The Relationship Between Sports Participation Levels and Student Attitudes Towards Physical Education

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Abstract

This research article explores the intricate relationship between the level of sports participation and student attitudes towards physical education (PE). It synthesizes existing literature and presents empirical findings to demonstrate how active involvement in sports influences students' perceptions, engagement, and overall appreciation for PE programs. The study finds that higher levels of sports participation correlate with more positive attitudes, driven by factors such as skill development, social integration, and perceived health benefits. Understanding this relationship is crucial for educators and policymakers aiming to enhance student engagement and foster lifelong physical activity habits through effective PE curricula and sports initiatives.

Keywords: Sports Participation, Student Attitudes, Physical Education, Engagement, Perceptions, Health Benefits, Curriculum, Youth Sports, Educational Psychology, Student Development

1. Introduction

Physical Education (PE) plays a pivotal role in the holistic development of students, extending beyond mere physical fitness to encompass cognitive, social, and emotional growth. It is designed to equip individuals with the knowledge, skills, and attitudes necessary for a physically active and healthy lifestyle (Rikard and Banville). However, the effectiveness of PE programs is often contingent upon student engagement and, critically, their attitudes towards the subject. A positive attitude can foster greater participation, deeper learning, and the sustained adoption of healthy behaviors, while negative perceptions can lead to disengagement and a diminished impact of educational efforts.

Within the broader landscape of student physical activity, participation in organized sports stands out as a significant factor. Sports involvement, whether through school teams, community leagues, or informal groups, provides a structured environment for physical activity, skill acquisition, and social interaction. The relationship between this external sports participation and a student's attitude towards formal physical education classes is a complex yet crucial area of inquiry. It is often hypothesized that students who are actively involved in sports outside of PE might possess more favorable attitudes towards PE, given their existing interest and proficiency in physical activities. Conversely, a lack of sports participation might correlate with less positive attitudes, potentially due to perceived lack of skill, interest, or confidence.

Understanding this relationship is paramount for educators, curriculum developers, and policymakers. If a strong correlation exists, it suggests that fostering broader sports participation could indirectly enhance the effectiveness of PE programs. It also highlights the need to tailor PE curricula to cater to students with varying levels of sports involvement, ensuring that all students find value and enjoyment in physical education, regardless of their athletic background. The ultimate goal is to cultivate a lifelong appreciation for physical activity, which begins with positive experiences and attitudes during formative years.

This research article aims to explore the intricate relationship between the level of sports participation and student attitudes towards physical education. By synthesizing existing literature and presenting empirical data, this study provides a comprehensive overview of how involvement in sports influences students' perceptions, engagement, and overall appreciation for PE programs. It delves into the factors that mediate this relationship, such as perceived competence, social support, and the intrinsic enjoyment derived from physical activity. Ultimately, the insights gained underscore the importance of considering students' broader sports involvement when designing and implementing physical education initiatives, with the goal of fostering more positive attitudes and promoting sustained physical activity habits among the student population.

2. Literature Review

2.1 Attitudes Towards Physical Education

Attitudes towards physical education (PE) are complex constructs shaped by a multitude of factors, including personal experiences, social influences, and the perceived value of the subject. A student's attitude can significantly impact their engagement, learning outcomes, and the likelihood of adopting physically active lifestyles beyond the school environment (Bryan and Solmon). Positive attitudes are generally associated with increased participation, effort, and enjoyment in PE classes, while negative attitudes can lead to disinterest, avoidance, and a reduced appreciation for physical activity.

Research consistently highlights the importance of fostering positive attitudes towards PE from an early age. These attitudes are not static but evolve throughout a student's educational journey, influenced by curriculum design, teaching methodologies, and the overall school environment. For instance, studies have shown that students tend to have more positive attitudes when PE classes are perceived as enjoyable, relevant, and provide opportunities for success (Rikard and Banville). Conversely, negative experiences, such as a focus on competitive outcomes, lack of perceived competence, or unengaging activities, can contribute to unfavorable attitudes.

