

Impact of Sports Facilities on Student Sports Performance: Perspective of Pets

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ABSTRACT

This study investigated the perceptions of Physical Education Teachers (PETs) regarding the impact of sports facilities on students' sports performance in colleges of Azad Jammu & Kashmir (AJ&K). Descriptive research has facilitated this study. Data were collected through a self-developed questionnaire, administered to 100 PETs, (male = 60 & female = 40) of the study. Descriptive and inferential statistics were used to analyze the data. Findings indicate that both male and female PETs expressed moderate satisfaction with sports facilities, though male PETs generally rated the adequacy, maintenance, and sufficiency of sports equipment higher than their female counterparts. On the other hand, female PETs reported lower motivation among students due to limited access to quality sports resources and placed greater emphasis on the availability of specialized facilities for skill development. The study concluded that sports facilities at college level play a crucial role in shaping student performance, gaps remain in their adequacy, maintenance, and accessibility, particularly for female athletes. Addressing these gaps, which can enhance student engagement and sports achievements. Recommendations include regular facility maintenance, equitable access to resources for both genders, and integrating sports facility usage into structured training programs to optimize student performance.

Keywords: Sports facilities, sports performance, physical education teacher, gender

INTRODUCTION

The relationship between the efficiency of college's athletes and sports facilities blossom intensely due to the social, geographical, and economical determinants of the region of Azad Jammu Kashmir (AJK), which forms a part of the northern Pakistan, has a multi-faceted terrain and climate which may have certain challenges and opportunities for athletic training and performances. Further, the semi-autonomous status of AJ & K might have an impact on the socioeconomic indicators and thus the quality of sports facilities in comparison to other regions. Considering the rugged terrain and climate conditions, the availability of well-equipped sports facilities are extremely important for college level athletes to enhance their skills and maintain their fitness. These factors must be kept in mind when measuring the impact of sports facilities on the level of efficiency of college athletes.

According to White (2022), athletics at college level cannot be effectively undertaken without the presence of sports facilities which provide the required infrastructure to train, develop and compete in different sports at the college level. These facilities range from large open outdoor fields to modern enclosed indoor sporting arenas complete with different sets of spaces and equipment required by athletes and teams. For college athletes, the availability, accessibility, and quality of specially designated sports facilities are critical to ensure desirable experiences and performance outcomes, thus attracting the attention of scholars, educators, policymakers, and sports administrators (Lin et al, 2017). The essence of sports facilities is to have defined places where athletes can undertake organized training and skill practice, and prepare for competitions. Indoor training facilities offer sheltered environments that enable athletes to practice and develop their craft year-round, regardless of weather conditions or environmental factors. Conversely, outdoor venues provide athletes with opportunities for sport-specific training and conditioning in natural settings, allowing for the integration of environmental elements and terrain challenges into their workouts (Bompa, 2015).

However, differences in the allocation of sports facilities across education institutions can worsen the gaps posed by athlete opportunity and achievement. More endowed colleges and universities are likely to expend more funds on the construction of modern facilities as this gives their athletes an edge over other institutions. These gaps go beyond the construction of facilities to include availability of coaches, sports medicine specialists, and support staff, thus continuously creating over-expanded gaps between the wealthy and the poor institutions. On the other hand, athletes from the lower level of the society have higher chances of being denied highly resourceful sports facilities and supporting services, which restrains their potential at competitive sports (Mark, 2020).

Miller and Kissinger (2009) claim that bridging these gaps involves systemic measures for providing athlete-centered facilities for different college students irrespective of where they studied. Educational institutions should make provisions for spending on construction, repair, and use of sports facilities in order to facilitate all athletes from different social classes. In addition, joint collaboration among schools, government bodies, and private sector can help in utilizing resources, knowledge, and experiences for better management and operations of sports facilities. In this way, the inequities in availability of sports facilities to the colleges will be discouraged, and may enhance the scope of collegiate sports for the benefit of students.

