

## The role of sports in promoting a healthy lifestyle among university students

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### Abstract

This study examined the role of sports in promoting a healthy lifestyle among university students. A quantitative cross-sectional survey design was used to collect data from 100 students enrolled in BS programs at universities. Data were collected using a structured questionnaire with two sections: demographic information and items measuring physical health, psychological well-being, social development, and academic performance using a five-point Likert scale. The collected data were analyzed using the Statistical Package for Social Sciences (SPSS). Descriptive statistics (mean and standard deviation) were used to summarize the data, while independent sample t-tests and Pearson correlation analysis were applied to examine differences and relationships among variables. The descriptive results indicated that sports participation improved all study variables. Social development recorded the highest mean score ( $M = 3.92$ ,  $SD = 0.65$ ), followed by physical health ( $M = 3.85$ ,  $SD = 0.62$ ) and psychological well-being ( $M = 3.78$ ,  $SD = 0.58$ ). Academic performance showed the lowest mean score ( $M = 3.70$ ,  $SD = 0.60$ ) but still reflected a positive association with sports participation. The independent sample t-test results revealed statistically significant differences between sports participants and non-participants across all variables. Sports participants reported better physical health ( $M = 4.12$ ) compared to non-participants ( $M = 3.40$ ),  $p < 0.001$ . Similarly, participants showed higher psychological well-being ( $M = 4.05$ ),  $p < 0.001$  and social development ( $M = 4.20$ ),  $p < 0.001$ . Academic performance was also higher among sports participants ( $M = 3.88$ ),  $p < 0.004$ . Pearson correlation analysis indicated significant positive relationships among all variables at the 0.01 level of significance. Physical health was

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strongly correlated with psychological well-being ( $r = .62$ ) and social development ( $r = .58$ ). Additionally, social development showed a strong association with academic performance ( $r = .60$ ), and psychological well-being was positively related to academic performance ( $r = .54$ ). The findings confirm that sports participation significantly contributes to improved physical health, psychological well-being, social development, and academic performance among university students, highlighting the importance of sports in promoting a healthy lifestyle at the university level.

**Keywords:** Sports Participation, Healthy Lifestyle, Physical Health, Psychological Well-Being, University Students.

### **Introduction**

Physical activity and sports are known as key elements of a healthy lifestyle. Sports have benefits that improve physical fitness, social, and psychological well-being. Regular engagement in sports improves cardiovascular fitness, muscular strength, and flexibility. Sports also lower the risk of chronic conditions such as obesity, diabetes, and heart disease (Astatullayev & Rasidova, 20225).

In university life, academic demands and a sedentary lifestyle are common. Participation in sports is an essential counterbalance to stress, enhancing both physical health and quality of life. The psychological effects of sports contribute to mental health by reducing stress and anxiety through the release of mood-boosting chemicals and by improving social interaction, which can reduce feelings of isolation and enhance emotional balance (Yahi et al., 2025).

The role of sports in university life enables researchers and educators to understand how they influence students' multidimensional well-being. Studies have shown that individuals who engage in competitive and recreational sports have a higher quality of life and lower stress levels than their less active peers (Mahardika et al., 2025). Participation in sports has been linked to positive academic outcomes. Sports enhance cognitive functions essential for effective academic performance (Sallis et al., 2000).

This study explores the benefits of sports participation and highlights its importance in promoting a healthy lifestyle among university students. The acknowledged role of sports in students' health is important for policymakers and curriculum development. Universities have sports programs and facilities, promote healthier behaviors, support students' psychological and social development, and academic success. Integrating sports into students' university life can enhance resilience to academic pressure and promote a healthy lifestyle through physical activity, both of which contribute to reducing healthcare costs and improving overall well-being (Ahmed et al., 2025).

### **Objectives of the study**

1. To examine the relationship between sports participation and physical health among university students.
  2. To determine the effect of sports participation on the psychological well-being of university students.
  3. To assess the role of sports in enhancing social development among university students
  4. To analyze the association between sports participation and academic performance among university students.
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**Hypothesis of the study**

**H1:** There is a significant positive relationship between sports and physical health among university students.

**H2:** Sports participants significantly improve psychological well-being among university students.

**H3:** Sports participation has a significant positive effect on social development among university students.

**H4:** There is a significant positive association between sports participation and academic performance among university students.