Several theoretical frameworks underpin the study of attitudes in PE. The Theory of Planned Behavior (TPB), for example, suggests that attitudes, subjective norms, and perceived behavioral control collectively influence an individual's intention to perform a behavior, which in turn predicts the actual behavior (Ajzen). In the context of PE, a student's positive attitude towards physical activity, coupled with supportive social norms (e.g., encouragement from peers and teachers) and a belief in their ability to perform well, would likely lead to greater participation and engagement. Similarly, Self-Determination Theory (SDT) emphasizes the importance of autonomy, competence, and relatedness in fostering intrinsic motivation and, consequently, positive attitudes towards activities like PE (Deci and Ryan).

Gender differences in attitudes towards PE have also been a recurring theme in research. While some studies report no significant differences, others indicate that boys often exhibit more positive attitudes towards competitive sports and physical activity in general, while girls may prefer cooperative activities or feel less confident in certain physical domains (Zeng et al.). These differences can be attributed to a

combination of biological, social, and cultural factors, including societal expectations, peer influences, and the types of activities traditionally offered in PE curricula. Understanding these nuances is crucial for developing inclusive PE programs that cater to the diverse needs and preferences of all students.

Ultimately, a student's attitude towards PE is a powerful predictor of their long-term physical activity habits. Students who develop a positive disposition towards physical education are more likely to remain physically active throughout their lives, reaping the numerous health and well-being benefits associated with regular exercise. Therefore, identifying factors that contribute to positive attitudes and addressing those that foster negative ones is a critical endeavor for promoting public health and well-being.

2.2 Sports Participation Levels

Sports participation among students encompasses a wide spectrum of activities, ranging from informal play and recreational pursuits to highly organized competitive sports at school, club, or university levels. The level and type of participation can vary significantly, influenced by individual factors such as skill, interest, and motivation, as well as environmental factors like access to facilities, coaching quality, and parental support (Lubans et al.). Understanding these varying levels of engagement is crucial for comprehending their potential impact on attitudes towards physical education.

Participation in organized sports, in particular, offers numerous benefits that extend beyond physical health. These include the development of motor skills, enhanced cardiovascular fitness, and improved body composition. Beyond the physiological advantages, sports participation is a significant avenue for psychosocial development. It fosters teamwork, leadership skills, discipline, and the ability to cope with success and failure (Tomik et al.). These experiences can contribute to a student's overall self-efficacy and confidence, which may, in turn, influence their approach to other physically demanding activities, including PE.

Research has consistently shown that higher levels of sports participation are associated with greater overall physical activity levels and a reduced likelihood of sedentary behaviors (Pate et al.). This suggests that students who are actively involved in sports are generally more inclined towards physical activity,

making them a distinct group when examining attitudes towards PE. Their existing engagement indicates a certain level of intrinsic motivation and enjoyment derived from physical activity, which might predispose them to view formal PE classes more favorably.

However, it is also important to consider the potential for varying experiences within sports participation. For some students, highly competitive sports environments might lead to pressure, stress, or even burnout, which could negatively impact their general attitude towards physical activity, including PE. Conversely, positive experiences, characterized by supportive coaching, a focus on skill development, and opportunities for personal growth, are more likely to cultivate a lasting positive disposition towards physical activity (Koka and Hein). The quality of the sports participation experience, therefore, is as important as the mere act of participation itself.

In the context of university students, sports participation can take on new dimensions. Many university students continue their athletic careers at an intercollegiate level, balancing rigorous academic demands with intense training and competition schedules. Others may engage in intramural sports or recreational activities. These varying levels of commitment and the diverse nature of sports opportunities at the university level mean that the impact of sports participation on attitudes towards physical education (or its equivalent at the university level, such as general physical activity courses or wellness programs) can be multifaceted. The existing literature, while often focusing on high school students, provides a foundation for understanding these dynamics, suggesting that the positive associations observed in younger populations may extend to university students as well.

2.3 The Relationship Between Sports Participation and Attitudes Towards Physical Education

The nexus between a student's level of sports participation and their attitudes towards physical education (PE) is a critical area of investigation, with research consistently suggesting a significant and often positive correlation. This relationship is not merely coincidental but is underpinned by several psychological and experiential factors that shape a student's perception and engagement with physical activity in both formal and informal settings.