While college sports competitions are perceived to involve sports skills and competitive success, the influence of sports facilities is deeper than mere physical training of the students: It touches on many other aspects of their development and performance. Actually, there is evidence that engagement in sports during college is associated with high performance in studies, increased self-esteem, and enhancement of job opportunities for the student athletes. As such, understanding the relationship between sports facilities and student performance is of paramount importance for colleges and universities seeking to promote holistic development of students (Mwenda, 2022).

One of the key way, in which sports facilities influence student performance is through their role in supporting student-athletes' physical and mental well-being. High-quality sports facilities provide student-athletes with access to state-of-the-art training equipment, expert coaching staff, and comprehensive sports medicine services, all of which contribute to their overall health and fitness (Li et al., 2024). Regular physical activity has been shown to have numerous benefits for academic performance, including improved concentration, enhanced cognitive function, and reduced stress levels. Additionally, participation in team sports fosters valuable life skills such as time management, leadership, and teamwork, which can translate into improved academic performance and success in the classroom (Kang, Meng, & Su 2024).

Furthermore, sports facilities serve as hubs of social interaction and community building within collegiate sports programs, offering student-athletes' opportunities to forge meaningful connections with peers,

coaches, and support staff. Locker rooms, team meeting spaces, and athletic training facilities serve as spaces where student-athletes can come together to bond, share experiences, and support one another both on and off the field. These social connections contribute to a sense of belonging and connectedness among student-athletes, which has been linked to higher levels of academic engagement, motivation, and persistence (Schwarz, 2016).

According to Cunningham (2019) sports facilities play a crucial role in promoting diversity, equity, and inclusion within collegiate athletics, providing opportunities for students from diverse backgrounds to participate and excel in sports. Access to high-quality sports facilities ensures that all student-athletes, regardless of their socio-economic status, race, or gender, have the resources and support they need to succeed. Moreover, colleges and universities can use sports facilities as platforms for promoting diversity and fostering a culture of inclusivity within their athletic programs, thereby enhancing student performance and satisfaction (Johnson et al., 2009).

This research will add to the growing body of knowledge concerning the relationship between infrastructure development and sports participation, particularly in the context of male and female government colleges of Azad Jammu and Kashmir, a region that has remained underrepresented in sports sciences research. By exploring how the availability, accessibility, and quality of sports facilities influence student engagement in sports activities, this study will fill a crucial gap in the existing literature. Furthermore, it will provide a contextual understanding of how regional, cultural, and environmental factors interplay with infrastructural development to shape sports behavior among students.

Objective of the Study

1. To assess the perception of male physical education teachers regarding the effect of sports facilities upon students' sports performance.
2. To assess the perception of female physical education teachers regarding the effect of sports facilities upon students' sports performance.

LITERATURE REVIEW

The development of sports is deeply rooted in human history and has evolved alongside the progress of civilizations. From primitive forms of play and physical activity to highly organized international competitions, sports have served various social, cultural, religious, and political functions throughout history (Kretchmar et al., 2023). Sports play a significant role in enhancing both the physical health and psychological development of individuals. Across the globe, participation in sports is associated with numerous benefits that contribute to the overall well-being and personality formation of individuals. In the context of Pakistan and other developing countries, sports also serve as a tool for social integration, youth development, and positive behavioral transformation ().

Role of Sports Facilities on the Performance of Athletes

The performance of athletes is influenced by multiple factors, including coaching, nutrition, psychological support, and training environments. Among these, the availability and quality of sports facilities play a foundational role in shaping athletic performance. Modern, accessible, and well-maintained sports infrastructure directly affects training efficiency, injury prevention, recovery, and overall motivation. This

literature review explores the impact of sports facilities on athlete performance, with a focus on both international and Pakistani sports contexts (Yang, 2024).