**Literature Review**

Population in sports and structured physical activity has been consistently linked with improved physical health outcomes among university students. Regular participation in sports and physical activities enhances self-perceived health status and physical strength, promotes healthier behaviors, and contributes to overall cardiovascular and musculoskeletal function (Jo et al., 2025). These benefits are associated with global health guidelines that highlight the importance of physical activity to reduce the risk of diseases such as obesity and diabetes, especially among university students who face a sedentary lifestyle. The existing literature review shows the psychological benefits of sports participation for students, indicating that physical activity improves mental well-being by reducing stress and improving self-efficacy and emotional regulation. These reviews show that improved physical activity has a relationship with improved self-esteem and reduced depression and anxiety in universities. Furthermore, sports provide social support and opportunities for physical activity behavior contribute significantly to better psychological health benefits (Li & Huang, 2025). The clear evidence of health benefits, engagement in rates in sports and physical activity remains inconsistent among universities due to motivational, psychological, and social factors. Research indicates that students' preferences, achievement emotions, and motivation play an important role in their levels of sports participation. Sports are associated with positive emotions and higher intrinsic motivation, linked to engagement in physical activity (Sun et al., 2025). The study on psychological barriers indicates that academic pressure, lower motivation, and tiredness can lead to restrictions in participation regularly, exploring the need for supportive environments that provide facilities for sustained involvement (Dishman, et al., 2025)

Regular participation in sports enhances cardiovascular fitness, muscular strength, and overall body functioning (Bull, et al., 2020). Sports engagement has been strongly linked with enhanced psychological well-being. Studies revealed that those who participated in sports regularly have lower levels of stress and anxiety (Rodriguez-Ayllon et al., 2021). Sports stimulate endorphin release, improve self-confidence, and improve emotional well-being. These are very important for coping with academic pressure (Biddle, et al., 2021).

In Pakistan, engagement in sports at the university level faces socio-cultural and institutional barriers. Studies indicate that insufficient facilities, funding, and a lack of organized sports programs minimize the students' involvement (Manzoor, et al., 2020).

Sports promote social integration and academic engagement among university students.

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Participation in sports improves communication skills and cooperation. These skills are essential for social well-being (Eime, et al., 2020). Existing literature indicates that physically active students show better concentration, self-discipline, and classroom engagement than sedentary students (Donnelly, et al., 2020)/ These social and psychological benefits strengthen the argument that sports are a multidimensional tool for improving student life. These challenges exist in research from Pakistan suggests that students who actively engage in university sports show better self-confidence, social connections, and overall health compared with those who do not participate (Khan, et al., 2022). Universities provide a sports environment demonstrate improved student well-being outcomes. Therefore, strengthening institutional policies and awareness programs in Pakistan can enhance the role of sports in promoting a healthy lifestyle among university students.

### **Research Methodology**

#### **Research Design**

This study used a quantitative research design. This study used a descriptive cross-sectional survey approach. This design was selected because it permits the researcher to determine the relationship between sports participation and healthy lifestyle factors among university students at a single point in time. The survey design was considered suitable for data collection from a large population efficiently and effectively.

#### **Population of the Study**

The population of the study was students enrolled in various BS programs at universities. Both students are actively participating in sports, and those who are not participating were included to allow comparison between groups.

#### **Sample and Sampling Technique**

A sample of 100 university students enrolled in BS programs was selected for the study. A simple random sampling technique was used for data collection. The sample of the study included participants from different academic disciplines.

#### **Research Instrument**

The data were collected through a questionnaire consisting of sports participation and healthy lifestyle behaviors. The questionnaire has two sections. The first section includes demographic information such as age, gender, and level of sports participation. The second section measured physical health and psychological well-being, social development, and academic engagement by using a five-point Likert scale.

#### **Data Collection Procedure**

Permission was obtained from the concerned authority. The questionnaire was distributed among university student with their consent and informed about the purpose of the study. The participants were also informed that their responses would remain confidential and would be used only for academic purposes.

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**Data Analysis**

Data were coded and entered into the Statistical Package for Social Sciences (SPSS) for analysis. Descriptive statistics, including mean, standard deviation, frequency, and percentage, were used to summarize the data. Inferential statistics, including t-test, correlation analysis to measure the relationship, and variances among sports participants and non-participants.

**Ethical considerations**

Ethical principles were followed during the research process. Informed consent was obtained from all participants. The confidentiality of participants was maintained, and no personal information was disclosed.

**Data Analysis****Descriptive Statistics of the Study Variables (N = 100)**

Variables	Mean	Standard Deviation
Physical Health	3.85	0.62
Psychological Well-Being	3.78	0.58
Social Development	3.92	0.65
Academic Performance	3.70	0.60

The analysis shows that students reported a positive impact of sports participation. Social development recorded the highest mean ( $M = 3.92$ ), suggesting that sports strongly contribute to interpersonal relationships and teamwork skills. Academic performance had the lowest mean ( $M = 3.70$ ), but still reflected a positive association with sports participation. The standard deviations show moderate variability in responses.

**Inferential Statistics**

Inferential statistics were used to measure the research hypothesis. An independent t-test was conducted to compare sports participation and non-participation. Moreover, Pearson correlation analysis was used to determine relationships among variables.

