THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE, ANXIETY, AND SELF-EFFICACY AMONG PHYSICAL EDUCATION STUDENTS: A REVIEW

Sukanta Das
Research Scholar, Central University of South Bihar, Department of Physical Education, Gaya, Bihar, India
Sukantadas675@gmail.com

Prof. Usha Tiwari
Professor, Central University of South Bihar Department of Physical Education, Gaya, Bihar, India
ushatiwari@cusb.ac.in

Abstract
Objective: *This study systematically reviews the relationship between emotional intelligence (EI), self-efficacy, and anxiety among physical education (PE) and sport students. The aim is to understand how these psychological constructs interact to influence students' motivation, performance, and well-being, and to identify implications for coaching and educational practice.* ***Methods:*** *This review synthesizes findings from studies published between 2010 and 2024, examining the interrelationships among EI, self-efficacy, and anxiety in the context of sports education.* ***Result:*** *The review revealed a strong positive relationship between EI and self-efficacy, where higher EI was consistently associated with greater confidence and resilience in students. A significant negative relationship was observed between EI and both somatic and cognitive anxiety, with higher EI linked to lower anxiety levels. Furthermore, self-efficacy and anxiety demonstrated an inverse relationship, suggesting that enhanced self-confidence reduces anxiety while lower anxiety further supports self-efficacy.* ***Findings:*** *These findings emphasize the importance of incorporating EI-focused interventions, such as emotional regulation and mindfulness training, into physical education and sport curricula to enhance psychological resilience, reduce performance-related anxiety, and promote academic and athletic outcomes.* ***Conclusion****: This review confirms a strong positive relationship between emotional intelligence and self-efficacy, and a negative relationship between emotional intelligence and anxiety among physical education and sport students. Enhancing EI, particularly through targeted training, can strengthen self-efficacy and reduce anxiety, supporting better performance and well-being.*
Keywords: *Emotional intelligence, self-efficacy, anxiety, psychological resilience, physical education, well-being, sports psychology*

Introduction

Emotional intelligence (EI), self-efficacy, and anxiety are crucial psychological factors that impact the performance and well-being of physical education and sport students. EI, defined as the ability to perceive, manage, and regulate emotions, plays a role in stress management and interpersonal interactions. Self-efficacy, the belief in one's capability to execute specific tasks, influences motivation and performance outcomes. Anxiety, on the other hand, can negatively impact performance and self-confidence. Understanding how these constructs interact is essential for enhancing student experiences in sports education.

Research exploring the relationship between emotional intelligence (EI), anxiety, and self-efficacy in physical education and sport students has gained significant attention in sports psychology. Emotional intelligence, defined as the ability to identify, understand, and regulate one's own emotions and those of others, is considered a key factor in managing stress and enhancing performance, particularly in high-pressure contexts like sports and physical education. Anxiety, often characterized by negative feelings and tension arising from perceived challenges, can influence performance either positively or negatively depending on its intensity and the individual's ability to cope.

Studies consistently suggest that higher emotional intelligence is associated with better emotional regulation, which can mitigate the detrimental effects of anxiety on performance. For instance, students with strong EI skills, such as self-awareness and emotional management, tend to exhibit greater self-confidence, a factor positively linked to performance. Conversely, anxiety, particularly somatic anxiety (physical symptoms like increased heart rate), often correlates negatively with performance, as it can disrupt focus and physical execution. However, moderate levels of anxiety are sometimes seen as beneficial, aligning with theories like the Inverted-U hypothesis, where optimal arousal enhances performance.

The interplay between psychological factors and performance has long been a focal point in the fields of physical education (PE) and sports science. Among these factors, emotional intelligence (EI), anxiety, and self-efficacy stand out as critical determinants of how students navigate the physical, academic, and emotional

demands of their training and competition environments.

Emotional intelligence, defined as the ability to perceive, understand, and manage one's own emotions and those of others, has emerged as a key predictor of adaptive functioning in high-pressure settings. Anxiety, a common emotional response to stress, can either hinder or, in some cases, enhance performance depending on its intensity and the individual's capacity to cope. Self-efficacy, the belief in one's ability to succeed in specific tasks, serves as a foundational element of motivation and resilience, particularly in the physically and mentally challenging contexts of PE and sport.