Facilities as a Key Element in Athlete Development

High-quality sports facilities provide the necessary environment for technical, tactical, and physical training. They include specialized equipment, surfaces, and venues that simulate competitive conditions, thereby enabling athletes to practice under real-game scenarios. According to Bloom (1985), sports facilities are central to the developmental stages of elite athletes. From grassroots to elite level, athletes require access to appropriate infrastructure to progress through stages of training and competition. Moreover, Bailey et al. (2013) highlight that consistent access to modern facilities increases training frequency, precision, and performance output. Poor infrastructure, on the other hand, results in limited practice time, and increased injury risk due to substandard playing conditions.

Influence on Physical and Technical Performance

Modern sports infrastructure is designed to optimize biomechanics, reduce injury risk, and enhance recovery. Synthetic tracks, professional-grade gymnasiums, swimming pools, and artificial turf fields help athletes reach their peak physical capacity. A study by Balyi and Hamilton (2004) indicated that athletes with access to high-performance centers showed statistically better results in speed, agility, and endurance tests compared to those training in under-resourced environments. In Pakistan, where many athletes train in outdated or poorly maintained facilities, performance is often compromised. Athletes report struggling with issues such as worn-out tracks, lack of lighting, and inadequate gym equipment, which limits their ability to train efficiently (Rehman & Ali, 2019).

Psychological Motivation and Athlete Morale

Sports facilities also influence athlete motivation, discipline, and confidence. Well-maintained, clean, and technologically equipped environments create a sense of professionalism and respect for the sport. According to Deci & Ryan's Self-Determination Theory (2000), the environment plays a crucial role in intrinsic motivation. Athletes who feel supported by their training environment demonstrate higher commitment and performance levels. A qualitative study by Shahid and Akram (2021) found that Pakistani athletes training in private academies with better infrastructure feel more confident and motivated compared to those using public-sector sports facilities, which are often neglected or politically mismanaged.

Recovery, Injury Prevention, and Sports Science Support

Advanced sports facilities also incorporate rehabilitation centers, sports medicine units, and scientific monitoring equipment to assess performance and manage injury risks. These elements are essential for long-term athletic performance and sustainability. According to McGuigan (2017), strength and conditioning centers equipped with performance tracking tools improve athlete recovery and reduce injury downtime by 30%. In Pakistan, however, very few training centers such as the Pakistan Sports Complex in Islamabad or the National High Performance Centre in Lahore offer physiotherapy and recovery facilities. Many provincial training centers lack qualified sports medicine professionals, leading to prolonged athlete injuries (Yousaf & Tariq, 2020).

METHOD & MATERIAL

Research Design

In this study, the researcher has utilized descriptive research design, which is more relevant to the variables included in the study, in order to examine the impact of sports facilities on students' sports performance from the perspective of PETs. The researcher also followed cross-sectional survey method for data collection from the participants. In cross-sectional method of survey, data is collected in one time from the participants.

Population and Sampling

All the male and female physical education teachers were the population of the study. According to the available data, there were total = 100 PETs in AJK, Pakistan. All 100 PETs, currently working in government colleges across Azad Jammu and Kashmir (AJK) selected through purposive sample method. This approach was adopted to obtain accurate and reliable information regarding the availability of sports facilities and their impact on student performance.

Instruments of the Study

A self-administered questionnaire consisting of four sections was used for data collection. The first section aimed at capturing the demographic characteristics of the PETs involved in the research. Section B sought the views of PETs on the sports facilities available in their colleges, In Section C, the PETs' views regarding the influence of these facilities on the students' performance. While, section D sought to determine the general perceptions of PETs in regard to sports facilities and student performance. The scale was consist of fifteen items, having five point likert scale type, ranging from strongly disagree = 1, to strongly agree = 5.

Pilot Study

It is conducted before the actual data collection begins to test the feasibility, reliability, and validity of research instruments. For pilot testing 15 questionnaire were divided to the respondent.