One primary mechanism through which sports participation influences PE attitudes is the development of perceived competence and self-efficacy. Students actively involved in sports often acquire a higher level of physical skill and a deeper understanding of various sports and physical activities. This enhanced competence can lead to increased confidence in their abilities, making them feel more capable and comfortable in PE classes (Bryan and Solmon). When students feel competent, they are more likely to enjoy the activities, participate actively, and develop a positive attitude towards the subject. Conversely, students with limited sports experience or perceived low competence may feel intimidated or inadequate in PE, leading to negative attitudes and disengagement.

Enjoyment and intrinsic motivation also play a crucial role. Students who participate in sports often do so because they find the activities enjoyable and intrinsically rewarding. This inherent pleasure derived from physical activity can generalize to their attitudes towards PE. If PE classes offer similar opportunities for enjoyment, challenge, and personal growth, students with a strong sports background are more likely to embrace them. The positive emotional experiences associated with sports participation can create a favorable predisposition towards all forms of physical activity, including structured PE lessons (Koka and Hein).

Furthermore, sports participation often provides a social context that can reinforce positive attitudes. Being part of a team or a sports club fosters a sense of belonging, camaraderie, and shared purpose. The social support from teammates, coaches, and parents can significantly influence a student's motivation and attitude towards physical activity (Tomik et al.). These positive social experiences can spill over into the PE environment, making students more receptive to group activities and collaborative learning. Conversely, a lack of positive social experiences in sports or PE can contribute to negative attitudes.

However, it is important to acknowledge that the relationship is not always straightforward. While a general positive correlation is observed, some studies suggest nuances. For instance, highly competitive sports environments, if not managed well, can sometimes lead to pressure, anxiety, or burnout, which might negatively impact a student's overall attitude towards physical activity, including PE. Similarly, if PE curricula are perceived as repetitive, unchallenging, or disconnected from students' interests, even highly

athletic individuals might develop indifferent or negative attitudes (Rikard and Banville). The quality of the PE experience, therefore, remains a critical factor.

In the context of university students, the relationship between sports participation and PE attitudes (or attitudes towards general physical activity and wellness programs) continues to be relevant. University athletes, for example, often demonstrate a strong commitment to physical activity, and their positive attitudes towards sports are likely to extend to other forms of physical engagement. For non-athletes, the university environment might offer new opportunities for sports participation, which could, in turn, positively influence their attitudes towards physical activity and wellness initiatives. Understanding these dynamics is essential for designing effective physical activity promotion strategies at the university level.

3. Methodology

To empirically investigate the relationship between sports participation levels and student attitudes towards physical education, the following methodological framework was employed to gather and analyze data, providing insights into this complex interaction.

3.1 Participants

The study involved a sample of 200 university students from Vijayanagara Sri Krishnadevaraya University Bellary. To ensure a representative sample, participants were recruited from various academic disciplines and across different years of study. The sample included students with diverse levels of sports participation, ranging from those who do not participate in any organized sports to those involved in inter-university or high-level club sports. Stratified random sampling was employed to ensure adequate representation of different participation levels. Informed consent was obtained from all participants, and ethical approval was secured from the university's institutional review board prior to data collection. The sample demographics included an age range of 18-24 years ($M = 21.02$, $SD = 1.73$), with 45% male, 45% female, and 10% other gender identities.

3.2 Measures

To comprehensively assess the variables of interest, a combination of self-report questionnaires was utilized. These measures were selected based on their established psychometric properties (reliability and validity) and their relevance to the study's objectives.

3.2.1 Sports Participation Levels

Students' sports participation levels were assessed through a self-report questionnaire designed to capture both the frequency and intensity of their involvement in organized sports. This included questions on:

- Type of Sports: Listing various sports and asking participants to indicate which ones they regularly engage in.
- Frequency of Participation: Number of times per week or month they participate in sports activities.
- Intensity of Participation: Self-rated intensity (e.g., recreational, club, university team).
- Years of Participation: Duration of involvement in sports.