For students in physical education and sport programs, these constructs are especially relevant. Whether mastering complex motor skills in a classroom setting or competing on the field, these individuals face unique stressors—performance expectations, physical fatigue, and social dynamics—that test their psychological resources. Research suggests that higher EI may equip students to regulate anxiety and bolster self-efficacy, potentially leading to improved academic outcomes and athletic success.

This study aims to explore the relationship between emotional intelligence, anxiety, and self-efficacy among physical education and sport students, with an eye toward synthesizing existing findings and identifying avenues for future research. By examining these psychological constructs, we seek to uncover their individual and collective impacts on students' well-being and performance.

This relationship underscores the potential of integrating social and emotional learning programs into physical education and sports training. Such programs could enhance students' ability to handle anxiety, boost self-confidence, and ultimately improve their performance, whether in a gym class or on the field. While more longitudinal and experimental research is needed to solidify these connections, the evidence to date points to a meaningful link worth exploring further.

Review of Related Literature

Shengyao et al. (2024). A survey was conducted among 518 students, and structural equation modelling was used to analyse the data. The study found that emotional intelligence was positively related to positive psychological characteristics, psychological well-being, and academic achievement, and the effects were stronger among postgraduate students. Also, positive psychological characteristics, which include self-efficacy, motivation, and resilience, mediate the relationship between emotional intelligence and psychological well-being and academic achievement, and the relationship was stronger among postgraduate students. Proper coping strategies and mechanisms can be helpful to improve both psychological well-being and academic achievement at the same time among university students.

Zoghlami et al. (2023).This cross-sectional study was conducted on a sample of 350 students attending the physical education exam in the year 2021–2022. Analysis of the correlations between the scores of Emotional intelligence and anxiety showed that self-confidence was positively correlated with all dimensions of Emotional intelligence (Beta = 0.524; $p = 0.000$). Multivariate linear regression analysis showed that the most related items to performance were self-confidence in a positive direction ($r = 0.56$; $p = 0.000$) and negatively with somatic anxiety ($r = -0$, 39; $p = 0.000$).

Mercader-Rubio, I et al (2023). The main objective of this research is to analyze the levels of each of the dimensions of emotional intelligence (attention, clarity, and emotional regulation) and their relationship with each of the SCAT items to measure pre-competitive anxiety. To do so, we analyzed the influence that one psychological construct has on the other, in order to establish the type of relationships that are established between them. The design of this research corresponds to be transversal, observational, quantitative, and descriptive. The sample consisted of 165 students belonging to university degrees (bachelor's and master's) related to physical activity and sport sciences. The main finding of this study allows us to affirm the relationship between emotional intelligence and anxiety. This confirms the hypothesis that anxiety is an indispensable component of any competitive situation, and that neither the total absence of anxiety nor high levels of it leads to better sports performance. Therefore, sport psychology should focus on the emotional preparation of athletes so that they can manage and control their anxiety at intermediate levels, which in addition to being typical of a competitive situation, is also synonymous with good sporting performance.

Quílez Robres, Alberto et al. (2023). The main aim of this meta-analytical study is to investigate the relationship between academic performance and emotional intelligence. The study also addresses the role played by certain moderating factors, such as age, sex, country, and geographical region, type of performance and psycho-developmental stage of individuals. A thorough review of the existing literature was undertaken, comprising 27 articles, 28 samples and 13,909 participants. The study was based on PRISMA protocols and consensus be-tween the participating scientists. The results

suggest that emotional intelligence is a valuable to predict academic performance, as it was shown to have a significant moderate-high effect size (r =0.390 and p <0.001).

Karkada, Ivan et al. (2020). The literature review cited 511 relevant articles. These articles are further scrutinized by removing duplicates, considering full text articles, and abstract review availed 07 articles which were considered for final review. It was found that six out of seven showed women had higher EI than men and only one of the seven showed no difference between men and women. Emotional intelligence (EI), in general, improves academic performance. However, in contrast it is also seen among medical students the EI decreasing over the time of study years. Further research is necessary to find out the cause for this decline in emotional intelligence during the course and whether timely intervention of structured training can improve or not.

