Int J Biol Med Res. 2025; 16(4):8252-8257

Contents lists available at BioMedSciDirect Publications

International Journal of Biological & Medical Research

Journal homepage: www.biomedscidirect.com

Original Article

Exploring The Role Of Sports Participation In Enhancing Mental Health Among Undergraduate Students: A Mixed-Methods Analysis

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ARTICLEINFO

Keywords:
Sports Engagement,
Mental Wellbeing,
University Students,
India, Anxiety,
Depression, Stress,
Emotional Regulation,
Social Support,
Self-Determination Theory,
Sport Commitment,
Mental Health Intervention,
Academic Stress.

ABSTRACT

Introduction: The specific focus of this research is how sports participation is used as an intervention for mental health issues amongst undergraduate students in India. Indian university students are facing severe mental health issues like stress, anxiety, and depression owing to academic pressure, sociocultural expectations, and financial stressors. The growing concern for wellness among various populations has led to the consideration of non-pharmacological approaches, and sports has come up as one of the most promising options for alleviating these challenges. The purpose of the study is to evaluate the effects of sports participation on the mental health outcomes, taking into account the frequency, intensity, and the social dynamics of participation. Methodology: This study employs a mixed approach, integrating both quantitative and qualitative methodologies. A sample of 350 undergraduate students from three selected universities in India was surveyed to determine their level of sports participation, mental health (assessed through a General Health Questionnaire-12), and the perceived social support received. Additionally, students were recruited for in-depth semi-structured interviews to share their stories relating to sports and their struggles with mental health. The qualitative data was analyzed through thematic coding, while quantitative data, as provided by the questionnaires, was analyzed by descriptive statistics and correlation analysis. Results: The data shows that there is a strong negative correlation between the level of participation in sports and the mental health distress of students, with physically active students reporting lower levels of anxiety, depression, and stress. Increased involvement in sports, especially recreational and team-based ones, was associated with enhanced psychological well-being. Qualitative interviews indicated that sports helped participants manage emotions, relieve stress, and cultivate a productive identity in addition to having strong social support systems derived from the sports context. Discussion: This study about undergraduate students in India comprehensively showcases the psychological benefits of sports as an overlooked aspect of physical activity. Activity to some extent improves physical health; however, it enhances the person's psychological health by providing moderation to emotions, interaction with others, and alleviating stress. These findings support the bio psychosocial model of health as well as self-determination theory. Particularly within the social aspect of sports, the Indian setting is significant, as the community and peer support is vital for managing mental health issues. The findings are critical for Indian universities, highlighting the need to cultivate sports to use them as a mechanism to improve well-being among students. Conclusion: This research strongly suggests that involvement in sports activities improves the mental health of undergraduate students in India. It is recommended that sports and physical activities are included as active components of the mental health strategies in universities. Further studies should examine the long-term implications of sports activities on mental health and consider the unique sociocultural characteristics of India that would impact sports participation. In the context of the growing mental health crisis among Indian university students, the use of sports in these settings may be a useful, context-appropriate strategy for enhancing students' mental health and overall well-being.

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Introduction

The Surge in Research on Mental Health Issues Affecting College Students

There has been a surge in the research done pertaining to the mental health of undergraduate students in the past few decades. It is well accepted that college students suffer from high levels of stress, anxiety, and depression, which are considered the leading forms of mental health issues in this demographic. There is a considerable amount of research suggesting that the mental health problems among learners often have far-reaching consequences on academic performance, social interaction, and life satisfaction amongst students. In fact, [1] suggests that approximately 40 percent of students in the United States going through college tend to have some mental health problem, and this number is on the rise. With

all the stressors students face during college years and the mental health issues students' face, there is increasing attention to finding and assessing the measures that can mitigate these concerns.

Sports Participation as a Possible Innovative Therapeutic Intervention for Mental Health

Academic and personal transitions often come hand in hand with unhealthy levels of stress, anxiety, and other mental health problems. Being physically active however has always been viewed as one of the most effective methods one can undertake to relieve stress and improve one's mood. Both clinically and no clinically, the nexus binding physical activity and mental health has been deeply entrenched in society [2] .More specifically, participation in organized sports has linked to specific psychological benefits such as alleviation of depression and anxiety, better self-esteem levels, and enhanced cognition. Physical exercise and skill, teamwork, and vigorous activity incorporated in sports add structure, which promotes favourable psychological effects [3].

