

Anxiety and Attitude: Unpacking the Link in Physical Education

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Abstract

This study explores the relationship between physical education (PE) anxiety and students' attitudes toward the subject. The results reveal a moderate negative linear correlation between PE anxiety and students' attitudes, with a correlation coefficient of -0.405 (p -value = 0.000). This suggests that higher levels of PE anxiety are associated with less favorable attitudes toward the subject. Further analysis indicates that PE anxiety significantly influences attitudes, emphasizing its strong impact on students' perceptions and engagement. The findings highlight the importance of addressing anxiety in PE settings to foster more positive attitudes and enhance student experiences. Students with higher anxiety levels tend to develop negative perceptions of PE, while those with lower anxiety exhibit more favorable attitudes. Implementing strategies such as creating a supportive and non-judgmental environment, focusing on personal growth, and emphasizing skill development can help reduce anxiety and promote a more inclusive, engaging atmosphere. These approaches are essential for improving participation, motivation, and overall enjoyment in physical education classes.

Keywords: Anxiety, Attitude, Physical Education

1. Introduction

Physical education (PE) is a critical component of the educational process, utilizing physical activity to develop the skills, knowledge, and attitudes necessary for optimal health and well-being (Daniel, 2022). By integrating movement skills, fitness, and critical thinking, PE not only supports physical growth but also fosters cognitive and psychomotor development, making it an essential element of the school curriculum (Kh, 2023; Rhoads, 2022). Beyond promoting physical fitness, PE plays a vital role in shaping students' lifelong attitudes toward health and fitness, as well as supporting their mental, emotional, and social development (Kh, 2023; Nashwan, 2024).

While the benefits of PE are widely recognized, the experience of the subject is not universally positive. A growing body of research has highlighted the mental health benefits of PE, with regular participation linked to reduced anxiety and depression. Physical activity serves as an effective outlet for stress relief, enhancing self-confidence and resilience (Singh, 2024). Additionally, PE fosters important social skills such as teamwork, communication, and empathy, which help build meaningful peer relationships and emotional support (Chaudhary, 2024). However, the classroom environment plays a crucial role in shaping

students' comfort, engagement, and overall perceptions of physical activity.

The structure of the PE environment can significantly influence how students experience the subject. Research indicates that task-involved climates, which emphasize personal growth and self-improvement, create a supportive atmosphere that reduces anxiety and encourages engagement. Conversely, ego-involved climates, where success is judged by outperforming others, tend to increase performance anxiety, particularly among students who view themselves as "non-sporty" (Cowley et al., 2021). These findings suggest the importance of fostering inclusive and psychologically safe PE settings, as overly competitive environments may discourage participation and reinforce negative attitudes toward physical activity (McCartan et al., 2020).

This study explored the relationship between PE anxiety and students' attitudes toward the subject, specifically examining how anxiety influences students' perceptions and engagement. The findings revealed a moderate negative linear correlation between PE anxiety and students' attitudes toward PE. The correlation coefficient of -0.405 (p -value = 0.000) indicated a statistically significant relationship, with higher levels of anxiety associated with less favorable attitudes. Furthermore, regression analysis demonstrated that PE anxiety significantly predicted students' attitudes, underlining its strong influence on students' overall engagement and perceptions of the subject. These results emphasize the importance of addressing anxiety in PE environments to improve students' attitudes and enhance their experience. Creating supportive, non-judgmental settings that focus on personal growth and skill development can help reduce anxiety and encourage more positive attitudes and greater participation in PE classes.

1.1 Statement of the Problem

This study aimed to determine the extent to which physical education anxiety predicted attitudes towards physical education among high school students.

1.2 Objectives of the Study

The specific objectives are to achieve the following:

1. Measure the levels of anxiety and attitudes towards physical education among the study respondents.
2. Determine the correlation between physical education anxiety and attitudes towards physical education.

1.3 Significance of the Study

This study holds significant implications for various stakeholders within the educational ecosystem.

Students. By understanding the factors that influence their attitudes towards physical education, students can develop strategies to overcome anxiety, increase motivation, and improve their overall well-being. This knowledge can empower them to actively participate in physical activities and adopt a healthier lifestyle.

Teachers. Physical education teachers can use the insights from this study to tailor their teaching methods to address students' specific needs. By incorporating strategies that reduce anxiety, increase motivation, and foster positive attitudes, teachers can create more engaging and effective learning environments.

School Administration. School administrators can allocate resources to support initiatives that address the factors identified in this study. By investing in programs that promote physical activity and mental health, schools can create a more positive and supportive learning environment for all students.