Ubago-Jiménez, J. L. (2019). At present, knowledge of physical and cognitive aspects is essential in the sporting context. Faced with this situation, the control and knowledge of emotions has a person on himself and on others, affects the sporting action. The aim of this work is to examine the relationship between emotional intelligence and the practice of physical activity. Through a review in databases such as the Web of Science and Scopus that contain the terms of emotional intelligence along with the parameters of physical activity and sport. Twenty-four articles comprised the sample for further analysis. By way of conclusion it can be said that the main field of study of emotional intelligence related to the practice of physical activity is educational. Likewise, emotional intelligence is a determining factor in the improvement of sports competences.

Bhat, Sajad et al. (2017). The results also suggested that there is no significant difference between the emotional intelligence in terms of gender (t=0.790, p=.433) But there is a significant difference between in level of anxiety across gender with males scoring slightly higher than females (t=2.172, p=.035). Students high on the dimension of emotional intelligence showed more maturity towards the stressful situations than subjects low on emotional intelligence thus experiencing less anxiety.

Laborde, S., et al. (2016). This review targets emotional intelligence (EI) in sport and physical activity. We systematically review the available literature and offer a sound theoretical integration of differing EI perspectives (the tripartite model of EI) before considering applied practice in the form of EI training. Our review identified 36 studies assessing EI in an athletic or physical activity context. EI has most often been conceptualized as a trait. In the context of sport performance, we found that EI relates to emotions, physiological stress responses, successful psychological skill usage, and more successful athletic performance. In the context of physical activity, we found that trait EI relates to physical activity levels and positive attitudes toward physical activity.

Karagozoglu, Cengiz. et al. (2013). This study aims to retrieve the relationship between emotional intelligence, social physique anxiety and life satisfaction among physical education students whom engaged to all kinds of sport activities and a physically active population. 141 students, 89 male (%63.1) and 52 female (%36.9), average age=21.6 participated to the study and completed Schutte Emotional Intelligence Scale, Social Physique Anxiety Scale (SPAS) and The Satisfaction with Life Scale. Students with high appraisal of emotions score have lower life satisfaction. Students with high social physique anxiety (SPA) have high positive emotional intelligence (EI) total score and appraisal of emotions score but negative correlation found with life satisfaction score and SPA. Results show that gender doesn't have a direct effect on SPA, a Univariate ANOVA conducted to reveal the difference between gender group, EI group and SPA. According to results, gender & EI has an important effect on SPA. Female students with high EI level have a higher SPA than lower EI group of both males and female

Methodology

Data analysis

A literature search was conducted in databases including PubMed, Scopus, Web of Science, and Google Scholar. Keywords used included "emotional intelligence in sports," "self-efficacy in physical education," "anxiety in sport students," and "psychological factors in sports education." Inclusion criteria were peer-reviewed studies published in English between 2010 and 2024 that examined the relationship between at least two of these variables among physical education and sport students.

Results of the study

1. Emotional Intelligence and Self-Efficacy

Studies show that students with higher Emotional Intelligence have more confidence in their abilities, known as self-efficacy. Emotional Intelligence helps with better control of emotions, which in turn boosts confidence. There is a strong positive relationship between higher Emotional Intelligence and greater self-efficacy. The current study found a significant positive link between Emotional

Intelligence and self-efficacy, and previous research are proved the same Result.

2. Emotional Intelligence and Anxiety

A negative relationship is found between Emotional Intelligence and levels of anxiety. Students who possess higher Emotional Intelligence are better equipped to handle stress and pressure from competition. The findings indicated that there is a negative relationship between emotional intelligence and anxiety.

Somatic Anxiety and Emotional Intelligence

The negative relationship across all Emotional Intelligence dimensions highlights that lower Emotional Intelligence is broadly associated with heightened physical manifestations of anxiety, which could impair motor skills or endurance in sports contexts.

Cognitive Anxiety and Emotional Intelligence

Somatic anxiety, cognitive anxiety correlates negatively with all Emotional Intelligence dimensions, pointing to a general trend: lower Emotional Intelligence exacerbates mental stress, which could detract from performance by clouding judgment or concentration.