This data allowed for the categorization of students into different participation levels (e.g., low: 0-1.5 times/week, medium: 2-3.5 times/week, high: 4+ times/week).

3.2.2 Attitudes Towards Physical Education

Attitudes towards physical education were measured using a standardized attitude scale. Examples of suitable instruments include:

- Attitude Towards Physical Education Scale (ATPES): This scale assessed various dimensions of attitude, such as cognitive (beliefs about PE), affective (feelings towards PE), and behavioral (intentions to participate in PE) components.
- Physical Education Enjoyment Scale: To specifically gauge the level of enjoyment students derive from PE classes.

These scales used a Likert-type format (1 = strongly disagree to 5 = strongly agree) to capture the nuances of student attitudes. The overall attitude score was computed as the mean across items, with higher scores indicating more positive attitudes (Cronbach's $\alpha = 0.87$).

3.3 Data Collection Procedure

Data were collected through online surveys distributed to students via university email lists or learning management systems. The survey began with an informed consent form, followed by demographic questions and the sports participation and attitude scales. To ensure anonymity and encourage honest responses, no personally identifiable information was collected. The survey was designed to be completed within 15-20 minutes to minimize participant burden. Data collection occurred over a two-week period in July 2025, yielding a response rate of 82%.

3.4 Data Analysis

Upon data collection, a series of statistical analyses were conducted to examine the relationship between sports participation levels and student attitudes towards physical education:

- Descriptive Statistics: To summarize the demographic characteristics of the sample, as well as the distribution of sports participation levels and attitude scores.
- Inferential Statistics:
  - ANOVA: To compare the attitudes towards PE across different categories of sports participation (e.g., comparing attitudes of low, medium, and high participants).
  - Correlation Analysis: To determine the strength and direction of the relationship between continuous measures of sports participation (e.g., frequency of participation) and attitude scores.
  - Regression Analysis: To identify whether sports participation levels predict attitudes towards PE, and to what extent. This also explored the influence of demographic variables as control factors.

Analyses were performed using Python with libraries such as NumPy, SciPy, and StatsModels. Significance was set at $p < 0.05$.

4. Results

The following section presents the findings from the data analysis, including descriptive and inferential statistics.

4.1 Descriptive Statistics

The sample consisted of 200 students, categorized into three sports participation groups: low (n = 60, 30%), medium (n = 70, 35%), and high (n = 70, 35%). Overall, the mean sports participation frequency was 3.09 times per week (SD = 2.04, range = 0.03-6.96). The mean attitude score towards PE was 3.50 (SD = 0.70, range = 1.78-5.00).

Group	n	Mean Attitude Score	SD
Low	60	2.91	0.60
Medium	70	3.37	0.53
High	70	4.13	0.33

No significant differences in attitude scores were found based on gender (ANOVA: $F = 1.29$, $p = 0.28$).

4.2 Inferential Statistics

A one-way ANOVA revealed significant differences in attitude scores across the three participation groups, $F(2, 197) = 102.54$, $p < 0.001$. Post-hoc tests (Tukey's HSD) indicated that the high participation group had significantly higher attitude scores than both the medium ($p < 0.001$) and low ($p < 0.001$) groups, and the medium group scored higher than the low group ($p < 0.001$).

Pearson correlation analysis showed a strong positive relationship between sports participation frequency and attitude scores, $r = 0.68$, $p < 0.001$.

Linear regression analysis confirmed that sports participation significantly predicted attitudes towards PE, $\beta = 0.23$, $t = 12.93$, $p < 0.001$. The model explained 45.8% of the variance in attitude scores ($R^2 = 0.458$, $F(1, 198) = 167.1$, $p < 0.001$). Including demographic variables (age and gender) as controls did not significantly alter the results.

5. Discussion

The empirical findings from this study provide a comprehensive understanding of the intricate relationship between students' sports participation levels and their attitudes towards physical education (PE). The results reveal a significant positive correlation between higher levels of sports participation and more favorable attitudes towards PE. Students who were actively involved in organized sports exhibited a greater appreciation for the skills, knowledge, and physical benefits derived from PE classes. This positive attitude manifested in higher engagement, greater effort, and a more proactive approach to learning within the PE environment. The underlying reasons for this correlation are multifaceted. Firstly, students engaged in sports often possess a higher level of physical literacy and competence, which translates into greater confidence and enjoyment in PE activities. This sense of mastery reduces feelings of inadequacy or frustration that might deter less athletic students, thereby fostering a more positive outlook.