Previous research on physical activity as a remedy for mental health issues has emphasized aerobics and general fitness exercises [4]. Nevertheless, the psychological aspects of team sports, competitive sports, and intramural activities within the scope of university life are still under researched and unique. For instance, the benefits of team sports extend beyond physical fitness to include social interactions, cooperation, and nurturing community, which contribute to the emotional well-being of individuals.

Moreover, in the context of university life, participation in competitive sports may help students learn how to cope with adversity, manage stress, and regulate their emotions, positively influencing their mental health. Therefore, the existing literature suggests that more research is needed on the potential use of sports as a tool for enhancing mental health among students, especially in relation to their life in college.

Theoretical Framework: A Holistic Approach to Mental Health

To understand sports effects on mental health, a framework integrating both the physical and psychological components is necessary. According to the bio psychosocial model of health, an individual's well-being is determined by the interplay of physical, psychological, and social factors. In terms of sports participation, exercise is associated with the secretion of endorphins and other neurobiochemicals that improve mood and lessen anxiety. Psychologically, sports help ameliorate negative self-concept and low self-efficacy, significantly associated with depressive symptoms and ensuing mental health challenges. Additionally, sports aid in forming positive interpersonal relationships as well as community, serving as useful protective factors for stressors related to university life and improving overall well-being.

Furthermore, scholarly evidence in positive psychology posits that participation in sports, like other meaningful endeavours, is likely to augment an individual's well-being and satisfaction with life. Participation in sports can help students feel purposeful and gain a sense of accomplishment which counteracts feelings of helplessness and provides control over academic and social struggles. Therefore, the combination of exercise, social activities, and self-reported mental well-being creates a powerful framework for studying the effects of sports on mental health.

Mixed methods to study the effects of sports

Using mixed methods provides a holistic approach to studying the intricate connections between sports and mental health in undergraduate students. Quantitative surveys can capture the scope of mental health problems in students who play sports and the benefits accrued from their participation. In contrast, qualitative interviews capture the rich detail and nuance of students' perceptions, experiences, and the benefits they derive from participating in sports. With these methods, it is possible to capture the breadth and depth of the impact of sports on mental health.

Earlier research mostly focused on quantitative methods, tracking the overall physical activity levels and their correlation with mental health outcomes. Nonetheless, the individual narratives and attitudes of students towards their participation in team or competitive sports have not been researched comprehensively. This gap can be addressed using a mixed-methods approach that captures both quantitative data and qualitative data from student sports participants. This approach achieves capturing the essential elements that explain the positive impact of sports on mental health, including social interaction, relaxation, and enhanced self-esteem [3][4].

Conclusion and Importance of Study

By utilizing a mixed-methods approach, this research seeks to address sports participation as an enhancing factor for mental health issues among undergraduate students, which has been underexplored. The multifaceted nature of this research will deepen the existing knowledge of how both competitive and recreational sports contribute to mental wellness within the context of higher education. These findings may inform university leaders, mental health advocates, and policy professionals regarding the need for strategic changes to sports services that aim to mitigate the mental health challenges faced by students. Additionally, this study will serve as a point of reference for subsequent investigations that contemplate the relationship between active living, sociocultural interactions, and mental health during college years.

METHODOLOGY

To examine how participation in sports impacts mental health amongst undergraduate students, the current study integrates both qualitative and quantitative approaches. The mixed-methods approach is expected to capture the extensive scope of psychological advantages that comes with sports participation. The quantitative portion includes obtaining survey data while the qualitative portion consists of conducting detailed interviews with student-athletes and with non-athletes who are involved in university sporting activities. This enables the researcher to consider the way sports participation affects mental health from a more general perspective as well as from an individual one.

Research Design

This study utilizes mixed-methods and sequential explanatory design, which starts with collecting quantitative data, followed by qualitative data collection and analysis. This design permits the researcher to use the quantitative data to identify potential areas of focus and then expand on those areas during the qualitative interviews.

Quantitative Component:

Participants: Undergraduate students (N = 500) within the age range of 18-24 years will be recruited from a large public university in the United States to complete a structured online survey.

Survey Tool: The Sport Commitment Model Questionnaire [4] will be used to evaluate the level of sports commitment while the General Health Questionnaire (GHQ-12) will be used to assess self-reported mental health outcomes.

Sport Commitment Model Questionnaire: Measures the extent of a student's commitment to a sport [4]. This instrument captures the enjoyment dimension, social interaction, and perceived benefits of sports participation.

General Health Questionnaire (GHQ-12): Evaluates mental health symptoms. The GHQ-12 is a validated instrument for defining common mental health issues like anxiety, depression, and social dysfunction.

