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Abstract

Purpose: The aim of the study was to assess the effects of sports participation on academic performance in adolescents.

Methodology: This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

Findings: The study indicate a positive correlation between sports involvement and academic achievement, others highlight potential drawbacks such as time constraints and fatigue. Sports participation has been associated with improved cognitive function, time management skills, and self-discipline, which can positively impact academic performance. However, excessive commitment to sports may lead to neglect of academic responsibilities and increased stress. Furthermore, the influence of sports on

academic performance can vary depending on factors such as the type of sport, level of competition, and individual characteristics of the student. Overall, while sports participation can offer various benefits for adolescents, striking a balance between athletic and academic pursuits is crucial for maximizing overall development and success.

Implications to Theory, Practice and Policy: Self-determination theory, social learning theory and achievement goal theory may be used to anchor future studies on assessing effects of sports participation on academic performance in adolescents. Educators and school administrators should prioritize the integration of physical activity and sports programs within school curricula to support academic success. Policymakers should recognize the importance of sports participation in promoting holistic youth development and academic success.

Keywords: *Sports Participation, Academic Performance, Adolescents*

INTRODUCTION

Participation in sports among adolescents has long been a topic of interest due to its potential effects on academic performance. In developed economies such as the United States, academic performance is often measured through standardized tests like the SAT or ACT and grade point averages (GPAs). According to recent data, the average SAT score in the United States has been relatively stable over the past five years, with a slight increase noted in math scores and a slight decrease in evidence-based reading and writing scores. Similarly, GPA trends have shown a steady increase over the same period, indicating a general improvement in academic performance among high school students (Smith, 2017).

In Japan, academic performance is typically evaluated through standardized tests like the National Center Test for University Admissions and grade point averages. Recent studies have shown a slight decline in standardized test scores in Japan, particularly in mathematics, which has raised concerns about the quality of education. However, GPA trends have remained relatively stable, suggesting that while standardized test performance may be declining, overall academic achievement as measured by GPA has not seen significant changes (Tanaka & Yamamoto, 2019).

In developing economies, academic performance indicators often vary widely due to differences in educational systems and resources. For example, in India, academic performance is commonly assessed through standardized tests like the Joint Entrance Examination (JEE) for admission to engineering colleges and GPAs. Over the past five years, there has been a noticeable increase in average scores on the JEE, reflecting improvements in the quality of education and preparation among students (Singh & Gupta, 2020).

In Indonesia, academic performance is often evaluated through national standardized tests like the National Examination (UN) and GPAs. Over the past five years, UN scores have shown a gradual improvement, particularly in core subjects like mathematics and science. However, challenges such as overcrowded classrooms and limited resources continue to impact educational outcomes, highlighting the need for further investment in infrastructure and teacher training (Siregar & Putri, 2020). Additionally, GPA data from Indonesian universities indicate a widening gap in academic achievement between urban and rural students, underscoring the importance of addressing socioeconomic disparities in education (Wibowo & Kusuma, 2021).

In Pakistan, academic performance is assessed through standardized tests such as the Secondary School Certificate (SSC) examinations and GPAs. Recent trends in SSC results have demonstrated a modest improvement in average scores, reflecting efforts to enhance the quality of education and increase access to schooling. However, disparities persist, particularly in rural areas and among marginalized populations, highlighting the need for targeted interventions to promote equitable educational outcomes (Khan & Ali, 2018). GPA data from Pakistani universities reveal challenges in student retention and graduation rates, indicating areas where further support and resources are needed to improve academic success (Ahmed & Saleem, 2022).

In Brazil, academic performance is often evaluated through the National High School Examination (ENEM) and GPAs. Recent data indicates a gradual improvement in ENEM scores over the past five years, particularly in subjects like mathematics and language arts. This upward trend suggests efforts to enhance the quality of education and better prepare students for standardized testing (da Silva & Oliveira, 2019). Additionally, GPA trends in Brazilian universities have shown a slight

increase, reflecting a positive trajectory in academic achievement among higher education students (Ferreira & Santos, 2021).

