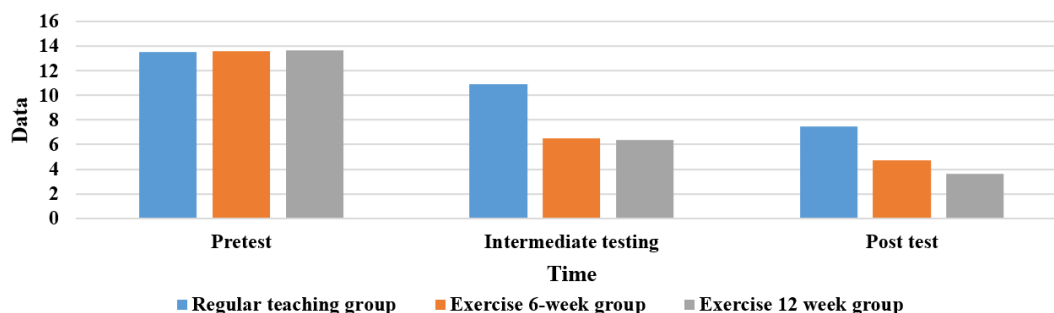


Figure 1: Comparison of Inhibitory Function Performance in Different Duration of Physical Exercise Groups in The Middle and Late Periods Before the Experiment.

The multiple comparison results of the inhibitory function of different groups of college female students before, during, and after the experiment showed that there was a significant difference in the improvement of inhibitory function between the 12 week exercise group and the conventional teaching group ( $P = 0.022 < 0.05$ ); There was a significant difference in the improvement of inhibitory function between the 6-week exercise group and the conventional teaching group ( $P = 0.044 < 0.05$ ). There was no significant difference in the improvement of

inhibitory function between the 6-week exercise group and the 12-week exercise group. The specific performance changes in each group are shown in [Figure 1](#). Result explanation, continuous 12 weeks, 3 times a week, and moderate intensity of physical exercise are more conducive to improving inhibitory function. The improvement effect of inhibitory function was in the following order: exercise 12 week group > exercise 6 week group > routine teaching group ([Marsh et al., 2023](#)).

**Analysis of the conversion function of college female**

**students in the routine teaching group, 6-week exercise group, and 12-week exercise group before, during, and after the experiment**

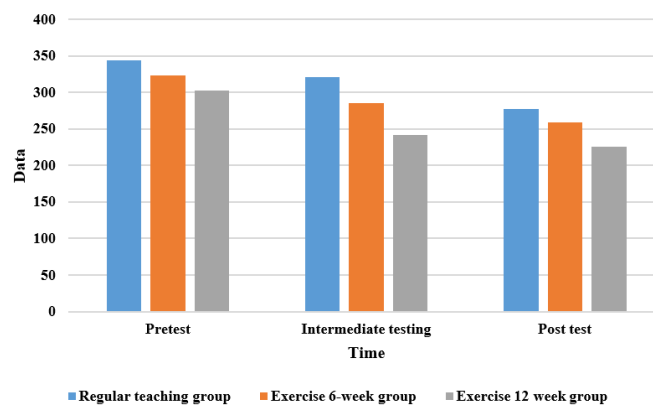
Multiple repeated measures of variance analysis were used to investigate the changes in the conversion function of

female college students in the conventional teaching group, 6-week exercise group, and 12-week exercise group (see Table 3), the group factor effect was significant ( $P=0.024<0.05$ ), indicating that different durations of physical exercise had a significant impact on the conversion function of female college students.

**Table 3**

*Conversion Function Analysis of College Girls in the Aerobics Exercise Group with Different Duration in the Middle and Late Period Before the Experiment*

	III mould quadratic sum	DF	Mean square	F	P
Time	103910.591	2	51955.295	19.577	0.000* *
Group	74588.047	2	37294.023	4.080	0.024*



**Figure 2:** Comparison of Internal Conversion Function Performance of Different Duration in the Middle and Late Periods Before the Experiment.