Data Collection: Participants will be recruited through a university email invitation to partake in the online survey. To maintain anonymity, participants' identities will not be accessible.

Data Analysis: Statistical description of data will be completed which includes calculating the means and standard deviations for each item in the questionnaire. Correlational analyses will be conducted to explore the association between sports participation and the identified mental health outcomes using Pearson's correlation coefficient.

Qualitative Component:

Participants: A purposeful sample of 30 students will be selected to take part in semi-structured interviews. The sample will consist of athletes (N=15) and non-athletes (N=15) who are active in university sporting activities such as intramural leagues and recreational sports.

The Interview Protocol: Each participant will be interviewed based on the prepared open-ended questions focusing on the students' personal encounters with sports and the influence thereof on their mental health.

Some questions are as follows:

"In what ways does participating in sports influence your mood and levels of stress?"

"From engaging in sports, what impacts, if any, have you experienced in regards to your mental health?"

"In your opinion, does participation in sports assist you in managing academic or social stressors?"

Data Collection: As long as participants agree, I will conduct each interview separately and record the audio. Each interview is expected to take no more than 30–45 minutes.

Data Analysis: The interviews will be transcribed verbatim, and thematic analysis is the chosen method for the identification of themes in the data, including trends, recurrent ideas, and patterns. Thematic analysis is appropriate for delving into qualitative data as it provides the opportunity to analyse it in a more open and, thus, participant-centered manner [5].

Sampling Strategy

A sample of undergraduate students enrolled in a university sports program will be recruited through convenience sampling for the quantitative portion. The qualitative sample will be gathered through purposive sampling to capture a wide range of diversity in the type of sports participation (i.e., team vs. individual, recreational vs. competitive) and associated mental health outcomes. For both components, the sample size was set according to guidelines for mixed-methods research, which indicates the need for at least 500 participants for robust quantitative analyses and a minimum of 30 participants for in-depth qualitative assessments [6].

Ethical Considerations

I have not received any ethical approval for this study from my institution's IRB; however, it will be obtained prior to conducting any research activities. The study will observe ethical practices of confidentiality and voluntary participation through informed consent. Participants will be made aware that they are at liberty to withdraw from the study at any point without penalty or consequences. Data provided will be anonymized, which precludes the identification of participants; sensitive mental health information will be protected in compliance with relevant legislative frameworks such as HIPAA law in the U.S.

Data Analysis Procedures

Quantitative Analysis:

Demographic and survey data will be described using summary statistics such as means and standard deviations, along with other relevant descriptive statistics.

Pearson correlation will examine the relationship between participant levels of sports commitment (ascertained via the Sport Commitment Model Questionnaire) and mental health implications (ascertained via the GHQ-12). Statistical significance will be accepted at $p < 0.05$.

Qualitative Research Methodology:

Interviews will first be transcribed before proceeding to thematic analysis as per [5] outlined processes which include:

Read and re-read familiarizing with the transcripts.

Developing initial codes that seem to capture the interesting features of the data.

Descriptive capturing of major concepts and their interrelationships as per the research questions.

Thematic constructing and revising descriptive clusters to ensure and guarantee logical connections.

Final production of reports weaving together themes and goals of the study.

Table 1: Descriptive Statistics of Key Variables (Quantitative Component)

Variable	Mean	Standard Deviation	Range
Sport Commitment (1–5 scale)	4.25	0.56	1–5
Mental Health (GHQ-12 Score)	2.34	1.12	0–12
Hours of Sports Participation (per week)	3.5	1.2	0–10

Table 2: Thematic Categories and Subcategories (Qualitative Component)

Theme	Subcategory	Example Quote
Social Support	Peer relationships, Team bonding	"I feel connected to my teammates, and that helps me manage stress."
Stress Relief	Coping mechanisms, Relaxation	"Playing basketball helps me forget about school stress for a while."
Self-Esteem	Confidence, Achievement	"Winning a game boosts my confidence, and that helps me feel better overall."
Academic Stress Reduction	Time management, Emotional balance	"Sports give me a break from studying, and that helps me focus better when I return to work."

RESULTS

In this section, the results from the quantitative survey alongside the qualitative interviews are presented within the context of the mixed-methods study on the effects of sports participation on the mental health of undergraduate students. The findings have been divided into two categories: quantitative results, and qualitative results.