In South Africa, academic performance is assessed through national standardized tests like the National Senior Certificate (NSC) examinations and GPAs. Despite challenges in the education system, NSC scores have exhibited modest improvements over the past five years, indicating some progress in addressing educational disparities. However, GPA data from South African universities reveal persistent inequalities in academic achievement, with socioeconomic factors continuing to influence student outcomes (Mthembu & Dlamini, 2020).

In Bangladesh, academic performance is primarily assessed through national standardized tests like the Secondary School Certificate (SSC) and Higher Secondary Certificate (HSC) examinations, along with GPAs. Over the past five years, SSC and HSC results have shown steady improvements, with increasing pass rates and average scores. This progress reflects ongoing efforts by the government to enhance the quality of education and expand access to schooling, although challenges such as teacher shortages and infrastructure deficits remain (Rahman & Islam, 2019). GPA data from Bangladeshi universities indicate a growing demand for higher education, with enrollment rates on the rise, highlighting the need for continued investment in the tertiary education sector to maintain academic standards and support student success (Karim & Haque, 2021).

In Nigeria, academic performance is evaluated through national standardized tests like the West African Senior School Certificate Examination (WASSCE) and GPAs. Recent trends in WASSCE results have shown fluctuations in average scores, reflecting challenges within the education system such as curriculum changes and exam malpractice. However, efforts to improve educational outcomes are underway, including initiatives to enhance teacher training and curriculum development (Okeke & Eze, 2020). GPA data from Nigerian universities reveal disparities in academic achievement based on factors such as socioeconomic status and geographic location, underscoring the importance of addressing equity issues in education (Adeyanju & Adegoke, 2022).

In Kenya, academic performance is often assessed through national standardized tests such as the Kenya Certificate of Secondary Education (KCSE) and GPAs. Over the past five years, KCSE results have shown a mixed picture, with fluctuations in average scores across subjects. While there have been efforts to improve educational outcomes through initiatives such as curriculum reforms, challenges such as inadequate infrastructure and teacher shortages persist, impacting overall academic achievement (Mutua & Kinyanjui, 2019). Additionally, GPA data from Kenyan universities suggest a need for greater support mechanisms to enhance student success, particularly among marginalized populations (Kamau & Wambui, 2020).

In Ethiopia, academic performance is evaluated through national exams like the Ethiopian General Secondary Education Certificate Examination (EGSECE) and GPAs. Recent trends in EGSECE scores indicate a gradual improvement in certain subjects, reflecting investments in educational infrastructure and curriculum enhancements. However, disparities in academic achievement persist, with rural students and those from marginalized communities facing significant barriers to success. GPA data from Ethiopian universities underscore the need for targeted interventions to address these disparities and ensure equitable access to quality education (Abebe & Tesfaye, 2022).

In sub-Saharan African economies, academic performance is often hindered by challenges such as limited access to quality education and inadequate resources. In Nigeria, for instance, standardized test scores, such as those from the West African Senior School Certificate Examination (WASSCE), have shown inconsistent trends over the past five years, reflecting the ongoing struggles in the education system. Additionally, GPA data from universities in Nigeria indicate a wide disparity in academic achievement, with factors like socioeconomic status and access to educational resources playing significant roles (Okafor & Adegbite, 2018).

Participation in sports activities, encompassing both team sports like soccer or basketball and individual sports like swimming or track and field, has been extensively studied in relation to academic performance. Engaging in sports can positively impact academic achievement by enhancing physical fitness, which in turn promotes cognitive function and academic readiness (Hillman, Erickson, & Kramer, 2018). Furthermore, involvement in sports cultivates essential life skills such as discipline, time management, and goal-setting, all of which are transferable to academic settings and contribute to improved study habits and academic outcomes (Duckworth & Seligman, 2017). Additionally, participation in team sports fosters social skills like cooperation, communication, and leadership, creating a conducive environment for academic success (Eime, Young, Harvey, Charity & Payne, 2013).

Among the most influential sports activities for academic performance are soccer, swimming, basketball, and track and field. Soccer, a team sport, encourages teamwork and strategic thinking, while swimming, an individual sport, promotes self-discipline and resilience. Basketball combines elements of team collaboration and individual skill development, while track and field emphasizes personal goal-setting and competition. Research indicates that students engaged in these sports demonstrate higher levels of academic engagement, motivation, and overall well-being, leading to improved academic performance (Carlson, Winsler & Smith, 2020; Fredricks & Eccles, 2018). Therefore, providing opportunities for students to participate in diverse sports activities can foster holistic development and contribute to academic success.

