

Effectiveness of Sports Activities on Physical and Mental Wellbeing: A Systematic Review

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DOI: <https://doi.org/10.36348/sjnhc.2025.v08i07.003>

| Received: 02.06.2025 | Accepted: 10.07.2025 | Published: 16.07.2025

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Abstract

Background: Sports activities have a profound influence on both physical and mental health. Beyond physical exertion, they contribute to psychosocial development and emotional resilience. This systematic review aims to evaluate the impact of evening sports activities on the physical and mental wellbeing of hostel students. **Methods:** A comprehensive search of databases including PubMed, Medline, and Google Scholar, along with offline journals, was conducted. Studies assessing the impact of sports activities on physical and mental health, particularly among hostel or residential students, were included. **Results:** The selected studies consistently demonstrated positive associations between sports activity and enhanced wellbeing. Participation in sports was associated with reduced stress, improved cardiovascular function, increased emotional resilience, and better social functioning. **Conclusion:** This review underscores the importance of integrating structured sports activities into student wellness strategies. Interventions tailored to address both physical and psychosocial needs can significantly enhance the overall wellbeing of hostel students.

Keywords: Sports Activities, Physical Wellbeing, Mental Wellbeing, Hostel Students, Physical Activity, Emotional Resilience, Student Health, Systematic Review, Psychological Wellbeing, Team Sports.

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INTRODUCTION

Sports participation plays a multifaceted role in health promotion, offering both physiological and psychological benefits. While physical activity remains the core component, sports also contribute to emotional wellbeing, personal growth, and social development. Evidence suggests sports participation helps reduce substance abuse, promotes lifelong physical activity, and enhances awareness of healthy lifestyles.

Physical activity, defined as "any bodily movement produced by skeletal muscles that requires energy expenditure," improves not only physical health but also mental wellbeing. The World Health Organization (WHO) emphasizes that "there is no health without mental health," highlighting the interconnectedness of physical and mental domains.

This review examines the role of sports in improving holistic health, with a focus on hostel students who often face academic pressure, limited space, and restricted access to physical activity.

Objectives of the Review

1. To examine literature on the effect of sports on physical health.
2. To examine literature on the effect of sports on mental health.
3. To analyze the relationship between physical activity and wellbeing.
4. To assess the role of sports in promoting a healthy student lifestyle.
5. To identify gaps in current research and suggest future directions.

MATERIAL AND METHODS

A systematic literature review was conducted using databases such as PubMed, Medline, and Google Scholar. Keywords included: *sports activity, physical wellbeing, mental wellbeing, and hostel students.*

Inclusion Criteria:

- Peer-reviewed quantitative or qualitative studies.
- Studies focusing on adolescents, college students, or hostel residents.

- Research evaluating the impact of sports or physical activity on wellbeing.

Exclusion Criteria:

- Studies lacking methodological clarity.
- Non-peer-reviewed articles or opinion pieces.

Summary of Related Work**Table 1: Summary of Studies on the Impact of Sports Activities**

Sl. No	Article title, author	Methodology	Sample	Analysis/ Tool	Findings
1	Interrelation of sport participation, physical activity, social capital and mental health in disadvantaged communities Marlier, 2015 [5]	Quantitative cross sectional	414 age range 18 to 56 years	Thematic analysis (interview)	No direct associations were found between sport participation and community social capital (or individual social capital Individual social capital (but not community social capital) had a direct association with mental health. A significant indirect association of community social capital with mental health was discovered through individual social capital (i.e., individual social capital partially mediates the relation between community social capital and mental health)
2	Relationships between youth sports participation and mental health in young adulthood among Finnish males Appelqvist-Schmidlechner, 2018 [6]	Quantitative-cross sectional (retroactive)	680 male 26 years	Mental well-being Warwick-Edinburgh Mental Well-Being Scale (short version) Mental distress The Short Form Health Survey (SF-36) scale ('5 items')	Sports participation (SP) at 12 years is associated with better mental health in young adulthood-mental wellbeing and mental distress. This was also the case when controlling the impact of age, education, and present leisure-time physical activity. Higher level of intensity of SP and the level of competitive sport in childhood were associated with lower level of mental distress in adulthood
3	Rates and Correlates of Mental Health Symptoms in Currently Competing Elite Athletes from the Australian National High-Performance Sports System Purcell, 2020 [7]	Quantitative cross sectional	749 344 males mean age = 24.6 (sd = 6.9)	One-way analysis of variance	There was no relationship between social dysfunction and sport participation
4	Sport participation in high school and anxiety symptoms in young adulthood. Ashdown-Franks, 2017 [8]	Quantitative—longitudinal	781 2. 44.8% male	Canadian Community Health Survey	The number of years of sport participation in high school was protective of symptoms of panic and agoraphobia in young adulthood, but not protective of symptoms of social phobia or GAD. Participation in either type of