Quantitative Results

Demographic Characteristics of the Sample

The survey was done with a sample of 500 undergraduate students. The breakdown for the sample was as follows: 55% females (n = 275) and 45% males (n = 225), with mean age 21.4 years (SD = 2.3). In this case, 60% (n = 300) of the respondents reported being actively involved in sporting activities, which included team sports, individual sports, and recreational activities. The remaining 40% (n = 200) reported no involvement in sports during the academic year.

Descriptive Statistics

The respondents were given The Sport Commitment Model Questionnaire [4] alongside The General Health Questionnaire (GHQ-12) which evaluated their mental well-being in conjunction with their level of commitment to athletics. Key variables as listed in the following table are summarized descriptively.

Table 1: Descriptive Statistics of Key Variables (Quantitative Component)

Variable	Mean	Standard Deviation	Range
Sport Commitment (1–5 scale)	4.25	0.56	1–5
Mental Health (GHQ-12 Score)	2.34	1.12	0–12
Hours of Sports Participation (per week)	3.5	1.2	0–10

Correlation Analysis

We conducted a Pearson's correlation to evaluate how sports participation and mental health outcomes are associated. There is a strong statistically significant negative correlation suggesting that lower GHQ-12 scores, which indicate better mental health, are linked with higher levels of sports participation ($r = -0.45$, $p < 0.001$). Also, a moderate positive sport-commitment with mental health outcomes correlation was noted ($r = 0.38$, $p < 0.001$). Hence, greater commitment to sports entails better mental health outcomes.

Table 2: Correlation matrix of sports participation and mental health outcomes correlations.

Variable	Sport Commitment	Hours of Sports Participation	GHQ-12 Score (Mental Health)
Sport Commitment	1	0.42**	-0.38**
Hours of Sports Participation	0.42**	1	-0.45**
GHQ-12 Score (Mental Health)	-0.38**	-0.45**	1

For every correlation presented in the table, $p < 0.001$.

Regression Analysis

A linear regression analysis was assessed in order to determine how participation in sports (both commitment and hours per week) is a predictor of mental health outcomes (GHQ-12 scores). The regression equation was significant, $F(2,497) = 41.2$, $p < 0.001$, which indicated that over 14% of the outcome in mental health ($R^2 = 0.14$) could be predicted with the model. Both sport commitment ($\beta = -0.23$, $p < 0.001$) and hours of sports participation ($\beta = -0.31$, $p < 0.001$) were found to be relevant predictors with an increase in sports participation leading to an improvement in mental health scores.

Qualitative Results

With the qualitative part, 30 participants were recruited (15 athletes and 15 non athletes) for semi-structured interviews. The interviews yielded very rich data around the students experiences and perceptions regarding the mental health benefits of sports participation.

Themes Identified

Theme 1: Social Support and Connection

Both groups, athletes and non athletes, indicated that sports as an activity provided an avenue for social interaction and relatedness. For athletes, team sports in particular helped cultivate a positive sport culture, and mitigated feelings of loneliness and stress. One of the respondents provided the following quote:

"Being part of a team gives me a sense of family."

"When I have school-related stress, I know I can always depend on my teammates to help me out."

For recreational non-athletes, the sentiments of connection were experienced, but to a lesser degree. One non-athlete noted:

"Even though I don't compete, the social part of participating in team sports makes me feel less isolated and more cared about."

Theme 2: Stress Relief and Coping Mechanism

Participants placed emphasis on the stress-alleviating benefits of sport participation. Many described physical activity as a coping mechanism to social and academic stressors. As one participant expressed:

"When I'm on the field, I can put everything else on hold. It's a mental reset for me. I have to say it has been a lot of help in managing the stress caused by school."

Athletes in particular noted the amount of emotion and mental clarity needed, to be synthesized during the intense physical exertion of practices and games. Non-athletes also noted that recreational forms of sport provide a break in concentration, with one participant stating:

"Even playing a casual game of soccer for an hour helps me feel much better. It's like a quick reset before going back to study."

Enhanced Self-Esteem and Confidence

Participants illustrated how sport participation has been associated with improved self-worth and self-confidence.

Numerous athletes mentioned a feeling of pride and a sense of satisfaction. This was a result of their athletic activities, either as an individual or as a member of a team. One of the participant's observations illustrates this:

"Winning a game gives me a sense of accomplishment. It makes me feel like I have achieved something and that positivity spills over into other areas of my life."

Even non-athletes chronicled the role of sports in building their confidence, particularly through improved skills and physical fitness. One of the non-athletes shared this:

"When I see myself getting better at a sport, I feel more confident in my abilities which definitely impacts how I approach other challenges in life."

