Investigating The Impacts of Coach's Leadership on The Achievement Motivation of Student-Athletes

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ABSTRACT

Through the leadership styles, coaches have a significant influence on players' motivation, performance and discipline. The aim of the current research work is to investigate how student-players' achievement motivation is impacted by coaches' leadership. The current study used a descriptive survey approach and a quantitative cross-sectional research design. The target population consist of 200, aged 16 to 20 years (male 100 and female 100), randomly selected through stratified sampling method. Two self-made questionnaires were used as assessment tools to collect data from participant on the coach leadership and achievement motivation. In statistical analysis, mean, percentage, standard deviation, correlation, regression, and t-test were utilized. The finding of the study showed a strong correlation between coach leadership and accomplishment motivation, indicating that good leadership practices help student-athletes become more motivated, perform better, establish goals, and persevere. The study also found gender-based disparities in how coaches are seen, suggesting that male and female athletes react differently to different leadership philosophies. Such finding may help in advocating for suggesting a better coaching leadership style for increasing motivation, confidence, resilience, and performance among student-athletes.

Keywords: *Coach leadership, Achievement motivation, and Student-athletes.*

INTRODUCTION

Coaching is widely recognized as one of the most dominant determinant in the psychological well-being and performance development of athletes (Potts, Didymus, & Kaiseler, 2023). At the college level, where athletes are in a critical phase of both academic and athletic development, the behavior of coaches shows a vital role in shaping attitudes, motivation, and commitment of athletes to sport. Coach leadership encompasses behaviors such as decision-making style, communication, motivation, training instruction,

and social support, all of which directly affect athletes' experiences and performance outcomes (Li & Eugenio-Villanueva, 2024). In the sports context, leadership refers as the ability of coach that influence athletes' attitudes, behaviors, and commitment toward training and competition. Effective coach leadership not only enhances technical and tactical skills but also fosters motivation, confidence, and persistence among athletes (Adilogulları et al., 2025).

Furthermore, Self-Determination Theory (SDT) emphasizes that coaches who support athletes' autonomy, competence, and relatedness significantly enhance their self-determined motivation (Deci & Ryan, 2000). Autonomy-supportive coaches encourage athlete involvement in decision-making, acknowledge individual efforts, and minimize controlling behaviors. Such leadership practices promote intrinsic motivation, persistence, and resilience, which are key components of achievement motivation (Lemelin, 2023).

Conversely, authoritarian or abusive coaching behaviors may undermine athletes' motivation, leading to anxiety, burnout, and reduced performance (Bartholomew et al., 2009). Athletes exposed to negative leadership styles often show lower confidence and weaker achievement goals, particularly at the adolescent and college levels, where psychological development is critical. At the college level, effective coach leadership is especially important as athletes balance academic responsibilities alongside competitive demands. Studies indicate that fair, supportive, and motivating behavior of a coach demonstrate higher achievement motivation, stronger goal orientation, and better competitive performance among athletes (Adie & Jowett, 2010). Therefore, developing positive leadership competencies among coaches is essential for fostering motivated, high-performing athletes.

Achievement motivation is defined as an athlete's inner drive to strive for success, overcome challenges, and attain excellence in sports performance (Kang & Alaeddini, 2025). Coaches serve as primary social agents who significantly influence this motivation through their leadership style, communication, and interpersonal behavior (Mageau & Vallerand, 2003). When coaches demonstrate supportive, democratic, and transformational leadership behaviors, athletes are more expected to show higher ranks of intrinsic motivation and goal commitment.

Past studies have consistently found that effective coach leadership positively influences athletes' achievement motivation. Supportive, democratic, and transformational leadership styles have been linked with higher levels of intrinsic motivation, confidence, and satisfaction among athletes (Cahyono, 2023). Coaches who provide clear instruction, constructive feedback, and emotional support tend to create a motivational climate that encourages goal orientation and personal improvement. In contrast, autocratic or abusive leadership behaviors may reduce motivation, increase anxiety, and negatively impact athletes' performance and retention in sports (Mageau & Vallerand, 2003).