School Guidance Personnel. School counselors and guidance personnel can use the findings of this study to identify students who may be struggling with physical education anxiety or low motivation. They can provide targeted interventions, such as counseling or referral to specialized services, to help these students overcome challenges and improve their overall well-being.

Parents. By understanding the factors that influence their children's attitudes towards physical education, parents can play a more active role in supporting their children's physical activity. They can encourage participation in sports, outdoor activities, and other forms of physical exercise.

Curriculum Designers. Curriculum developers can use the findings of this study to design physical education curricula that are more engaging, inclusive, and effective. By incorporating strategies that address the needs of diverse learners, curriculum designers can create learning experiences that are enjoyable and beneficial for all students.

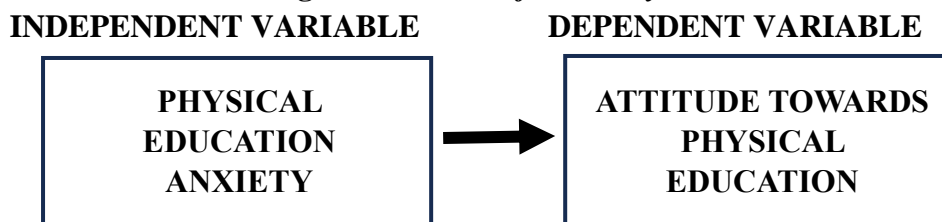
Research. The findings of this study can serve as a foundation for future research on the psychological factors that influence physical activity behavior. By building on this research, future studies can explore more specific aspects of physical education anxiety, motivation, and attitudes, such as the impact of different teaching methods, the role of social support, and the influence of cultural factors.

1.4 Scope and limitations of the Study

This study examined the relationship between physical education anxiety, students' attitudes toward physical education, and the mediating role of motivation among high school students aged 12–17 from a science high school in Mindanao, Philippines, during the 2024–2025 academic year. Several limitations were considered. The sample of 243 students might not have fully represented the diversity of the broader student population. Additionally, the reliance on self-report measures may have introduced response biases, and the cross-sectional design of the study limited the ability to draw causal inferences between the variables. The findings might not have been generalizable to students from other schools or regions, and factors such as school culture and teacher attitudes, which could have influenced student experiences, were not explored in depth. Despite these limitations, the study provided valuable insights into the psychological factors affecting students' attitudes toward physical education, laying the groundwork for future interventions aimed at enhancing engagement and promoting positive physical activity habits.

1.5 Conceptual Framework

Figure 1 Schema of the Study



This conceptual framework explores the relationship between Physical Education (PE) Anxiety and Students' Attitudes Toward PE, aiming to understand how anxiety influences students' perceptions, engagement, and overall experiences in physical education. PE Anxiety refers to the feelings of nervousness, fear, and discomfort that students experience in PE settings, often related to concerns about physical ability, judgment from peers, or the pressure to perform. These anxiety levels can be influenced by personal factors such as self-esteem, past experiences, and physical competence, as well as environmental factors like the classroom climate, teaching methods, and peer relationships. In turn, Students' Attitudes Toward PE reflect their emotional responses, beliefs, and overall perceptions of the subject, which significantly affect their motivation and participation. Positive attitudes are linked to greater engagement and enjoyment in PE, while negative attitudes often lead to disengagement and avoidance. The study hypothesizes that higher levels of PE anxiety are negatively correlated with more favorable

attitudes toward PE, meaning that as anxiety increases, students' perceptions of PE become more negative, reducing their motivation and overall involvement in physical education activities. This framework suggests that PE anxiety is a significant predictor of students' attitudes, highlighting the importance of addressing anxiety in PE environments to improve engagement and foster more positive attitudes.

2. Method and Material

The study employed a quantitative approach, utilizing a descriptive correlational analysis design. Its primary objective was to examine the relationships among key variables, specifically exploring the direct relationship between physical education anxiety and students' attitudes toward physical education. Given the non-experimental nature of the design, the study did not manipulate variables but instead analyzed pre-existing characteristics within the target population. This approach was particularly effective in identifying patterns and correlations among the variables. By exploring the interactions between anxiety and attitudes, the study provided valuable insights into how these factors influenced students' perceptions and engagement in physical education. Correlational designs, as noted by Field (2013), are effective in uncovering relationships among naturally occurring variables, offering valuable insights into how anxiety impacts students' attitudes toward physical education. This methodological framework helped illuminate the ways in which anxiety directly shapes students' perceptions and behaviors regarding PE.