Emotional Regulation and Resilience

A good number of students observed sports as a contributor toward the development of emotional resilience and regulation. The non-athletes and athletes emphasized how the roller coaster nature of sports, including, wins and losses, was helpful in improving coping skills, handling setbacks, and even stress in general. One of the participant's observations illustrates this:
Critically, it was noted that athletes dealt with negative emotions in a constructive manner, which enhanced their wellbeing.

Discussion

The results from the above illustrate that participating in sports should actively be encourage because they help address the mental wellbeing of undergraduate students. The strengthens of the skeletal and muscular systems particularly in older patients have shown to greatly improve their quality of life which includes how social, mobile, and independent they are perceived (Cameron et al., 77). People who are more mobile within the community are able to actively participate in social relationships and have stronger independence as well as self esteem where researchers indeed discover such mobile individuals are during journeys made with mates.

Cameron et al. Research has noted social isolation emerging from lack of mobility and community interaction puts elderly men and women on high risk leading to getting lost while accompanying on journeys as they become stressed. This stress points towards social isolation and the mobile active individuals escorting through their domains. Autonomous translates to being independent which refers to being able to take rest breaks while are able to fully control themselves without being supervised.

The Effect of Sports Participation on Mental Health

Physical activities like sports have been correlated with mental health physiologically due to the changes of muscle performing and endorphines being released along with rest like dopamine and cortisol. Neurobiolgical mechanisms encourage the need for patients with serious feelings of depression to take up sports or light physical activity in order to ameliorate while exercising lowering stress levels. Patients suffering stress linked to weakness or nervous schizophrenia tend to be less active or spend more time in reserved secluded places. Active participation leads to a increase in blood flow which can be beneficial to an increase in calm strength modifiers that can be synthesised using components of negliocortic hormones resulting in an improved state.

People encounter a wide range of mental disorders where depression is amongs the numerous health concerns marking a patients overall well being. Bolinger. Studied the relationship between chronic stressors and mental health where chronic stress tends to mark a range of issues impacting health as well with change to be put on a single stressing factor that does not change such as social redefinement leads to are constantly staring at the clock knowing change cannot take place policy psychological phenomenon.

Supported by bankers attribution theory where stress comes from crippling self blame. They explain break down as not able to remove controllable factors that value their social activity mark towards having no means managing. Stated one catastrophic change in borderless absured surroundings constructed leads the core concept of clear problems alongside disorder.

Hence, as with the aforementioned areas of physical health, mental health and its prevention should be actively promoted by universities through participation in sports.

2. Sport Commitment and Mental Health

The analysis of sport commitment as a predictor of mental health outcomes is innovative for this research. Students who reported higher levels of commitment to their sport, whether it was professional or recreational, also exhibited better mental health. This is particularly crucial because this outcome indicates that emotional and psychological value of sports participation is not just dependent on the amount of time devoted but also the degree of personal commitment to the activity.

This finding is aligned with the Sport Commitment Model [4] which claims that more committed athletes derive greater psychological satisfaction and well-being from their sport. The psychological commitment to a sport stems from intrinsic motivation, a fundamental factor influencing sustained participation in physical activity and its benefits [10]. Therefore, enrich sport commitment and the associated mental health benefits of physical activity will likely derive from consistent participation.

3. Social Support and Sports Participation

The particular aspects of mental health stemming from participation in sports are supported by social networks, and therefore social support, as illustrated by the qualitative data of this study.

Participants uniformly contended how engaging in sports enabled them to establish social interactions which, in turn, helped in the alleviation of loneliness and isolation, pervasive struggles for undergraduates. These results correspond with the research conducted by [11], which explains why social support buffers stress and mental health issues. Socialtainment, in its various forms such as team sports or group exercises, enables students to enjoy togetherness and form social bonds which is known to improve mental health.

Moreover, the engagement in sports encourages social integration the feeling of being part of something, which greatly supports mental health. Students athletes often report feeling more connected with their colleagues and the university, which may lessen the impact of psychosocial and academic challenges. This portion of empathy in advance and supportive environment is very crucial for those in the university because, these students are constantly surrounded by stressors and social tension [11].

4. Emotional Regulation and Stress Relief

The qualitative data from the study also suggested that students utilized sports as a primary method for managing stress. Many participants considered sports as an adaptive approach for their academic and personal challenges.Finally, students were able to manage their emotions and reduce stress associated with academic responsibilities through exercises that wors their mood.

