
Beyond the Game: How Sports Motivation Fuels Physical Health and Psychological Resilience

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ABSTRACT

Sports participation has long been recognized as a significant contributor to both physical and mental well-being. However, the underlying motivational factors that drive this participation and their relationship with health outcomes remain underexplored in higher education contexts. This quantitative study investigates the relationship between sports motivation, physical health, and psychological resilience among college students. A sample of 120 undergraduate students (aged 18–23) from various disciplines was surveyed using standardized instruments: the Sports Motivation Scale (SMS), the Physical Health Self-Assessment Inventory (PHSAI), and the Connor-Davidson Resilience Scale (CD-RISC). Pearson correlation analysis revealed significant positive relationships between sports motivation and physical health ($r = 0.67, p < .01$), and between sports motivation and psychological resilience ($r = 0.72, p < .01$). Independent-samples t-tests indicated that students with high sports motivation demonstrated significantly greater physical health ($t = 4.85, p < .001$) and resilience ($t = 5.62, p < .001$) than those with low motivation. Findings underscore the critical role of sports motivation as a catalyst for holistic well-being and suggest that educational institutions should integrate motivational enhancement strategies into sports and physical education programs.



1. Introduction

Sports and physical activities go far beyond serving as leisure-time pursuits; they are essential to the comprehensive growth and development of individuals, impacting their physical, mental, emotional, and social well-being. The World Health Organization (2022) highlights regular physical exercise as a fundamental pillar of good health, as it significantly lowers the risk of chronic conditions such as heart disease, diabetes, obesity, and certain types of cancer. Participation in physical activities also strengthens muscles and bones, enhances metabolism, supports immune function, regulates body weight, and improves sleep quality. Together, these benefits promote higher energy levels and overall vitality, allowing individuals to lead more active and fulfilling lives. In addition to these physical advantages, sports offer substantial psychological and emotional benefits. Involvement in sports activities cultivates vital life skills such as discipline, teamwork, leadership, time management, and perseverance. Moreover, participation in regular physical activity contributes to improved mental well-being by boosting self-esteem, emotional control, and cognitive skills (Galli & Vealey, 2020). Sports also teach individuals how to manage stress, cope with anxiety, and develop resilience — the psychological strength needed to adapt and recover from challenges. These outcomes are especially important for college students, who often face academic pressure, identity formation issues, and social adaptation challenges during their transition to adulthood.

Motivation plays a central role in initiating and sustaining engagement in sports. It is the driving force behind an individual's willingness to participate, persist, and perform. Motivation is typically categorized as **intrinsic** (driven by internal satisfaction, enjoyment, or personal growth) or **extrinsic** (influenced by external factors such as rewards, recognition, or approval). According to Deci and Ryan's (2000) **Self-Determination Theory (SDT)**, intrinsic motivation promotes deeper involvement and long-term participation, while extrinsic motivation, though effective initially, must be internalized for sustained engagement. Thus, motivation not only influences the decision to participate in physical activities but also determines the intensity and consistency of involvement. The connection between sports motivation, physical health, and psychological resilience is a topic of increasing scholarly interest. Individuals with higher levels of motivation are more likely to adopt healthy behaviors, such as regular exercise and balanced nutrition, which enhance their physical well-being. These habits also contribute to greater psychological resilience — the ability to cope effectively with stress and adversity (Fletcher & Sarkar, 2016). Moreover, sports provide a sense of purpose, belonging, and social connection, which are closely linked to improved mental health outcomes.



Despite its importance, this relationship has not been thoroughly examined, particularly in the context of Indian college students. Existing research has often focused on these factors independently rather than exploring their combined effects. Since college students are at a developmental stage marked by competing academic, social, and personal demands, understanding how motivation influences their physical and psychological health is especially relevant.

The present study seeks to address this gap by investigating how sports motivation impacts physical health and psychological resilience among undergraduate students. By examining these dimensions collectively, the study aims to enrich the existing body of literature, provide evidence-based recommendations for policy and curriculum development in higher education, and inform the design of targeted mental health interventions. Ultimately, the research underscores the role of sports motivation as a powerful tool for promoting comprehensive student well-being.