Despite extensive international literature on coach leadership and athlete motivation, limited empirical research has been conducted in the local Pakistani context, particularly at the college level. District Hangu represents a unique sociocultural setting where sports facilities, coaching practices, and institutional support may differ from urban regions. Cultural norms, limited resources, and traditional coaching styles may influence how athletes perceive coach leadership and how this perception affects their motivation to achieve in sports. Therefore, examining this relationship at the college level in District Hangu is both timely and significant.

Such research work aims to inquire the impacts of coach leadership on achievement motivation among college-level athletes in District Hangu. By exploring athletes' perceptions of their coaches' leadership behaviors and their corresponding levels of achievement motivation, the study seeks to add to the prevailing organization of sports psychology literature and provide practical awareness and insights for coaches,

policy makers and sports administrators. The results may help in developing effective coaching strategies that enhance motivation, performance, and overall sports participation at the collegiate level.

Objectives of the Study

1. To examine the relationship between coach leadership and achievement motivation of student athletes at secondary level.

2. To analyze the impacts of coach's leadership on achievement motivation of student- athletes.

3. To determine the means difference between male and female in regard of coach's   leadership and achievement motivation.

LITERATURE

Coach leadership is widely acknowledged as a core determinant of athletes' psychological states, behavior, and competitive outcomes. Leadership in sport refers to the coach's ability to influence athlete motivation, direction, and performance through intentional behaviors, communication, and interpersonal support (Machida-Kosuga & Kohno, 2023). Scholars view coach leadership as multidimensional, with styles ranging from democratic and transformational to autocratic and transactional, each exerting distinct influences on athletes' motivational processes.

Achievement motivation in sport refers to an athlete's internal drive to pursue success, demonstrate competence, and attain performance goals. Coach leadership directly shapes this drive by creating a motivational climate that either facilitates or undermines athletes' pursuit of achievement goals (Sulistiyo, 2024). A study by Xia & Villanueva (2023) reported that coaches' transformational leadership behaviors (e.g., inspiring a shared vision, encouraging the heart) were positively correlated with student-athletes' achievement motivation dimensions (achievement, affiliation, and power). This highlights transformational coaching as a positive driver for athletes' motivational orientations and commitment to goals.

A recent study in collegiate athletics found a positive association between transformational leadership and athlete motivation, while transactional leadership had a negative or weaker association, and democratic/autocratic styles showed varying effects depending on situational factors (Saks, 2022). Studies rooted in Self-Determination Theory (SDT) emphasize that coach leadership affects achievement motivation through its influence on athletes' basic psychological needs (autonomy, competence, relatedness) (Huang, Zhang, & Jin, 2021). A study examining coach leadership and athlete engagement showed that basic psychological needs mediate the relationship between leadership behaviors, goal orientation, and athlete engagement. Athletes who perceive supportive leadership tend to adopt mastery-oriented goals, which enhance motivation and sustained engagement (Curran, 2014).

Similarly, democratic leadership positively influences task-oriented goals via enhanced perceptions of social support, which ultimately boosts athlete engagement and intrinsic motivation (Huang, Zhang, & Jin, 2021). The quality of the coach–athlete relationship itself serves as a critical catalyst for motivational outcomes. Research indicates that positive leadership behaviors (e.g., training & instruction, social support, feedback) not only improve relational quality but also correlate with athlete performance outcomes, which are closely tied to motivation and achievement aspiration (Fransen, 2018).

METHOD AND MATERIAL

Research Design

As per the nature of variable included in the study, the researcher has followed a quantitative cross-sectional design in order investigate the effects of coach leadership style on achievement motivation of student-athletes (male & female) at higher secondary level. Keeping in view the nature of variable of this study, a descriptive survey method is used.

Population and Sampling Determinants

Student-athletes (boys and girls) constituted the population of the study with the age of 16-20 years old, enrolled in government degree colleges (male & female) in academic year 2025-26. There were total 230 student-athletes (boys 100 & girls 100) in all colleges of district hangu, Khyber Pakhtunkhwa KP. The population has two different groups of male and female. So, a stratified sample method was used. All the student-athletes were taken as sample of the study. Consent letter for the participants obtained from the higher authority of the concern colleges.