3. Self-Efficacy and Anxiety

Physical activity shows a significant positive correlation with both life satisfaction and self-efficacy. In contrast, anxiety is significantly negatively correlated with physical activity, life satisfaction, and self-efficacy. These relationships highlight meaningful associations among the variables, suggesting that life satisfaction and self-efficacy may serve as important factors in the link between physical activity and anxiety. A reciprocal relationship is observed where higher self-efficacy reduces anxiety, and lower anxiety enhances self-efficacy.

Findings of the study

Studies often find that higher Emotional Intelligence is associated with greater self-efficacy among Physical Education and sport students. Students with strong emotional awareness and regulation skills tend to feel more confident in their ability to perform physical tasks or succeed in competitive settings. For example, the ability to manage emotions during high-pressure situations (e.g., a sports match) boosts perceived competence.

Research frequently shows that students with higher Emotional Intelligence experience lower levels of anxiety. Findings consistently indicate that elevated anxiety undermines self-efficacy. Students who experience intense anxiety (e.g., performance anxiety or fear of failure) often doubt their capabilities, leading to reduced confidence in their physical and athletic skills. This effect may be more pronounced in competitive or evaluative contexts.

Implications for Physical Education and Sport Students

These findings suggest that training programs targeting Emotional Intelligence especially emotional management and utilization could enhance self-confidence and reduce anxiety, potentially improving performance outcomes. For example, techniques like mindfulness or emotional regulation strategies might help students mitigate somatic symptoms (e.g., calming a racing heart) and cognitive worries (e.g., silencing self-doubt) during competitions or evaluations. The negative correlation between Emotional Intelligence and anxiety also underscores that students with lower Emotional Intelligence might need extra support to cope with stress in these high-stakes environments.

This analysis aligns with broader research trends, offering a quantitative foundation for understanding how EI dimensions interact with anxiety and confidence. It invites further investigation into how these correlations play out in real-world settings and whether they hold across diverse student groups or performance contexts.

Future Research Scope

The relationship between emotional intelligence (EI), anxiety, and self-efficacy in physical education (PE) and sport students is a promising area for future research, given its implications for academic performance, mental health, and athletic success. While some studies link EI, anxiety, and self-efficacy to performance, more research is needed to clarify their combined effect on both academic outcomes (e.g., grades in PE courses) and athletic achievements (e.g., competition results). Combining psychological self-reports with physiological data (e.g., heart rate variability, cortisol levels) could provide a more holistic view of anxiety's impact on PE and sport students. This approach could validate subjective measures of anxiety and explore how EI and self-efficacy correlate with biological stress responses during physical tasks or competitions.

Discussion

The findings highlight the importance of Emotional Intelligence development in sports education. Training programs incorporating Emotional Intelligence enhancement techniques, such as mindfulness and stress management, can potentially improve self-efficacy and reduce anxiety. Furthermore, coaches and educators should focus on fostering a supportive environment to promote psychological well-being among students.

According to our findings, somatic anxiety was associated with performance in a negative direction which is consistent with the literature (Mercader-Rubio et al., 2023. A meta-analysis investigation by Kopp and Jekauc (2018) concluded that a person high in Emotional Intelligence is good at recognizing and regulating emotions of self and others, can enhance positive emotion, and channel away negative emotions in self and others.

Conclusions

The present results show positive correlations between self-efficacy and Emotional Intelligence, and more particularly with the sociability factor. Based on those relationships between teacher self-efficacy and positive teaching and learning outcomes, an Emotional Intelligence training with reference to the training sessions suggested by Nelis et al. (2009) could be adapted to the specific context of physical education teaching.

The review confirms a strong positive relationship between Emotional Intelligence and self-efficacy while other side strong negative relationship between emotional intelligence and anxiety in physical education and sport students. Future research should focus on longitudinal studies and intervention-based approaches to better understand causality and practical applications in sports education.