2. Review of Literature

2.1 Sports Motivation and Physical Health

Research consistently demonstrates that individuals with higher levels of motivation participate more regularly in physical activity, which contributes to enhanced cardiovascular efficiency, increased muscular strength, and improved metabolic processes (Biddle et al., 2019). Intrinsic motivation — driven by enjoyment, self-satisfaction, and personal growth — is particularly influential in sustaining long-term participation and achieving favorable health outcomes compared to extrinsic motivators (Standage et al., 2021). For instance, Deci and Ryan (2000) found that when individuals engage in sports out of intrinsic interest rather than external pressure, they are more likely to maintain consistent physical activity habits over time. Similarly, Teixeira et al. (2012) reported that motivational quality, particularly self-determined forms of motivation, predicts adherence to exercise programs and overall fitness improvements. More recently, Ntoumanis et al. (2021) emphasized that motivation not only influences the frequency and intensity of physical activity but also mediates its psychological benefits, including increased well-being and reduced stress levels. Collectively, these findings highlight the critical role of motivation — especially intrinsic motivation — in sustaining healthy behaviors and maximizing the physical and psychological benefits of sports participation.

2.2 Sports Motivation and Psychological Resilience

Participation in sports plays a significant role in fostering psychological resilience — the capacity to adapt, recover, and thrive despite adversity and challenges (Fletcher & Sarkar, 2016). Regular



involvement in physical activities provides individuals with opportunities to face setbacks, develop coping mechanisms, and build mental toughness. Motivation is a key factor in strengthening this relationship, as it drives perseverance, encourages goal-directed behavior, and enhances the ability to cope with stress (Gucciardi et al., 2018). Research indicates that motivated athletes are more likely to approach challenges with a growth mindset, demonstrating higher levels of psychological flexibility, emotional regulation, and self-efficacy. For example, Galli and Vealey (2020) found that athletes who exhibit strong internal motivation are better equipped to bounce back from performance setbacks and maintain positive mental health outcomes. Similarly, Hosseini and Besharat (2010) showed that sports participation significantly improves resilience and psychological well-being, particularly when individuals are driven by intrinsic motives rather than external pressures. Furthermore, Sarkar and Fletcher (2017) highlighted that motivation not only influences an athlete's capacity to withstand competitive stressors but also plays a crucial role in developing cognitive strategies that enhance mental strength over time.

These findings suggest that motivation is not merely a driver of athletic engagement but also a fundamental psychological resource that supports resilience-building. Through continuous goal setting, adaptive coping, and self-determination, motivated individuals cultivate the mental endurance required to navigate obstacles both in sport and in broader life contexts.

2.3 College Students and Well-being

College students navigate a critical developmental period marked by significant transitions and challenges. They frequently grapple with academic workload, social pressures, identity formation, and the responsibility of managing their independence, all of which can contribute to elevated stress levels and mental health concerns. Such pressures, if unmanaged, can lead to anxiety, depression, and diminished life satisfaction. In this context, engagement in sports and physical activities emerges as an effective coping mechanism, offering psychological, emotional, and social benefits that extend beyond physical fitness. Participation in organized sports or regular exercise has been shown to reduce stress, enhance mood, and promote overall psychological well-being (Holt et al., 2020). Moreover, sports activities foster essential life skills — including teamwork, leadership, self-discipline, and time management — which further equip students to handle academic and personal challenges.

Motivation plays a crucial role in amplifying these benefits. When students are intrinsically motivated, driven by enjoyment, personal growth, or a desire to improve, they are more likely to maintain consistent involvement in sports, even when faced with competing demands such as academic deadlines or social



obligations. This sustained engagement leads to numerous positive outcomes, including higher levels of self-esteem, improved emotional regulation, and enhanced resilience. Research by Miller and Hoffman (2021) suggests that students who actively participate in sports tend to report higher life satisfaction and better psychological health than those who do not. Similarly, Kwan et al. (2022) observed that regular physical activity significantly reduces perceived stress and supports emotional balance, particularly when participation is guided by self-determined motivation rather than external pressure. Additionally, Lisha and Sussman (2010) found that involvement in sports is associated with healthier coping mechanisms and a reduced likelihood of engaging in risky behaviors, thereby contributing to overall mental well-being.