The multiple comparison results of the conversion function of different groups of college female students before, during, and after the experiment indicate that: There was no significant difference in conversion function between the 6-week exercise group and the conventional teaching group,  $P=0.639>0.05$ ; Compared with the conventional teaching group, the 12 week exercise group showed a significant difference in conversion function ( $P=0.020<0.01$ ), while the 6 week exercise group showed

no significant difference in conversion function ( $P=0.361>0.05$ ). The specific changes in each group's grades are shown in Figure 2, the results indicate that moderate intensity physical exercise lasting for 12 weeks, three times a week, is more conducive to improving conversion function. The improvement effect of conversion function is in the following order: Exercise 12 week group>exercise 6 week group>conventional teaching group (Lee & Lovibond, 2021).

**Analysis of Refresh Function of Female College Students In The Routine Teaching Group, 6-Week Exercise Group, and 12-Week Exercise Group Before, During, and After The Experiment**

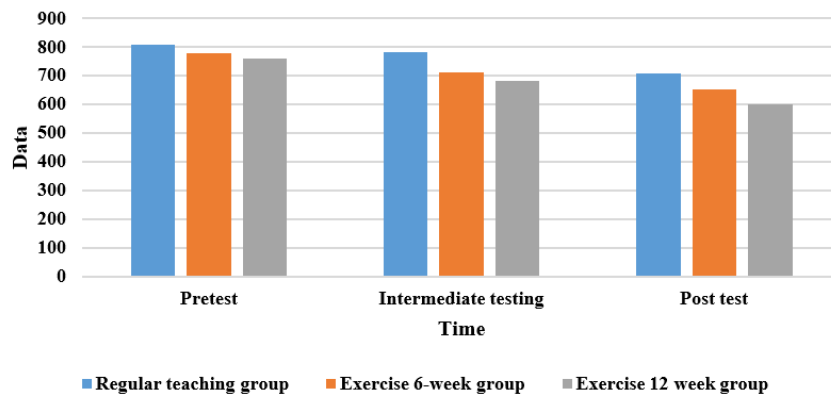
**Table 4**

*Analysis of the Refresh Function of College Girls in the Aerobics Exercise Group with Different Duration in The Middle and Late Period Before the Experiment*

	III mould quadratic sum	DF	Mean square	F	P
Time	369911.562	2	184955.781	41.283	0.000* *
Group	161658.648	2	80829.324	3.534	0.038*

Multiple repeated measures of variance analysis were used to investigate the changes in conversion function of female college students in the conventional teaching group, 6-week exercise group, and 12-week exercise group (see

Table 4). The group factor effect is significant ( $P=0.038<0.05$ ), indicating that using different durations of physical exercise has a significant impact on the refresh function of college girls.



**Figure 3:** Comparison of Refresh Function Scores in The Aerobics Exercise Group with Different Duration Before the Middle and Later Period of the Experiment.

The multiple comparison results of the refresh function of different groups of college girls before, during, and after the experiment showed that there was no significant difference in refresh function between the 6-week exercise group and the conventional teaching group,  $P=0.346>0.05$ ; Compared with the conventional teaching group, the 12 week exercise group showed a significant difference in conversion function ( $P=0.035<0.01$ ); There was no significant difference in conversion function between the 6-week exercise group and the 12-week exercise group,  $P=0.929>0.05$ . The specific changes in each group's grades are shown in Figure 3. The results indicate that moderate intensity physical exercise lasting for 12 weeks, three times a week, is more conducive to improving refresh function. The improvement effect of the refresh function is as follows: Exercise 12 week group > exercise 6 week group > conventional teaching group (Jin, 2021).