Reference

1. Bhat, Sajad & Khan, Tabasum. (2017).The Relationship of Emotional Intelligence with Anxiety among Students. International Journal of Research Culture Society. Volume-1. 10.31142/ijtsrd5778.
2. Castro-Sánchez M, Zurita-Ortega F, Ubago-Jiménez JL, González-Valero G, Chacón-Cuberos R. Relationships between Anxiety, Emotional Intelligence, and Motivational Climate among Adolescent Football Players. Sports (Basel). 2019 Feb 1;7 (2):34. doi: 10.3390/sports7020034. PMID: 30717251; PMCID: PMC6409893.
3. Quílez Robres, Alberto & Usán, Pablo & Lozano-Blasco, Raquel & Salavera, Carlos. (2023). Emotional Intelligence and Academic Performance: A Systematic Review and Meta-Analysis. Thinking Skills and Creativity. 49. 101355. 10.1016/j.tsc.2023.101355.
4. Gómez-Leal, Raquel & Holzer, Allison & Bradley, Christina & Fernández-Berrocal, Pablo & Patti, Janet. (2021). The relationship between emotional intelligence and leadership in school leaders: a systematic review. Cambridge Journal of Education. 52. 1-21. 10.1080/0305764X.2021.1927987.
5. Karkada, Ivan & D'Souza, Urban & Mustapha, Zainal. (2020). Relationship of Emotional Intelligence and Academic Performance among Medical Students: Systematic Review. Universal Journal of Educational Research. 8. 72-79. 10.13189/ujer.2020.081410.
6. Karagozoglu, Cengiz. (2013). Üngür, G., Karagözoğlu, C. (2013) The Relationship between Emotional Intelligence, Social Physique Anxiety and Life Satisfaction in Physical Education and Sports Students. International Journal of Humanities and Social Science Vol. 3 No. 13, 115-119.International Journal of Humanities and Social Science.
7. Karkada, Ivan & D'Souza, Urban & Mustapha, Zainal. (2020). Relationship of Emotional Intelligence and Academic Performance among Medical Students: Systematic Review. U Alberto Quílez-Robres, Pablo Usán, Raquel Lozano-Blasco, Carlos Salavera,
8. Kopp, A., & Jekauc, D. (2018). The Influence of Emotional Intelligence on Performance in Competitive Sports: A Meta-Analytical Investigation. Sports (Basel, Switzerland), 6(4), 175.
9. Laborde, S., Dosseville, F., & Allen, M. S. (2016). Emotional intelligence in sport and exercise: A systematic review. Scandinavian journal of medicine & science in sports, 26(8), 862–874.
10. Mercader-Rubio, I., & Ángel, N. G. (2023). The Importance of Emotional Intelligence in University Athletes: Analysis of Its Relationship with Anxiety. International journal of environmental research and public health, 20(5), 4224.
11. Nelson, H. R. P. H. R. P. U. B. K. (2020). Relationship of Emotional Intelligence and Academic Performance among Medical Students: Systematic Review. Universal Journal of Educational Research.
12. Samantha Donnelly, Kay Penny, Mary Kynn, The effectiveness of physical activity interventions in improving higher education students' mental health: A systematic review, Health Promotion International, Volume 39, Issue 2, April 2024, daae027,
13. Shengyao, Y., Xuefen, L., Jenatabadi, H.S. et al. Emotional intelligence impact on academic achievement and psychological well-being among university students: the mediating role of positive psychological characteristics. BMC Psychol 12, 389 (2024).
14. Ubago-Jiménez, J. L., González-Valero, G., Puertas-Molero, P., & García-Martínez, I. (2019). Development of Emotional Intelligence through Physical Activity and Sport Practice. A

Systematic Review. Behavioral Sciences, 9(4), 44.

15. Ubago-Jiménez, J. L., González-Valero, G., Puertas-Molero, P., & García-Martínez, I. (2019). Development of Emotional Intelligence through Physical Activity and Sport Practice. A Systematic Review. Behavioral sciences (Basel, Switzerland), 9(4), 44.
16. Zoghlami, W., Hawani, A., Khiari, H., Mnedla, S., Marsigliante, S., Elloumi, A., & Muscella, A. (2023). The relationship between emotional intelligence, anxiety, and performance in physical education and sport students. Frontiers in psychology, 14, 1236070.