2.1 Research Participants

The participants of the study consisted of 243 students from the target science high school who were enrolled during the 2024–2025 academic year. A simple random sampling technique was employed to ensure that each student had an equal chance of being selected, thereby enhancing the representativeness and generalizability of the findings. This sampling method minimized selection bias and ensured that the sample accurately reflected the larger population. It provided a reliable basis for analyzing the relationships among anxiety, motivation, and attitudes toward physical education within the context of a STEM-focused academic environment.

2.2 Research Instrument

Data for this study were collected using survey questionnaires to gather socio-demographic information, including age, gender, and year level, through a brief self-report questionnaire. Two primary instruments were used to assess the key variables in the study: the Physical Education Anxiety State Scale and the Physical Education Attitude Scale (PEAS). The Physical Education Anxiety State Scale, developed by Barkoukis et al. (2005), was employed to measure students' levels of anxiety during physical education lessons. This psychometric tool consists of 18 items that assess three dimensions of anxiety: somatic anxiety, worry, and cognitive anxiety. Somatic anxiety, which is measured by six items, focuses on tension and apprehension; worry, also assessed with six items, gauges students' unfavorable expectations about their participation in activities; and cognitive anxiety, measured by six additional items, evaluates the impact of anxiety on problem-solving, attention, and memory. The scale uses a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), and has demonstrated strong psychometric properties, including discriminant and convergent validity and reliability (Abbasi et al., 2022). The Physical Education Attitude Scale (PEAS) by Orlić et al. (2017) was used to assess students' attitudes toward physical education. This 43-item scale is divided into four subscales: satisfaction (12 items), comfort (12 items), activity (11 items), and teacher (8 items). The scale utilizes a five-point Likert scale (1 = strongly disagree, 5 = strongly agree) to measure students' general emotions about PE experiences, their comfort level, their motivational processes during participation, and their perceptions of their PE

teachers. Previous studies have supported the scale's psychometric properties, including construct and external validity, making it a reliable tool for evaluating students' attitudes toward physical education.

3. Results and Discussion

The results of this study reveal a moderate negative linear correlation between physical education (PE) anxiety and students' attitudes toward PE, with a correlation coefficient of -0.405 and a p-value of 0.000, indicating a statistically significant relationship. This suggests that as students' anxiety levels increase, their attitudes toward PE become less favorable. Regression analysis further supports this finding, showing that PE anxiety significantly predicts students' attitudes toward the subject, highlighting the strong influence anxiety has on students' perceptions and engagement with physical education. These results align with previous studies, which have consistently shown that higher anxiety levels are associated with negative attitudes toward PE. For example, research by Yaprak et al. (2019) demonstrated that lower trait anxiety correlates with more positive attitudes toward PE, explaining a small percentage of the variance in attitudes. Similarly, Ince (2020) found a negative relationship between anxiety and positive thinking in PE students, showing that increased anxiety negatively affects attitudes and overall learning outcomes. Timo et al. (2023) also highlighted the detrimental impact of cognitive anxiety on students' physical fitness and engagement, reinforcing the negative effects of anxiety on perceptions and participation in PE. The findings underscore the critical importance of addressing anxiety in PE settings, as students with higher anxiety levels are more likely to develop negative attitudes and avoid participation, while those with lower anxiety tend to have more favorable views of the subject. To improve student experiences and foster positive attitudes, it is essential to create supportive and non-judgmental environments that emphasize personal growth, skill development, and inclusivity. By mitigating anxiety, educators can enhance engagement, increase participation, and promote a more enjoyable and motivating experience in physical education.

4. Conclusions and Recommendations

The study demonstrates that physical education (PE) anxiety is a significant factor influencing students' attitudes toward PE. The results show that higher levels of anxiety are associated with more negative attitudes, suggesting that anxiety plays a crucial role in shaping students' perceptions and engagement with the subject. Therefore, it is essential for PE programs to focus on creating supportive environments that reduce anxiety, ultimately improving students' engagement and attitudes toward physical education. To address these findings, the following recommendations are made: Students should be encouraged to recognize the connection between anxiety and attitudes, using coping strategies like mindfulness and stress-reduction techniques. Teachers should create non-judgmental environments to minimize anxiety, and school administrators should invest in teacher development and extracurricular activities that promote positive attitudes toward PE. School counselors can help identify students experiencing high anxiety and offer interventions to support their emotional well-being. Parents can further support their children by encouraging physical activity outside of school and fostering open communication about PE experiences. Curriculum designers should focus on inclusive programs that accommodate students' anxiety levels. Future research should explore the impact of teaching methods, peer support, and cultural factors on PE anxiety. Implementing these recommendations will foster more supportive and engaging PE experiences, reducing anxiety and promoting positive attitudes toward physical activity, ultimately encouraging healthier, more active students.

5. References

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