## Discussion

This study explores the impact of physical exercise on individuals from both physiological and psychological perspectives, considering various research perspectives such as exercise project, duration, frequency, and intensity to tailor exercise prescriptions to meet the physical and mental needs of the target population (McPhee et al., 2016). The research focuses on three forms of aerobics: the regular teaching group with once-a-week physical exercise without intensity control, the 6-week exercise group with medium-intensity aerobics both in class and extracurricularly, and the 12-week exercise group with the same exercise plan as the 6-week group but lasting for a longer duration (Tang & Shi, 2021). The results demonstrate improvements in the inhibition, conversion, and refresh functions of college girls in all three groups. Duration emerges as a crucial factor affecting the development of these functions, with the 12-week and 6-week exercise groups showing significantly better outcomes compared to the regular

teaching group in terms of enhancing inhibitory, conversion, and refresh functions (Zhang et al., 2021). Furthermore, the study reveals that different forms of aerobics exercise have varying effects on the transformation of college girls' cognitive functions. Specifically, continuous exercise for 12 weeks, twice a week, with moderate-intensity aerobics, proves most effective in improving conversion functions, while the regular teaching group lags behind. Similarly, the 12-week exercise group, engaging in continuous exercise with moderate intensity twice a week, yields the most substantial improvements in the refresh function, outperforming the regular teaching group (Chen, 2022).

Synthesizing the findings, it is evident that physical exercise in various forms positively impacts the psychological adjustment function of college girls (Maugeri et al., 2020; Son et al., 2020). Duration of exercise emerges as a significant factor in improving this function, with continuous exercise for 12 weeks, twice a week, and moderate-intensity aerobics showing the most favorable outcomes. The 6-week exercise group also exhibits positive effects on psychological adjustment functions (Zhang, 2021). To ensure effective physical education teaching, instructors must demonstrate patience and provide meticulous ideological education (Scott, 2023). Acknowledging the diverse physical qualities, abilities, and willpower of students, instructors should never underestimate or show impatience towards those who face difficulties in certain exercises. A positive and gradual teaching approach, along with continuous practice, can help students overcome challenges and build confidence (Wu, 2021). The improved cognitive functions observed in college girls through physical exercise support the belief that it can positively influence advanced cognitive functions, showing plasticity in psychological regulation. The psychological mechanism may be attributed to the release of psychological pressure through body movements, induced by rhythmic aerobics exercises accompanied by

music (Karageorghis & Priest, 2012). This process stimulates positive emotions, leading to changes in the brain activation mode of psychological regulation function. These changes enhance perceptual and motor speed, memory persistence, endogenous attention transfer, and distribution, ultimately promoting better psychological regulatory functions. Additionally, such exercises foster dynamic and flexible cognitive processes during purposeful behaviors, improving information processing speed, accuracy, breadth, and rationality (Li, 2021).

Regarding the mechanisms through which physical exercise improves executive functions, researchers propose several explanations. One perspective is that cognitive function depends on individual brain function, and good cardiovascular health is vital for maintaining brain function. Studies have shown that physical exercise can enhance cardiovascular function to some extent, contributing to improved cognitive functions. Another perspective suggests that physical exercise influences brain neurotransmitters, with gentle exercise increasing noradrenaline levels, which play a crucial role in memory capacity. Additionally, research indicates that physical exercise can lead to structural changes in the brain, with evidence of increased gray and white matter volumes in regions associated with executive functions (Li, 2021). Comprehensively, the physical exercise has positive effect on both physiological and psychological aspects of individuals (Peluso & De Andrade, 2005). Different forms and durations of aerobics exercise are effective in enhancing inhibitory, conversion, and refresh functions in college girls (Chu et al., 2015). Longer durations, such as 12 weeks of continuous exercise, twice a week, with moderate intensity, exhibit the most pronounced improvements. Physical education instructors must approach teaching with patience and understanding, supporting students in overcoming challenges gradually. The cognitive benefits of physical exercise, along with its potential to enhance executive functions, highlight the significance of incorporating tailored exercise interventions in physical education to promote overall well-being and cognitive development in students.