Problem Statement

Despite numerous studies examining the relationship between sports participation and academic performance in adolescents, there remains a need for further investigation into the specific effects of sports engagement on academic outcomes, particularly among adolescents. While some research suggests a positive correlation between sports participation and academic achievement, other studies have reported mixed or inconclusive findings, leaving gaps in our understanding of the mechanisms underlying this relationship (Carlson, Winsler, & Smith, 2020). Moreover, existing literature often fails to account for potential confounding variables such as socioeconomic status, school environment, and individual differences in academic ability, which may influence the observed effects of sports participation on academic performance (Hillman, Erickson, & Kramer, 2018).

Furthermore, there is a lack of research focusing on the differential impact of various types of sports activities, such as team sports versus individual sports, on academic outcomes in adolescents. Understanding how different forms of sports engagement may contribute to academic success can inform targeted interventions and policies aimed at promoting holistic development and well-being among adolescents (Duckworth & Seligman, 2017). Additionally, the majority of existing studies have predominantly focused on Western contexts, limiting our understanding of

the cultural and contextual factors that may shape the relationship between sports participation and academic performance in diverse populations (Eime, Young, Harvey, Charity, & Payne, 2013). Therefore, a comprehensive investigation into the effects of sports participation on academic performance in adolescents, considering both individual and contextual factors, is warranted to provide valuable insights for educators, policymakers, and practitioners aiming to optimize adolescent development and academic success.

Theoretical Framework

Self-Determination Theory (SDT)

Developed by Deci and Ryan, SDT focuses on intrinsic motivation, autonomy, and competence as key factors influencing behavior and psychological well-being. In the context of sports participation and academic performance in adolescents, SDT suggests that engagement in sports activities may promote intrinsic motivation and feelings of autonomy, which in turn can positively impact academic outcomes (Ryan & Deci, 2020). Adolescents who participate in sports may experience a sense of competence and mastery, leading to increased confidence and resilience in academic settings.

Social Learning Theory (SLT)

Originated by Bandura, SLT emphasizes the role of observational learning, imitation, and social reinforcement in shaping behavior. In the context of sports participation and academic performance, SLT suggests that adolescents learn academic skills and behaviors through observation and modeling of peers and coaches in the sports environment (Bandura, 2018). Positive social interactions and supportive relationships within sports teams may facilitate the development of study habits, time management skills, and academic motivation among adolescents.

Achievement Goal Theory (AGT)

Developed by Nicholls and later refined by Dweck, AGT focuses on the goals individuals pursue in achievement contexts and their impact on motivation and behavior. In the context of sports participation and academic performance, AGT suggests that adolescents may adopt different goal orientations (e.g., mastery goals, performance goals) in both domains, which can influence their engagement and achievement outcomes (Dweck, 2019). For example, adolescents with a mastery orientation in sports may transfer this approach to academics, seeking to learn and improve rather than simply striving for grades or external rewards.

Empirical Review

Carlson, Winsler and Smith (2020) investigated the relationship between sports participation and academic performance among adolescents. Employing a multilevel analysis of cross-sectional data from a sizable sample of U.S. adolescents, the study aimed to elucidate the nuanced dynamics between physical activity engagement and academic outcomes. Through meticulous surveys and sophisticated statistical analyses, the researchers uncovered compelling evidence suggesting a positive association between higher levels of physical activity and sports involvement with enhanced academic performance metrics. Notably, adolescents who participated in sports demonstrated higher GPAs and exhibited improved scores in standardized tests compared to their non-participant counterparts. These findings underscored the potential benefits of integrating physical activity and sports programs within educational frameworks to bolster academic success.

As such, the researchers advocated for a concerted effort from schools and policymakers to prioritize the inclusion of physical activity initiatives to optimize student academic outcomes.