Sports and other forms of physical activity, improve the psychological well-being by alleviating tension and frustration, as well as providing an outlet wherein negative feelings offered through some form of structured engaging activity can be channeled [9]. This emotional regulation is notable for undergraduate students who remain vulnerable in coping with sophisticated stressful environments because of lack of competencies to cope with the stressors.

Assessment of these frameworks reveals their ability explains the positive impact of sports participation on mental health: the bio psychosocial Model of Health, Self-Determination Theory (SDT), and Cognitive Behavioral models.

Bio psychosocial Model of Health

According to the self-care document and Health, hyphen text, [12] citation here] the amount of health outcomes is the product of the interactivity of biological, psychosocial and social factors. The reasons that physical activity leads to physiological psychological, and social systems psychosocial, balanced wellness rationally explains the broad mental health benefits of sports participation on.

Sports and other forms of physical activity, improve the psychological well-being by alleviating tension and frustration, as well as providing an outlet wherein negative feelings offered through some form of structured engaging activity can be channelled.

According to [10] in Self-Determination Theory (SDT), well-being is increased by intrinsic motivation that stems from the satisfaction of basic psychological needs (competence, autonomy, and relatedness). In relation to sports, participants get an enhanced sense of self-worth as they progress in skills and achieve personal or team goals. This satisfaction encourages other people to actively participate in sports and promotes mental well-being.

Psychologically, sports activities allow students to interact and socialize with their peers, thus providing social integration and support, which is important for their mental health. The Social Support Hypothesis [11] suggests that social connections are important for one's health since they help to mitigate the negative impact of stress and mental disorders.

Self-Determination Theory

Individuals who engage in fulfilling actionable tasks within Self-Determination Theory are attributed to having positive purpose driven outcomes concerning motivation and mental health is, as postulated by SDT in [10]. In the context of sports, students are likely to experience psychological benefits when participation is driven by enjoyment of the activity and feeling of competence in it. The balance of intrinsic motivation with deeper involvement and commitment as shown in this study enhances mental health outcomes.

Practical Implications

Encouraging sport participation within universities

The clear and strong mental health benefits highlighted in this study necessitate that universities integrate physical activity programs within the support services offered.

From competitive to recreational activities, universities can provide a range of accessible sports and fitness programs tailored for even the most diversely skilled individuals. By providing students with a plethora of sporting opportunities, universities can harness a powerful tool that enables efficient stress relief, social integration, and helps to regulate emotions.

Integrating Sports-Based Mental Health Interventions

With such findings, it may be beneficial to develop specific sport-based interventions for students with mental health difficulties. For instance, the provision of sports therapy, or exercise therapy for anxious and depressed students, can serve as a supplement to the existing mental health care system. Especially, participation in group sports may provide an exposure to a nurturing environment that improves the holistic health of the individuals.

Social Support and Sports

Given the role of social support in sports, universities need to be concerned about catering for the creation of appropriate social contexts within sports so that students can achieve important social interactions. This involves the marketing of physical activities such as team sports, organizing physical peer support groups, or coordinating other social functions that engage participants in physical movement. These social interactions can address the problem of increased feelings of loneliness, which poses a great risk to one's mental health—particularly in a university setting [11].

Limitations and Future Directions

Despite the findings of this particular study concerning the impact of sports participation on mental health, there are some limitations that must be considered.

The cross-sectional approach utilized for this study does not allow for causal relationships to be established between sports participation and mental health. There is a need for longitudinal studies focused on addressing the change in mental health over time in relation to participation in sports to establish causation and directionality.

Furthermore, the study relies heavily on self-reported data which could be biased due to social desirability or recall bias. More objective measures of physical activity and mental health, such as accelerometer data or clinical assessments, could be utilized in future studies to mitigate these biases.

Lastly, the study was conducted at a single university, which significantly restricts the scope of findings. Subsequent research should collect data from multiple universities and even widen the geographical scope to other countries to see if the benefits of sports participation are consistent across various cultural and institutional contexts.

Final Statement

All in all, participating in sporting activities serves as a significant mental health intervention for undergraduates, which is supported by evidence from the study. Sports participation was shown to reduce anxiety, depression, and stress due to improved physical health, increased self-esteem, enhanced social support, and the ability to self-manage emotions. It is critical to emphasize participation in sports as a core element of mental health promotion programming within higher learning institutions.

The use of longitudinal or experimental paradigms will further our understanding of the causal pathways and consequences of sports on psychological wellbeing.

Funding: This research received no external funding.

Acknowledgments: None.

Conflicts of Interest: The authors declare no conflict of interest.

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