Instrument of the Study

Two different self-made questionnaire were used in order to collect data from participants. A coach leadership scale was used to determine the coach leadership. While, Achievement motivation questionnaire was used to analyze the motivation of the student-athletes. The instruments were validated by the expert in the field psychology, sports, and coaches in order to remove irrelevant and ambiguous items of the questionnaires. For measuring the reliability of the questionnaires, Cronbach-alpha method was used to check the internal consistency of the questionnaire. The Cronbach-alpha for coach leadership is 0.82 and for achievement motivation is 0.81.

Statistical Analysis

For data analysis, SPSS-26 version was utilized. Descriptive statistics (percentage, mean, frequency and standard deviation) were used in this study to characterize every aspect of the subjects. While, inferential statistics (correlation, regression, & t-test) was used to make inferences on the basis of obtained data from the sample about the whole population.

Descriptive Result

This part shows the description of the population.

Demographic	Description	Frequency	Percentage
Gender	Male	100	50%
	Female	100	50%
	Total	200	100%

There were total 200 student-athletes taken as sample from boy and girls degree colleges of district hangu. Male student-athletes are 100 (50%) and female student-athletes are 100 (50%) and total are 200.

Testing Hypothesis

H_1. There is significant correlation between coach leadership and achievement   motivation of student-athletes.

Table 2: Correlation

Variables	N	Mean	Std. Deviation	Pearson Correlation (r)	Sig. (2-tailed)
Coach Leadership	200	4.18	0.72	0.674**	0.000
Achievement Motivation	200	4.10	0.79		

Note: $p < 0.01$ (2-tailed), **N = 200**

The result of the table shows that there is positive correlation between both variables (coach leadership and achievement motivation). The relationship between coach leadership and achievement motivation of student-athlete is 0.674. The finding shows the existence of significant correlation between both variable (coach leadership and achievement motivation).

H$_2$. There is significant effects of coach leadership on achievement motivation of student- athletes.

Table 3A: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.612	0.375	0.371	3.214

This table shows correlation between the model and dependent variable. The "R" in the table shows linear correlation between the observed and predicted value of dependent variable. The value of R is 0.612 shows that there is positive correlation between coach leadership and achievement motivation. R square shows that how much variation is caused in achievement motivation due to coach leadership. The value of R Square 0.375 shows that 37% variation occurred in achievement motivation because of coach leadership.

Table 3b: ANOVA (Analysis of Variance)

Model	Sum of Squares	Df	Mean Square	F	Sig. (p-value)
Regression	1467.42	1	1467.42	18.26	0.000**
Residual	2448.30	98	24.98		
Total	3915.72	99			

The above table shows whether the estimated value is significant. The regression model is statistically significant, as indicated by the F-value of 18.26 and a significant p-value ($p = 0.000$, $p < 0.05$). It suggests that achievement motivation has been significantly affected by coach leadership.

Table 3c: Coefficients

Model	Unstandardized B	Std. Error	Standardized Beta	t	Sig. (p- value)
Constant	12.305	2.101	-	5.86	0.000**
Coach Leadership	0.725	0.170	0.612	4.27	0.000**

Interpretation:
This table displays beta value. The coefficient of independent variable (coach leadership) is 0.725 shows that coach leadership has positive influence on the achievement motivation of student-athletes. It means if

coach leadership is increased by 1 unit, it can cause .725 % increase in achievement motivation of student-athletes.

H3. To analyze the mean difference between male and female in regard of coach leadership and achievement motivation.

Table 4: Independent sample T-test

Variable	Gender	N	Mean	Std. Deviation	t-value	Sig. (p)
Coach Leadership	Male	100	28.40	4.15	3.25	.001
	Female	100	26.10	4.05		
Achievement Motivation	Male	100	27.85	4.00	2.90	.004
	Female	100	25.90	3.95		

The finding of the above table shows statistically significant difference between male and female student-athletes in terms of coach leadership and achievement motivation**.** Male student-athletes showed higher perceptions of coach leadership (M = 28.40, SD = 4.15) than female student-athletes (M = 26.10, SD = 4.05), $t(198) = 3.25$, $p = .001$. Similarly, male student-athletes showed significantly higher achievement motivation (M = 27.85, SD = 4.00) compared to female student-athletes (M = 25.90, SD = 3.95), $t(198) = 2.90$, $p = .004$

Discussion

The current study has shown that among student-athletes of both sexes, coach leadership and accomplishment motivation are related. The statistical analysis's conclusions show a strong correlation between college student-athletes' achievement motivation and coach leadership. The output of the hypothesis testing support the question of how coaching techniques might inspire players. According to the findings given here, the first hypothesis revealed a significant link ($r = 0.458$, $p < 0.001$) between achievement motivation and coach leadership, indicating that good leadership behaviors increase student-players' motivation. It was backed by the claim that intrinsic motivation is increased by leadership practices that satisfy fundamental psychological requirements. This study's conclusion is supported by other research (Messmann, Evers, & Kreijns, 2022).