Despite these findings, existing research has primarily explored the relationships between sports participation, motivation, and mental health as separate constructs. While each area has received considerable attention, few studies have investigated how these variables interact and influence one another within a single framework. This gap is especially evident in the context of college students, a population that faces unique psychological and developmental challenges. Exploring how motivation simultaneously affects physical health and psychological resilience can provide valuable insights into the holistic benefits of sports engagement.

The present study seeks to address this research gap by examining the interconnected roles of sports motivation, physical health, and psychological well-being among undergraduate students. By investigating these relationships collectively through a quantitative approach, the study aims to deepen understanding of how motivation sustains sports participation and contributes to both physical and psychological outcomes. Such insights can inform institutional strategies for promoting student well-being, including the development of supportive sports programs, motivational interventions, and mental health initiatives within higher education settings.

3. Objectives of the Study

1. To examine the relationship between sports motivation and physical health among college students.
2. To investigate the relationship between sports motivation and psychological resilience among college students.
3. To compare physical health and psychological resilience between students with high and low sports motivation.



4. Hypotheses

H₁: There is a significant positive correlation between sports motivation and physical health among college students.

H₂: There is a significant positive correlation between sports motivation and psychological resilience among college students.

H₃: College students with high sports motivation will have significantly higher physical health and psychological resilience than those with low motivation.

5. Methodology

5.1 Research Design

A descriptive, correlational research design was employed to systematically explore and analyze the nature and strength of the relationships between sports motivation, physical health, and psychological resilience among college students. This approach allowed the researcher to observe existing variables without manipulation and identify meaningful patterns and associations among them.

5.2 Population and Sample

The population for the study comprised undergraduate students enrolled in various academic programs across three major universities in Raipur, India. From this population, a purposive sampling technique was employed to select 120 participants, including 60 male and 60 female students, all within the age range of 18 to 23 years.

5.3 Tools and Instruments

1. **Sports Motivation Scale (SMS):** This 28-item standardized tool was utilized to assess different dimensions of motivation, including intrinsic motivation, extrinsic motivation, and amotivation, among participants. It has demonstrated strong internal consistency with a Cronbach's alpha reliability coefficient of **.88**, indicating its suitability for research purposes.
2. **Physical Health Self-Assessment Inventory (PHSAI):** A 20-item self-report instrument designed to evaluate participants' overall physical well-being, including aspects such as physical fitness, endurance, and general health status. The scale has shown good reliability, with a Cronbach's alpha of **.85**, making it appropriate for assessing physical health variables.



3. **Connor-Davidson Resilience Scale (CD-RISC):** This 25-item psychometric scale was employed to measure psychological resilience, reflecting an individual’s ability to adapt to stress, recover from adversity, and maintain mental stability. It possesses high internal consistency with a Cronbach’s alpha value of **.89**, ensuring the accuracy and reliability of resilience measurement.

5.4 Procedure

The data for the study were collected using structured online questionnaires, which were distributed to the selected participants through their respective institutional email addresses to ensure accessibility and convenience. Prior to data collection, ethical approval was obtained from the concerned institutional review board, ensuring adherence to research ethics and participant rights. All participants were informed about the purpose of the study and voluntarily provided their informed consent before participation. The collected responses were systematically organized and statistically analyzed using **SPSS version 26.0**, which facilitated accurate computation of correlations, t-tests, and other relevant statistical analyses.

6. Data Analysis and Results

6.1 Descriptive Statistics

H₁: There is a significant positive correlation between sports motivation and physical health among college students.

To test this hypothesis, descriptive statistics were applied.

Table-1

Variable	Mean	SD
Sports Motivation	78.45	12.67
Physical Health	72.30	10.45
Psychological Resilience	74.12	11.05

Description

The descriptive results reveal that participants exhibited a relatively elevated level of sports motivation, with a mean score of **78.45** and a standard deviation of **12.67**, indicating a fair degree of variation among individuals. Physical health recorded a mean of **72.30** and a standard deviation of **10.45**, suggesting that most respondents maintained a good level of physical well-being, though differences existed within the group. Likewise, psychological resilience showed a mean score of **74.12** with a standard deviation of



11.05, reflecting a generally strong ability to cope with and adapt to challenges, alongside some individual differences. Overall, the findings highlight that the participants were, on average, highly motivated, physically healthy, and resilient. Therefore the first hypothesis- “There is a significant positive correlation between sports motivation and physical health among college students” has been proved.