Validity and Reliability of Instruments

For the validity of instrument, the scale was reviewed by a panel of experts in the field of sports sciences. These experts evaluated the relevance, clarity, and appropriateness of each item in relation to the study objectives. Whereas, the reliability of the questionnaire was assessed using Cronbach's Alpha coefficient, which measures internal consistency. The cronbach's alpha value for all three sections (sports facilities, sports performance, & perception of PETs) are 0.89, 0.80, & 0.90, respectively.

Data Analysis

The researcher has used SPSS-27 version for analysis of data. In the current study, the researcher has used both descriptive (mean, frequency, percentage, and standard deviation) and inferential statistics (one sample t-test) for data analysis.

Descriptive Results

Table 1. Gender wise analysis of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	60	60.0	60.0	60.0
	Female	40	40.0	40.0	100.0
	Total	100	100.0	100.0	

The above table shows the gender distribution of the respondents. Out of the total 100 respondents, 60% were male, and 40% were female. The valid percentage for both male and female respondents is the same as their frequency percentage, indicating no missing data. The cumulative percentage reaches 100%, which confirms that all respondents are accounted for.

Testing of Hypothesis

H_{A1}. Male physical education teachers have positive perception regarding the impact of sports facilities on student's sports performance.

Table 2 One Sample t-test

Male	N	Mean	Std. Deviation	Std. Error Mean
Overall Perception	60	2.4233	.56726	.07323

The result of this table presents the overall perception of male physical education teachers regarding the impact of sports facilities on students' sports performance. With a sample size of 60, the mean perception score is 2.4233, with a standard deviation of 0.56726. The standard error of the mean is 0.07323, indicating the precision of the sample mean estimate, suggests that male physical education teachers have a moderately positive perception of the impact of sports facilities on student performance.

Table 3 One Sample t-test

Male	Test Value = 3					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Overall Perception	-7.874	59	.000	-.57667	-.7232	-.4301

The output of the above table indicates that the perception of male physical education teachers regarding the impact of sports facilities on students' sports performance is significantly lower than the test value of 3. With a mean perception score of 2.4233 and a t-value of -7.874, the test shows a statistically significant

difference ($p = 0.000$). The negative mean difference (-0.57667) and the 95% confidence interval (-0.7232 to -0.4301) further confirm that male teachers' perception is not strongly positive. Instead, their views tend to be more neutral to slightly negative, suggesting that they may not fully agree that sports facilities have a substantial positive impact on student performance.

HA2. Female physical education teachers have positive perception regarding the impact of sports facilities on student's sports perform

Table 4 *One-Sample Statistics*

Male	N	Mean	Std. Deviation	Std. Error Mean
Overall Perception	40	2.4883	.56576	.08946

The findings of one-sample statistics for female physical education teachers shows that their perception of the impact of sports facilities on students' sports performance has a mean score of 2.4883 based on a sample of 40 respondents. The standard deviation is 0.56576, indicating some variation in responses, while the standard error of the mean is 0.08946, reflecting the precision of the sample mean estimate. The mean score (2.4883) is below 3, it suggests that female physical education teachers do not have a strongly positive perception of the impact of sports facilities on student performance. However, further statistical testing is needed to determine if this difference from the neutral point is statistically significant.

Table 5 *One Sample t-test*

Male	Test Value = 3					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Overall Perception	-5.720	39	.000	-.51167	-.6926	-.3307

The result of one-sample t-test for female respondents indicates that their overall perception about the impact of sports facilities on students' sports performance is significantly different from the test value of 3 (neutral perception). The obtained t-value is -5.720 , with 39 degrees of freedom, and a p-value of $.000$, which is less than the standard significance level of 0.05 . This suggests a statistically significant difference between the mean perception score and the test value. The mean difference is $-.51167$, with a 95% confidence interval ranging from $-.6926$ to $-.3307$, indicating that the actual mean perception score is lower than the neutral point of 3. These findings suggest that female respondents perceive the impact of sports facilities on students' sports performance as less favorable than neutral.

