

## THE INFLUENCE OF REGULAR PHYSICAL EDUCATION CLASSES ON STUDENTS' MENTAL WELL-BEING AND LEARNING ENGAGEMENT IN HIGHER EDUCATION

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**Abstract.** This study investigates the influence of regular physical education (PE) classes on students' mental well-being and learning engagement in higher education. Increasing academic stress and reduced physical activity have negatively affected university students' psychological health and classroom participation. A quasi-experimental study was conducted with 104 undergraduate students divided into experimental and control groups. The experimental group attended regular structured PE classes for ten weeks, while the control group followed the standard academic schedule without additional physical activity. Mental well-being and learning engagement were assessed using validated questionnaires. The results indicate significant improvements in psychological well-being, stress reduction, and learning engagement among students participating in regular physical education classes. The findings support the integration of physical education as a supportive pedagogical tool in higher education.

**Keywords:** physical education, mental well-being, learning engagement, university students, higher education

### Introduction

University students are increasingly exposed to academic pressure, sedentary lifestyles, and psychological stress. These factors contribute to reduced mental well-being, lower motivation, and decreased engagement in the learning process. Mental health issues such as anxiety, stress, and emotional exhaustion have become common challenges in higher education institutions worldwide. Physical education has traditionally been associated with physical health outcomes; however, recent research highlights its positive influence on psychological well-being and emotional regulation. Regular physical activity has been shown to reduce stress levels,

improve mood, and enhance cognitive functioning. Despite this evidence, physical education is often underrepresented in university curricula.

The purpose of this study is to examine the effects of regular physical education classes on students' mental well-being and learning engagement in a higher education context.

## Methods

### Research Design

A quasi-experimental pre-test/post-test design with experimental and control groups was applied.

### Participants

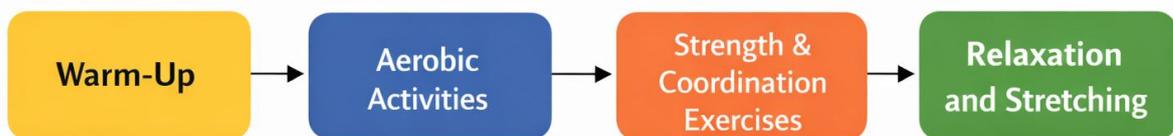
The study involved 104 undergraduate students (aged 18-22) enrolled in education and social science programs.

**Table 1.** Demographic characteristics of participants

Variable	Experimental (n=52)	Control (n=52)
Mean age (years)	19.9 ± 1.2	20.0 ± 1.1
Male (%)	49%	51%
Female (%)	51%	49%
Year of study	1st-2nd	1st-2nd

### Physical Education Program

The experimental group participated in **regular physical education classes** three times per week for ten weeks (60 minutes per session).



**Figure 1.** Structure of regular physical education classes

### Instruments

**Table 2.** Measurement instruments

Variable	Instrument	Scale
Mental well-being	Warwick-Edinburgh Mental Well-being Scale (WEMWBS)	14-70
Perceived stress	Perceived Stress Scale (PSS)	0-40

Learning engagement	Student Engagement Scale	Likert (1-5)
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## Data Analysis

Data were analyzed using SPSS 26.0. Paired sample t-tests and independent sample t-tests were applied. Statistical significance was set at  $p < 0.05$ .

## Results

### Mental Well-Being

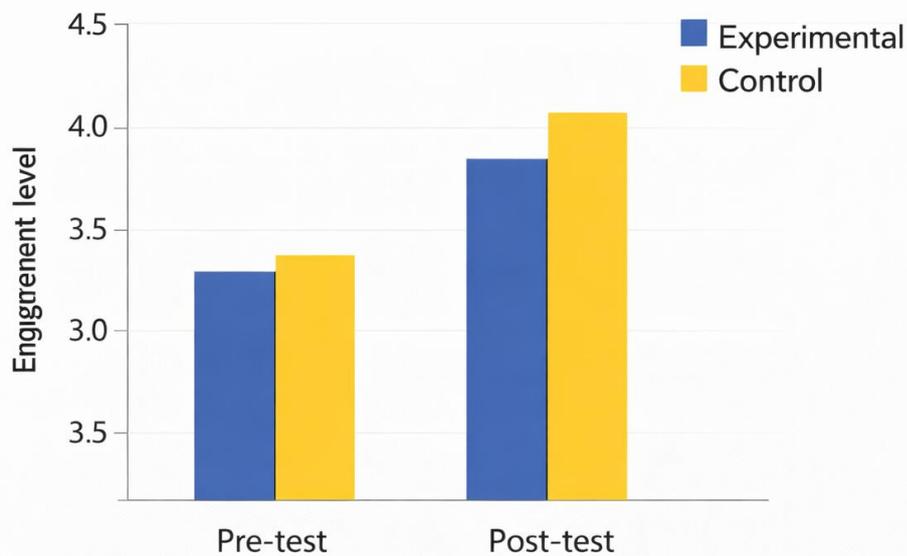
**Table 3.** Changes in mental well-being and stress levels

Variable	Group	Pre-test	Post-test	p-value
Mental well-being	Experimental	44.6 ± 5.3	52.8 ± 4.9	<0.01
	Control	45.1 ± 5.1	45.9 ± 5.4	>0.05
Perceived stress	Experimental	24.2 ± 4.6	18.1 ± 4.2	<0.01
	Control	23.9 ± 4.8	23.4 ± 4.7	>0.05

### Learning Engagement

**Table 4.** Learning engagement scores

Group	Pre-test	Post-test	p-value
Experimental	3.2 ± 0.5	4.1 ± 0.4	<0.01
Control	3.3 ± 0.4	3.4 ± 0.5	>0.05



**Figure 2.** Changes in learning engagement after the intervention

## Discussion

The findings of this study demonstrate that regular physical education classes significantly improve students' mental well-being and reduce perceived stress. These results align with existing

literature emphasizing the psychological benefits of physical activity.

Furthermore, the observed increase in learning engagement suggests that improved mental health positively influences students' participation and motivation in academic activities. Reduced stress and improved emotional balance may enhance attention, persistence, and classroom interaction.

The integration of physical education into university curricula may therefore serve not only health-related goals but also pedagogical and educational objectives.

### **Conclusion**

Regular physical education classes have a positive and significant impact on university students' mental well-being and learning engagement. Higher education institutions should recognize physical education as an essential component of student-centered education and integrate it systematically into academic programs.

### **References**

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