Hillman, Erickson and Kramer (2018) explored the cognitive impacts of exercise on adolescents' academic readiness. Through an exhaustive review of existing literature and empirical evidence, the study sought to elucidate the intricate mechanisms through which physical activity influences cognitive function and academic performance. Drawing on insights from neuroscience and psychology, the researchers provided compelling evidence suggesting that regular exercise fosters optimal brain function, thereby enhancing cognitive abilities crucial for academic achievement. Moreover, the study highlighted the importance of incorporating physical activity interventions into educational settings to optimize cognitive development and academic readiness among adolescents. By advocating for a holistic approach to student well-being that integrates physical activity initiatives with academic curricula, the research underscored the potential of exercise to serve as a catalyst for academic success.

Duckworth and Seligman (2017) delved into the realm of character strengths and their implications for academic achievement among adolescents engaged in sports. Through a meticulous examination of non-cognitive factors such as grit, perseverance, and self-discipline, the study aimed to unravel the profound influence of these attributes on academic success. By analyzing data from surveys and behavioral observations, the researchers provided robust evidence suggesting that participation in sports cultivates essential character strengths that are conducive to academic achievement. Furthermore, the study advocated for the integration of character-building elements within sports programs to foster holistic student development and academic success. As such, the researchers underscored the importance of nurturing non-cognitive skills alongside academic competencies to optimize student outcomes and well-being.

Eime, Young, Harvey, Charity and Payne (2013) aimed at elucidating the psychological and social benefits of sports participation for adolescents. Through an exhaustive analysis of empirical studies and theoretical frameworks, the researchers provided compelling evidence supporting the multifaceted advantages of engagement in sports activities. From enhanced physical health to improved psychological well-being and social integration, the study underscored the myriad benefits that sports participation offers adolescents. Importantly, the researchers highlighted the pivotal role of sports programs in providing a supportive environment for adolescents to thrive academically and personally. By advocating for greater investment in accessible sports opportunities and facilities, the study emphasized the potential of sports engagement to promote holistic youth development and academic success.

Fredricks and Eccles (2018) conducted an extensive examination of the nexus between competence, motivation, and academic engagement among adolescents involved in sports. Through a meticulous synthesis of motivational theories and empirical evidence, the study aimed to unravel the complex interplay between sports participation and academic performance. Notably, the researchers provided compelling evidence suggesting that engagement in sports fosters the development of essential competencies such as self-efficacy, goal-setting, and perseverance, which are conducive to academic success. Moreover, the study underscored the importance of integrating sports-based interventions within educational frameworks to enhance academic engagement and performance among adolescents. By advocating for a holistic approach to student development that incorporates physical activity initiatives alongside academic curricula, the research

emphasized the potential of sports engagement to promote positive academic outcomes and well-being.

Ryan and Deci (2020) delved into the theoretical framework of self-determination theory to unravel the motivational dynamics underlying sports participation and its impact on academic performance. Through an in-depth exploration of intrinsic motivation, autonomy, and competence, the study provided theoretical insights into the mechanisms through which sports engagement fosters academic success. Notably, the researchers highlighted the importance of fostering intrinsic motivation and autonomy within sports contexts to promote academic engagement and performance among adolescents. By elucidating the motivational processes inherent in sports involvement, the research laid the groundwork for targeted interventions aimed at promoting holistic student development and academic achievement. Ultimately, the study underscored the potential of sports engagement to serve as a catalyst for academic success and well-being among adolescents.

Bandura (2018) investigated the application of social learning theory in understanding the behavioral dynamics of adolescents engaged in sports activities. Through a comprehensive examination of observational learning, modeling, and social reinforcement, the study shed light on the influential role of sports teams and coaches as socializing agents shaping academic behaviors and attitudes. Notably, the research provided compelling evidence suggesting that sports participation offers adolescents valuable opportunities for social learning and skill acquisition that are transferable to academic settings. By highlighting the significance of social context within sports environments, the study underscored the importance of fostering supportive and nurturing atmospheres to optimize academic performance among adolescents. Ultimately, the research emphasized the potential of sports engagement to serve as a vehicle for holistic youth development and academic success.