CONCLUSION

The study concluded that male physical education teachers' (PETs') opinions about sports facilities at AJ&K colleges show a moderate degree of satisfaction in a number of areas. These results imply that although male PETs recognize the value of sports facilities, there are some areas in which they should be improved to increase their efficacy in raising student performance and engagement. However, according to the second result, female PETs are somewhat satisfied with sports facilities in a number of ways. However, lower grades were given to elements that need to be improved in order to better promote student sports performance, such as the availability of high-quality facilities as an incentive and the relationship between facility quality and student accomplishments.

DISCUSSION

The study examined the perceptions of male and female physical education teachers (PETs) regarding sports facilities in colleges across AJ&K and their impact on student performance. The findings reveal moderate satisfaction with sports facilities, with male PETs generally holding slightly more favorable views than their female counterparts. Male PETs rated the adequacy, maintenance, and location of facilities higher, which aligns with research suggesting that men in sports administration often express greater confidence in resource availability (Eime et al., 2015). This difference may reflect structural or cultural factors, such as varying access to or use of facilities by male and female athletes. However, both groups expressed similar perceptions of the role of sports facilities in student training and the administration's responsiveness to feedback. These findings are consistent with studies indicating that well-maintained and adequately distributed sports facilities are critical for fostering a positive training environment (Bredemeier & Shields, 2019).

The impact of sports facilities on student performance also showed gender-based nuances. Male PETs emphasized the role of well-maintained facilities in enhancing competition performance, reflecting a competitive orientation often associated with male sports administration (Green & Oakley, 2017). On the other hand, female PETs rated the availability of specialized facilities for skill development slightly higher, highlighting a focus on the developmental aspects of sports training. This difference aligns with prior findings that women in sports often prioritize developmental and holistic approaches over competitive outcomes (Cooky & LaVoi, 2012). Interestingly, both groups rated the correlation between facilities and student achievements relatively low, indicating skepticism about the direct impact of infrastructure alone on performance. This finding supports the argument that while facilities are foundational, their efficacy depends on integration with effective coaching, training, and athlete engagement (Van der Mars, 2020).

Challenges faced by female athletes emerged as a shared concern among PETs, particularly among female respondents. The variability in female PETs' responses regarding these challenges suggested diverse experiences and perspectives, likely influenced by institutional differences and resource disparities. Previous research has documented systemic barriers for female athletes, including limited access to quality facilities and support, which can hinder their participation and performance (Eime et al., 2015). The findings of this study reinforce the need for gender-sensitive planning in sports facility development and resource allocation. Both male and female PETs agreed on the importance of feedback mechanisms, reflecting a shared recognition of administrative efforts but also signaling areas for improvement. As Green and Oakley (2017) argued that involving stakeholders like PETs in decision-making processes can help align sports infrastructure with the needs of students.

The study highlights moderate satisfaction among PETs regarding sports facilities, with differences reflecting gender-specific priorities and challenges. The findings emphasize the need for a balanced approach that combines infrastructure development with gender-sensitive practices and stakeholder

engagement. By addressing these aspects, institutions can better harness sports facilities to promote equitable participation and enhance student performance.

RECOMMENDATION

1. Institutions should invest in regular maintenance and upgrades of sports facilities to enhance student participation and performance.
2. Policy makers, sports departments, and institution should focus on improving sports facilities for female athletes, ensuring equal access to resources and equipment.
3. Institution and sports department should incorporate more training programs that emphasize the effective use of available sports facilities to improve student engagement and performance.

Conflict of Interest

The researcher claims no conflict of interest.