**Independent T- Test (Sports Participations vs Non-Participations)**

Variable	Participants Mean	Non-Participants Mean	t-value	p-value
Physical Health	4.12	3.40	5.21	0.000
Psychological Well-Being	4.05	3.50	4.36	0.001
Social Development	4.20	3.55	5.02	0.000
Academic Performance	3.88	3.52	2.98	0.004

The results show a statistically significant difference between sports participation and non-participation across all variables ( $p < 0.05$ ). Students who engage in sports report better physical health, psychological well-being, social development, and academic performance

than non-participants. Therefore, all research hypotheses are accepted.

### **Pearson Correlation Analysis**

Variables	1	2	3	4
1. Physical Health	1			
2. Psychological Well-being	.62	1		
3. Social Development	.58	.65	1	
4. Academic Performance	.49	.54	.60	1

Correlation is significant at the 0.01 level.

The correlation results in strong positive relationships among all study variables, and physical health is positively correlated with psychological well-being ( $r = .62$ ) and social development ( $r = .58$ ). Social development shows a strong association with academic performance ( $r = .60$ ). These findings confirm that sports participants contribute to multiple dimensions of a healthy lifestyle.

### **Findings, Conclusions, and Recommendations**

#### **Findings**

The Pearson correlation analysis revealed that all study variables were positively and significantly related to each other at the 0.01 level of significance. Physical health indicated a strong positive relationship with psychological well-being ( $r = .62$ ,  $p < 0.01$ ) and social development ( $r = .58$ ,  $p < 0.01$ ). Positive correlation was observed with academic performance ( $r = .54$ ,  $p < 0.001$ ). Social development shows a positive link with academic performance ( $r = 0.60$ ,  $p < 0.01$ ). Overall, the findings of the study indicate that betterment in physical health is linked to psychological well-being and social development. It also enhanced academic performance among students.

#### **Discussion**

The purpose of the study was to identify the role of sports in promoting a healthy lifestyle among university students. Findings of the study indicated that sports participation has a positive effect on health, social, and psychological well-being, and academic performance. Descriptive results showed high score within all variables. Social integration ( $M = 3.92$ ) and physical health ( $M = 3.85$ ) scoring highest,

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integration (M = 3.92) and physical health (M = 3.85) scoring highest, exploring that students perceive sports as beneficial for both physical fitness and personal growth. Inferential results strengthen these findings. The t-test indicated a significant difference between athletes and non-athletes ( $p < 0.05$ ). Sports participants revealed better physical health (M = 4.12) and psychological well-being (M = 4.05). The social development (M = 4.20) and academic performance (M = 3.80) were higher than those of non-athletes.

The correlation results also showed a strong positive relationship among the variables, particularly between psychological well-being and social development ( $r = .65$  and between social development and academic performance ( $r = .60$ ). These findings suggest that sports engagement results in students' health and overall development. These results are aligned with existing literature that regular sports engagement improves cardiovascular fitness, reduces stress, and anxiety. It also enhances social development and supports academic engagement. The findings of this study, along with previous research, show that sports positively affect the psychological well-being and academic performance (Biddle, et al., 2019). The strong positive relationship between psychological well-being and social development supports the work of Eime, et al., (2013), who revealed that sports participation enhances social interactions and emotional health. According to Warburton and Berdin (2017), regular sports activities significantly improve both physical and psychological health. It also reduces the risk of chronic diseases and improves overall well-being. Singh, et al., (2019) claimed that sports are positively linked with improved academic performance and cognitive functioning among students. These results support the hypothesis that sports offer benefits such as improved physical health, self-confidence, teamwork, and resilience. Therefore, sports participation is considered an important element of a healthy lifestyle at the university level.

### **Conclusion**

Based on findings, it is concluded that sports promote a healthy lifestyle among university students. Athletes reported better physical health and improved psychological health than non-athletes. Sports promote stronger social connections and enhanced academic performance. The study also explores that sports play an important role in the development of a multidimensional tool in universities. The study also underscores that regular participation in sports can lead to a healthier lifestyle. Sports promote self-confidence, socially interactive students, and enhanced overall university outcomes. The findings of the study highlight that regular participation in sports plays an important role in improving the overall lifestyle of university students. Sports not only improve physical fitness but also contribute positively to students' psychological well-being and social development. The students who engage in sports have developed better self-confidence, teamwork, and academic engagement. Therefore, promoting sports at the university level can significantly support holistic development and long-term well-being.

### **Recommendations**

1. Based on the findings, it is recommended that universities should invest in organized sports programs, facilities, and awareness seminars to promote students' participation in sports. Sports culture should be integrated into campus life that can enhance students' well-
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being and academic success.

2. It is also recommended that policymakers in higher education sectors should consider sports as a compulsory component of students' development. Providing institutional support, resources, facilities, and participation opportunities can maximize the physical and social benefits of sports participation.

3. It is recommended that universities should improve sports infrastructure and provide equal opportunities for all students

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