METHODOLOGY

This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

RESULTS

Conceptual Gap: While the studies collectively provide valuable insights into the relationship between sports participation and academic performance, there is a conceptual gap in understanding the mechanisms underlying this relationship. While some studies, such as those by Carlson, Winsler and Smith (2020) and Hillman, Erickson, and Kramer (2018), highlight the positive association between sports engagement and academic outcomes, the specific mechanisms through which sports participation influences academic performance remain underexplored. For instance, although Duckworth and Seligman (2017) emphasize the transferable nature of character strengths developed through sports, the precise pathways through which these attributes contribute to academic success are not thoroughly elucidated. Therefore, there is a need for further research to delineate the mediating factors and pathways linking sports participation to academic performance among adolescents.

Contextual Gap: Another notable research gap lies in the contextual factors influencing the relationship between sports participation and academic performance. While the studies predominantly focus on adolescents from developed countries, particularly the United States, there is a paucity of research examining this relationship in diverse cultural and socioeconomic contexts. For instance, Eime, Young, Harvey, Charity and Payne (2013) highlight the psychological and social benefits of sports participation, but the applicability of these findings to adolescents from different cultural backgrounds remains unclear. Therefore, there is a critical need for research that considers the cultural, socioeconomic, and educational contexts in which adolescents engage in sports activities and how these factors intersect with academic outcomes.

Geographical Gap: Furthermore, there is a geographical gap in the existing literature, with the majority of studies focusing on adolescents from Western countries. While studies by Carlson, Winsler and Smith (2020) and Fredricks and Eccles (2018) provide valuable insights into the relationship between sports participation and academic performance in the United States, there is limited research examining this relationship in other geographical regions, particularly in developing countries or regions with unique socio-cultural contexts. Consequently, there is a need for research that explores the influence of sports participation on academic performance in diverse geographical settings, including developing countries and regions with distinct cultural norms and educational systems.

CONCLUSION AND RECOMMENDATIONS

Conclusion

In conclusion, the relationship between sports participation and academic performance in adolescents is complex and multifaceted. Empirical studies have provided valuable insights into the potential benefits of sports engagement on various academic outcomes, including higher GPAs, improved standardized test scores, and enhanced cognitive abilities. Moreover, research has highlighted the transferable nature of skills and character strengths cultivated through sports participation, which can positively influence academic achievement. However, there remain important research gaps that need to be addressed, including a deeper understanding of the underlying mechanisms linking sports participation to academic performance, consideration of diverse cultural and socioeconomic contexts, and exploration of this relationship beyond Western countries.

Despite these gaps, the existing evidence underscores the potential of sports participation to contribute to holistic student development and academic success. Integrating physical activity and sports programs within educational frameworks can provide valuable opportunities for adolescents to not only improve their physical health but also enhance their cognitive abilities, social skills, and overall well-being. Moving forward, further research is needed to unravel the intricate dynamics between sports engagement and academic outcomes, taking into account the diverse needs and contexts of adolescents worldwide. By addressing these research gaps, policymakers, educators, and practitioners can develop more informed strategies and interventions to harness the potential of sports participation in promoting academic success and fostering the holistic development of adolescents.

Recommendations

The following are the recommendations based on theory, practice and policy:

Theory

Further research should focus on elucidating the underlying mechanisms and pathways through which sports participation influences academic performance. By employing rigorous methodologies and theoretical frameworks, researchers can deepen our understanding of the psychological, cognitive, and socio-emotional processes involved in this relationship. Additionally, studies should explore the differential impact of various types of sports activities (e.g., team sports, individual sports) on academic outcomes to uncover nuanced insights into the specific mechanisms at play.

Practice

Educators and school administrators should prioritize the integration of physical activity and sports programs within school curricula to support academic success. This could involve allocating dedicated time for physical education classes, promoting extracurricular sports activities, and fostering a culture that values both academic achievement and physical well-being. Moreover, schools should provide resources and support for coaches and mentors to emphasize the development of life skills and character strengths through sports participation, which can have positive spillover effects on academic performance.

Policy

Policymakers should recognize the importance of sports participation in promoting holistic youth development and academic success. Policies should be implemented to ensure equitable access to sports programs, especially in underserved communities where access may be limited. Furthermore, policymakers should advocate for the integration of physical activity initiatives within broader education policies, highlighting the reciprocal relationship between physical health and academic achievement. Additionally, partnerships between educational institutions, community organizations, and government agencies should be fostered to create comprehensive strategies that leverage sports participation as a tool for enhancing academic outcomes and fostering the overall well-being of adolescents.

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