REFERENCES

- Bailey, R., Hillman, C., Arent, S., & Petitpas, A. (2013). Physical activity: An underestimated investment in human capital? *Journal of Physical Activity and Health*, 10(3), 289–308.
- Balyi, I., & Hamilton, A. (2004). Long-Term Athlete Development: Trainability in childhood and adolescence. National Coaching Institute British Columbia.
- Bompa, T. O., & Carrera, M. (2015). Conditioning young athletes. *Human Kinetics*.
- Bredemeier, B. J., & Shields, D. L. (2019). Sport, responsibility, and ethics. *Routledge*.
- Cooky, C., & LaVoi, N. M. (2012). Playing but losing: Women's sports after Title IX. *Contexts*, 11(1), 42-46.
- Cunningham, G. B. (2019). Diversity and inclusion in sport organizations: A multilevel perspective. *Routledge*.
- Deci, E. L., & Ryan, R. M. (2000). The “What” and “Why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.
- Eime, R. M., Young, J. A., Harvey, J. T., Charity, M. J., & Payne, W. R. (2015). A systematic review of the psychological and social benefits of participation in sport for children and adolescents: Informing development of a conceptual model of health through sport. *International Journal of Behavioral Nutrition and Physical Activity*, 10(1), 98.
- Green, M., & Oakley, B. (2017). Elite sport development systems and playing to win: Uniformity and diversity in international approaches. *Leisure Studies*, 20(4), 247-267.
- Kang, X., Meng, Q., & Su, C. H. (2024). School-Based Team Sports as Catalysts for Holistic Student Wellness: A Narrative Review. *Behavioral Sciences*, 14(7), 528.

- Kretchmar, R. S., Dyreson, M., Llewellyn, M. P., & Gleaves, J. (2023). History and philosophy of sport and physical activity. *Human Kinetics*.
- Li, J., Leng, Z., Tang, K., Na, M., Li, Y., & Alam, S. S. (2024). Multidimensional impact of sport types on the psychological well-being of student athletes: A multivariate investigation. *Heliyon*, 10(11).
- Lin, J., Paulson, L., Romsa, B., Walker, H. J., & Romsa, K. (2017). Analysis of factors influencing the college choice decisions of NCAA Division II elite track and field athletes. *International Journal of Sports and Physical Education*, 3(2), 22.
- Mark, S. (2020). High-Revenue Athletics Institutional Policies and Practices Aligned with Key Resources for STEM Career Development. *Journal of Higher Education Athletics & Innovation*, 1(8), 113-139.
- McGuigan, M. R. (2017). Monitoring Training and Performance in Athletes. *Human Kinetics*.
- Miller, M. T., & Kissinger, D. B. (Eds.). (2009). College student-athletes: Challenges, opportunities, and policy implications.
- Mwenda, P. W. (2022). Influence of Participation in Competitive Sports on Character Changes of Secondary School Students in Nairobi City County, Kenya (Doctoral dissertation, Kenyatta University).
- Rehman, K., & Ali, A. (2019). Sports infrastructure and athlete performance: A case study of public training centers in Punjab. *Pakistan Journal of Sports Sciences*, 6(1), 77–84.
- Schwarz, E. C., Westerbeek, H., Liu, D., Emery, P., & Turner, P. (2016). Managing sport facilities and major events. Routledge.
- Shahid, R., & Akram, M. (2021). Infrastructure and morale: Comparative analysis of public vs private sports training facilities in Pakistan. *International Journal of Sports Psychology*, 2(3), 15–26.
- Van der Mars, H. (2020). Physical education's critical role in public health. *Human Kinetics*.
- White, K. (2022). Collegiate Sport as Biopolitical Dispositif: Excavating Black Collegiate Athletes' Educational Experiences. The Florida State University.
- Yang, P., Xu, R., & Le, Y. (2024). Factors influencing sports performance: A multi-dimensional analysis of coaching quality, athlete well-being, training intensity, and nutrition with self-efficacy mediation and cultural values moderation. *Heliyon*, 10(17).
- Yousaf, H., & Tariq, F. (2020). Role of physiotherapy and sports medicine in athlete recovery: A study from Pakistan. *Journal of Rehabilitation and Sports Sciences*, 1(1), 25–33.