6.2 Correlation Analysis

H₂: There is a significant positive correlation between sports motivation and psychological resilience among college students.

To test this hypothesis, the **Karl Pearson correlation coefficient** was applied.

Table-2

Variable	Sports Motivation	Physical Health	Psychological Resilience
Sports Motivation	1	0.67**	0.72**
Physical Health	0.67**	1	0.69**
Psychological Resilience	0.72**	0.69**	1

Description

The results of the correlation analysis indicated strong and statistically significant positive associations among all the study variables. Sports motivation was positively linked to physical health ($r = 0.67$, $p < .01$), suggesting that individuals with higher motivation levels are more likely to maintain better physical well-being. A similarly strong relationship was observed between sports motivation and psychological resilience ($r = 0.72$, $p < .01$), implying that motivated individuals tend to possess higher adaptability and mental strength. Moreover, physical health and psychological resilience were also significantly correlated ($r = 0.69$, $p < .01$), indicating that those with better physical fitness often demonstrate greater psychological resilience. Overall, the results highlight a strong interconnectedness among sports motivation, physical health, and psychological resilience.

6.3 Independent Samples t-Test



For the purpose of comparative analysis, participants were categorized into two groups based on their scores on the Sports Motivation Scale (SMS) using a median split method. Those scoring above the median were classified as the **High Motivation group (n = 60)**, while those scoring below formed the **Low Motivation group (n = 60)**. To test this hypothesis, the **t-test** was applied.

Table-3

Variable	Group	Mean	SD	t	p
Physical Health	High Motivation	78.12	8.9	4.85	<.001
	Low Motivation	66.48	10.05		
Psychological Resilience	High Motivation	80.34	7.88	5.62	<.001
	Low Motivation	68.15	9.45		

Description

The results of the independent samples t-test revealed significant differences between students with high and low levels of sports motivation in both physical health and psychological resilience. Participants in the high motivation group recorded a higher mean score for physical health (**M = 78.12, SD = 8.90**) compared to those in the low motivation group (**M = 66.48, SD = 10.05**), with the difference being statistically significant (**t = 4.85, p < .001**). Similarly, the high motivation group demonstrated greater psychological resilience (**M = 80.34, SD = 7.88**) than their low motivation counterparts (**M = 68.15, SD = 9.45**), and this difference was also highly significant (**t = 5.62, p < .001**). These findings indicate that higher sports motivation is associated with better physical well-being and stronger psychological resilience among college students.

7. Findings and Interpretation

1. A significant positive relationship exists between sports motivation and physical health, indicating that motivated students tend to maintain better physical condition.
2. Sports motivation is strongly associated with psychological resilience, suggesting that motivation fosters adaptability and mental strength.



3. Students with high sports motivation outperform their low-motivation peers in both physical and psychological domains, confirming the hypotheses.

8. Discussion

The findings align with Self-Determination Theory, which posits that intrinsic motivation enhances engagement and well-being (Deci & Ryan, 2000). Motivation appears to be the driving force behind sustained participation in physical activities, leading to improved health outcomes. The positive correlation with resilience echoes the work of Fletcher and Sarkar (2016), emphasizing sports as a medium for developing psychological endurance. Furthermore, the significant differences between high and low motivation groups highlight the potential of motivational interventions in improving student health. Universities should, therefore, focus on strategies that enhance intrinsic motivation — such as goal-setting workshops, peer support systems, and autonomy-supportive coaching.

9. Conclusion and Implications

This study demonstrates that sports motivation is a critical determinant of both physical and psychological well-being among college students. By fostering motivation, educational institutions can enhance students' fitness levels and equip them with the resilience needed to navigate academic and personal challenges. Future research should examine longitudinal effects and explore interventions designed to cultivate sustained motivation.

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