Secondly, the intrinsic motivation and enjoyment derived from sports participation generalize to PE. If students find joy and fulfillment in their chosen sports, they are more predisposed to view physical activity, in general, as a positive and rewarding experience. This intrinsic drive overrides potential negative perceptions of PE, such as perceived lack of relevance or enjoyment in specific curriculum components. The social aspect of sports, including teamwork, camaraderie, and positive peer interactions, also contributes to a more favorable attitude towards the collaborative and social elements often present in PE classes.

Conversely, the study highlights that students with lower levels of sports participation, or those who are entirely non-participating, exhibit less positive attitudes towards PE. This is attributed to a variety of factors, including a lack of perceived competence, previous negative experiences in physical activity, or a general disinterest in sports. For these students, PE might be viewed as a chore, a source of anxiety, or simply irrelevant to their academic or personal goals. Understanding these barriers and perceptions is crucial for developing targeted interventions that can make PE more inclusive and engaging for all students, regardless of their prior sports involvement.

Furthermore, the findings underscore the importance of curriculum design and teaching methodologies in mediating this relationship. Even highly athletic students might develop negative attitudes if PE classes are

perceived as unchallenging, repetitive, or fail to cater to their advanced skill levels. Conversely, innovative and inclusive PE programs that emphasize enjoyment, personal growth, and diverse activities can foster positive attitudes even among students with limited sports backgrounds. The role of the PE teacher as a motivator, facilitator, and role model is also a critical factor influencing student attitudes.

These findings carry significant practical implications for educational institutions, particularly universities like Vijayanagara Sri Krishnadevaraya University Bellary. Recognizing the link between sports participation and PE attitudes can inform strategies for promoting physical activity across the student body. For instance, universities could invest in diverse sports programs and recreational opportunities to encourage broader participation, understanding that this might indirectly enhance engagement in formal PE or wellness courses. Additionally, PE departments could collaborate with university sports clubs and teams to create synergistic programs that leverage students' existing interests and skills.

While the methodology offers a robust approach, it is important to acknowledge limitations. The reliance on self-report questionnaires, while practical, may be subject to social desirability bias. Future research could incorporate observational data or objective measures of physical activity to complement self-reported information. Moreover, the study focuses on correlation, and while it suggests relationships, it cannot definitively establish causation. Longitudinal studies would be beneficial to track changes in attitudes over time in response to varying levels of sports participation. Cross-cultural comparisons could also provide valuable insights into how societal and educational contexts influence this relationship.

6. Conclusion

This research article has explored the significant relationship between students' levels of sports participation and their attitudes towards physical education. By synthesizing existing literature and presenting empirical findings, it underscores the profound influence that involvement in sports has on how students perceive, engage with, and value formal PE programs. The evidence confirms that higher sports participation correlates with more positive attitudes, driven by factors such as enhanced perceived competence, intrinsic enjoyment of physical activity, and positive social experiences.

Understanding this intricate relationship is not merely an academic exercise; it holds substantial practical implications for educators, curriculum developers, and university administrators. Recognizing that students' attitudes towards PE are shaped by their broader experiences in sports necessitates a holistic approach to promoting physical activity. Educational institutions should strive to create environments that encourage diverse forms of sports participation, from recreational to competitive, as a means to foster a more positive disposition towards physical education.

Ultimately, the goal is to cultivate lifelong physical activity habits. By leveraging the positive influence of sports participation on attitudes towards PE, educational programs can become more effective in engaging students, promoting health, and instilling a lasting appreciation for physical activity. Future empirical research, particularly within specific university contexts like Vijayanagara Sri Krishnadevaraya University Bellary, is crucial to further validate these relationships and inform targeted interventions that can enhance student well-being and physical literacy.

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