## **Implications**

Every research has some implications based on study results. Therefore, this research also has some practical and theoretical contributions. Practically, incorporating ideological and moral education within physical education settings can have a positive corrective effect on the negative psychology of girl students. By integrating moral values, ethical principles, and mental health education into the

curriculum, educators can create a more supportive and nurturing learning environment. This approach can enhance students' psychological resilience, self-confidence, and self-efficacy, leading to improved emotional well-being and overall positive attitudes towards physical education. Additionally, the study highlights the significance of the duration and intensity of physical exercise interventions. The results suggest that a continuous 12-week moderate-intensity physical exercise program, coupled with ideological and moral education, is more conducive to improving students' psychological regulation functions. Thus, educational institutions should consider implementing long-term physical exercise interventions in tandem with comprehensive ideological and moral education to maximize the benefits for students' mental well-being.

On the other hand, theoretically, this study also contributes to the understanding of the interconnectedness between physical education, ideological and moral education, and psychological well-being. It offers empirical proof of the beneficial impacts of ideological and moral education interventions in fostering students' psychological adaptability and resilience. The study also emphasizes how gender differences matter, with girl pupils showing a specific response to ideological education, especially in terms of self-confidence and self-efficacy in physical activities. Additionally, research sheds light on the significance of integrating treatments for physical activity with mental health education. Educational theories may be improved by including these factors, and a more all-encompassing strategy for student development can be adopted. The study emphasizes the need of persistent efforts to foster favorable psychological outcomes and the promise of long-term therapies.

## **Limitations and future Directions**

This study has a number of limitations that need to be investigated for future studies that would generalize the study's suggestions. At first, study focused solely on female students in their first year of university, which may limit the generalizability of the findings to other populations and age groups. To give a more thorough knowledge of the influence of ideological and moral education on psychological regulatory functions, future study should include a more varied sample, including male students and people with varying academic levels. Second, although being beneficial in enhancing psychological regulation functions, the exercise intervention plan could not adequately account for the intricacies of actual physical education contexts. The study's-controlled environment

and short-term duration may not reflect the challenges and variations that students face in their daily lives. To address this limitation, future research could explore long-term, real-world implementations of ideological and moral education within regular physical education classes to assess its sustained impact on students' psychological well-being. Furthermore, the reliance on self-report questionnaires to assess psychological regulation functions may introduce response biases and social desirability effects. Future studies should consider incorporating objective measures or observational methods to provide a more comprehensive and objective assessment of students' psychological adjustments. Furthermore, this study did not investigate the potential moderating effects of individual differences, such as personality traits, prior experiences, and cultural backgrounds. Future research could explore how these factors may interact with ideological and moral education interventions to influence students' psychological outcomes. On the other hand, research was limited to developing economy where working environment is changed as compared to developed economy, therefore, future research could be explored on developed economy to know the variation in the results.

## Conclusion

Based on previous findings it is concluded on the following objective where was to investigate the corrective effect of ideological and moral education on the negative

psychology of female students in physical education. The study involved three groups of female students: a regular teaching group, a 6-week exercise group, and a 12-week exercise group. The exercise intervention plan included secondary public aerobics, with controlled exercise intensity through heart rate indicators. The results of the study revealed that, before the experiment, there were no significant differences in the inhibitory function, conversion function, and refresh function components among the groups, indicating homogeneity. However, after the exercise interventions, significant improvements were observed in the inhibitory function in both the 6-week and 12-week exercise groups compared to the regular teaching group. Similarly, the 12-week exercise group showed a significant improvement in conversion function compared to the conventional teaching group. Moreover, the refresh function also exhibited significant improvement in the 12-week exercise group compared to the conventional teaching group. The findings suggest that continuous physical exercise, with moderate intensity lasting for 12 weeks, coupled with ideological and moral education, can be beneficial in enhancing psychological regulation functions among female college students. These results hold practical implications for incorporating targeted exercise interventions and educational approaches in physical education to promote students' psychological well-being. However, future research with more diverse samples and longer-term interventions is warranted to further validate and extend these findings.

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