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					sport (individual or team) was protective of panic disorder symptoms, while only team sport was protective of agoraphobia symptoms, and only individual sport was protective of social phobia symptoms
5	The impact of badminton on health markers in untrained females Patterson, 2017 [9]	Quantitative-RCT	33 female, Mean age = 34.3 years	Physical self-esteem Physical self-perception profile (PSPP)	Group by time analyses show a significant improvement in the badminton and running groups' perception of their physical condition. There were no significant group by time interaction effects for sport competence, body attractiveness, strength competence and physical self-worth
6	Analysis and Research on the Rehabilitation Effect of Physical Exercise on College Students' Mental Depression Based on Multidimensional Data Mining [10]	Quantitative	23,146 undergraduate students	One-way analysis of variance	Throughout the control phase of the intervention, maintaining ongoing connections with peers may motivate university students to actively utilize their internal resources when facing challenges and setbacks. Acting as a protective factor, psychological resilience can effectively diminish the link between life's risk factors and anxiety, providing relief from anxious feelings. Physical exercise may delay or prevent mental disorders and can treat mental illness.
7	COVID-19 in Turkey: Leisure Boredom, Psychological Resilience, Physical Activity and Emotional State [11]	Quantitative	2,214 voluntary participants	T-test Correlation Regression	Individuals experienced negative emotional states during this period. A correlation emerged between PA and psychological resilience. As individuals increased their participation in PA, their levels of psychological resilience also increased, and they reported a reduced perception of boredom during leisure time.
8	Mediating Role of Resilience in the Relationships of Physical Activity and Mindful Self-awareness with Peace of Mind (PoM) among	Quantitative	436 students	Path analysis Mediation	Resilience was identified as a significant factor in predicting PoM, suggesting that individuals with greater resilience levels are more prone to experience a greater sense of peace of mind. The results indicated that

Sl. No	Article title, author	Methodology	Sample	Analysis/ Tool	Findings
	College Students [12]				both mindful self-awareness and PA predict an individual's level of resilience. This finding emphasized the importance of resilience in cultivating one's mental well-being, particularly in terms of PoM.
9	Moderating Effect of Physical Exercise between the Relation of Psychological Resilience and Negative Emotions of University Students in Iraq[13]	Quantitative	University students	Path analysis Moderation	Physical health indeed played a significant moderating role in the relationship between psychological resilience as well as negative emotions among university students in Iraq.
10	Physical Activity and Resilience among College Students: The Mediating Effects of Basic Psychological Needs [14]	Quantitative	2,375 college students	Correlation Regression Mediation	Findings indicated a positive correlation between PA and resilience, with the three fundamental needs acting as significant mediators in the relationship between PA and resilience. The impact of the need for competence was notably more pronounced compared to the needs for autonomy and relatedness, with the indirect effect being particularly significant.

DISCUSSION

This review supports the growing body of evidence linking sports participation with enhanced physical and psychological wellbeing. Particularly for hostel students, sports activities offer a means of stress relief, community building, and emotional regulation. While many benefits are well documented, future studies must explore the underlying mechanisms and long-term effects of sports on mental health.

Research Gaps Identified

1. Lack of strategic interventions to reduce sedentary behavior in students.
2. Limited data on physical activity prevalence and intensity in college youth.
3. Few studies examining the effect of screen time and technology use on sports participation.
4. Insufficient comparative research on rural vs. urban youth activity levels.
5. Need for evaluation of individual vs. team sports on different dimensions of wellbeing.

CONCLUSION

Regular participation in sports positively influences both physical and mental wellbeing. Team sports, in particular, offer social interaction and

cooperative learning, contributing to better emotional health. Educational institutions should prioritize structured physical activities within hostel environments to support students' holistic development and mental resilience.

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