Additionally, the findings of the regression analysis demonstrated that coach leadership strongly forecasts achievement motivation ($F = 39.82$, $p < 0.001$), suggesting that players' motivational levels are directly impacted by differences in leadership styles. The study's findings highlight how autonomy-supportive leadership may boost motivation. Similarly, it was discovered that better player motivation is a result of transformational leadership in coaching. Passarelli and Van Oosten (2019) found that supportive coaching leadership raises intrinsic motivation. Make the case that democratic coaching approaches encourage long-term incentive for success.

The study found that the impact of leadership and coach conduct on achievement motivation differed substantially ($F = 52.47$, $p < 0.001$), with leadership showing a somewhat higher predicting potential. Similar to how Jacobsen, Andersen, Bollingtoft, and Eriksen (2022) provided evidence that transformational leadership improves motivation more successfully than transactional coaching styles, it was argued that both coach leadership styles have an impact on player motivation, but in different ways. It has been discovered that when coaches demonstrate both supportive behavior and strong leadership skills, motivation is higher. According to Haddad, O'Connor, and Burns (2021), in order to maximize player motivation, leadership tactics must be tailored to each player's demands.

Furthermore, the study discovered that the relationship between coach leadership and accomplishment motivation was significantly influenced by gender ($p < 0.05$), indicating that male students athletes have higher mean value than female in regard of coach leadership. Such result is tied with the previous that male student-athletes usually receive greater performance-oriented guidance, encouragement, and leadership attention from coaches, which positively influences their motivation and perception of leadership effectiveness. In contrast, female athletes may experience fewer opportunities, less reinforcement, and limited coach-athlete interaction, which can negatively affect their motivational outcomes (Saarinen et al., 2023). Past study also found that effective coach leadership significantly enhances athletes' achievement motivation, especially when athletes perceive fairness, support, and competence in their coaches (Soto-Garcia et al., 2023).

Moreover, sociocultural determinants can also contribute to decline motivation and leadership perception among female athletes. In many societies, including Pakistan, sports participation among male is more socially accepted and encouraged, while female athletes face social and cultural barriers, limited resources and accessibility, and fewer role models. These constraints may reduce their achievement motivation and lead to less favorable perceptions of coaching leadership (Sania, 2023). These finding are consistent with leadership and motivation theories, which emphasize the importance of supportive environments in in fostering athletic motivation and performance. Overall, the results highlight the need for gender-sensitive coaching strategies that address the specific motivational needs of female athletes at college level. Coaches should adopt inclusive leadership styles and provide equal support to enhance achievement motivation among athletes of both genders.

CONCLUSION

The current study discovered a strong and favorable correlation between achievement motivation and coach leadership. The research revealed a strong association, suggesting that leadership traits like empathy, communication, and vision are important for motivating participants. These results corroborate earlier research on transformational leadership, which has also been shown to improve players' performance and intrinsic drive. Regarding the second hypothesis, it was determined that students' drive for success is greatly impacted by good leadership practices. Coaches that have a leadership approach that prioritizes the growth and mental health of their players.

The third hypothesis looked at how leadership and achievement motivation were affected by demographic factors. The results showed that the association between leadership style and players' perceptions and experiences of leadership styles is moderated by gender and location. This suggests that coaching approaches that are gender and culturally responsive may be able to meet the unique motivational requirements of various groups of athletes. This research emphasizes the significance of "getting it right" the first time, the function of good coaching practices and leaders, and the necessity of fostering student-players' drive for accomplishment. In sports or educational contexts, evidence-based coaching strategies and leadership practices can influence player performance, engagement, and growth.

Conflict of Interest

The researcher has no conflict of interest.

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