

The Impact of Coaches' Leadership Styles on Athletic Performance and Self-Efficacy among University Student-Athletes

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ABSTRACT

The present study examined the impact of coaches' leadership styles on athletes' performance and self-efficacy among university athletes in Islamabad and Rawalpindi. Grounded in Self-Determination Theory and Self-Efficacy Theory, the study proposed that coaching behaviors influence athletic performance directly and indirectly through self-efficacy. A quantitative research design was used, and a stratified random sample of 105 male and female athletes aged 18–30 years was selected from public and private universities. Data were collected using the Leadership Scale for Sports, Athletic Performance Inventory, and a multidimensional Self-Efficacy Scale. Statistical analyses were conducted using SPSS 21, including reliability analysis, Pearson correlation, and regression analysis. Results indicated that coaching leadership style was positively and significantly correlated with athletic performance ($r = .56, p < .01$) and self-efficacy ($r = .60, p < .01$). Self-efficacy also showed a strong positive relationship with athletic performance ($r = .73, p < .01$). Regression analysis revealed that coaching style significantly predicted both athletic performance and self-efficacy, explaining 31.7% and 36.5% of the variance, respectively. The findings support the mediating role of self-efficacy in the relationship between coaching leadership and athletic performance. This study highlights the importance of effective coaching strategies in enhancing athletes' confidence and optimizing performance outcomes. Future research may explore longitudinal effects of leadership interventions to predict long-term improvements in athlete self-efficacy and sustained performance enhancement.

Introduction

Leadership style of a coach refers to the consistent pattern of behaviors a coach uses to guide, motivate, communicate with, and make decisions for athletes during training and competition, which influences athletes' motivation, confidence, and performance outcomes (Chelladurai, 2007). Athletes' performance is the extent to which athletes effectively execute physical skills, techniques, and strategies during training and competition to achieve desired sport outcomes, as reflected in measurable results and consistent performance levels (Weinberg & Gould, 2019). Self-efficacy determines an individual's belief in their capability to successfully organize and perform the actions required to achieve specific goals or tasks, which influences effort, persistence, and performance outcomes (Bandura, 1997).

Coach leadership style has a direct influence on athletes' self-efficacy and performance. Supportive, instructional, and motivational leadership behaviors enhance athletes' self-efficacy by building confidence, providing clear guidance, and offering positive feedback (Bandura, 1997; Chelladurai, 2007). Higher self-efficacy then leads athletes to invest greater effort, show persistence under pressure, and execute skills more effectively, which results in improved athletic performance (Bandura, 1997; Horn, 2008). Therefore, self-efficacy functions as a key psychological mechanism through which the coach's leadership style affects athletes' performance.

Literature Review

Previous research consistently demonstrates that coaches' leadership styles, coaching behaviors, and psychological factors such as self-efficacy play a crucial role in athletes' performance. Studies have shown that democratic, transformational, autonomy-supportive, and participative leadership styles are positively associated with athletes' performance, satisfaction, motivation, and team cohesion, as these styles enhance participation, communication, and coach-athlete relationships (Yemiru, 2022; Ahmad et al., 2025). Similarly, research focusing on coach-athlete relationships reported significant positive effects on athletes' performance, psychological well-being, and perceived competence, emphasizing the importance of supportive and effective interpersonal interactions (Wang et al., 2024; Fatima et al., 2025).

Moreover, a substantial body of evidence highlights self-efficacy as a strong predictor of athletic performance, often acting as a mediating mechanism between coaching behaviors, social support, stress, and motivation (Lochbaum et al., 2023; Malik et al., 2026).

Meta-analytic and longitudinal studies further confirm that higher levels of self-efficacy are associated with improved performance outcomes across different sports contexts, although some researchers suggest the need for further comparative exploration (Moritz et al., 2013; Wurtele, 2011). Additionally, psychological safety, mindfulness, resilience, cultural values, and social support have been found to indirectly enhance performance by strengthening athletes' confidence, motivation, and coping abilities (Malik and Malik, 2026).

However, contradictory findings were reported by Zeze et al. (2025), indicating that perceived leadership may not always align positively with performance, suggesting the influence of contextual and individual differences. Overall, the literature strongly supports an integrative model in which effective coaching leadership and psychological resources particularly self-efficacy collectively contribute to optimal athletic performance.

Theoretical Framework

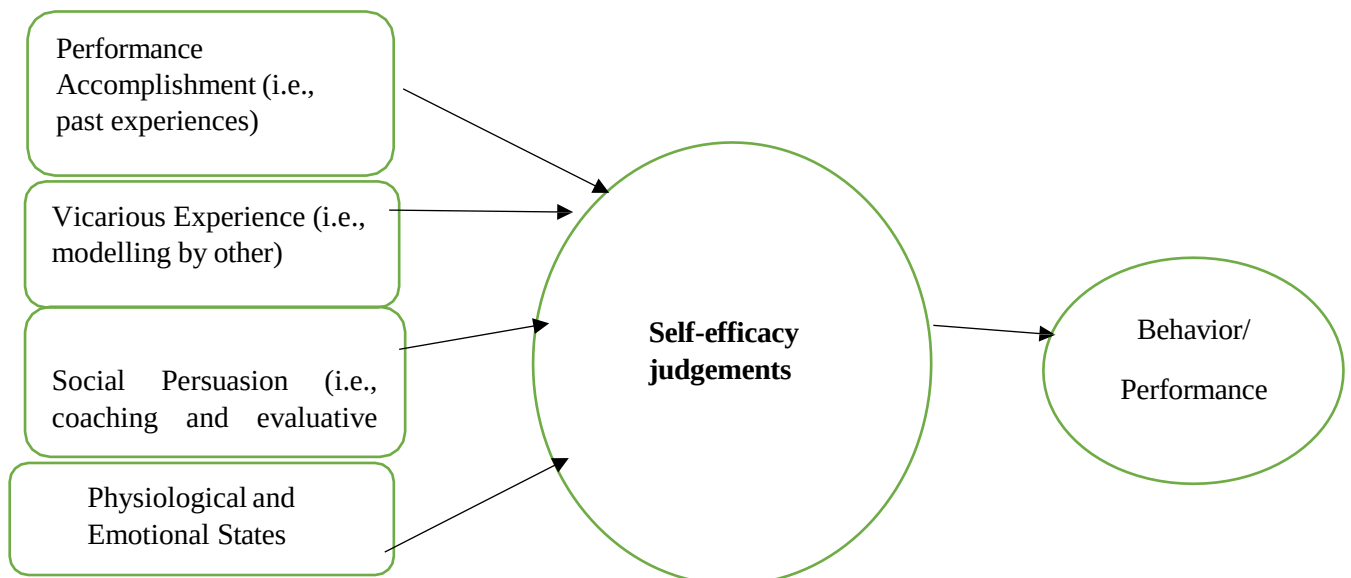
The present study is based on Self-Determination Theory, which highlights autonomy, competence, and relatedness as key psychological needs that drive motivation and well-being. In

sport, coaches influence these needs by encouraging choice, developing skills, and building supportive relationships, which enhances athletes' motivation and performance (Deci & Ryan, 2000). The framework also incorporates Competency Motivation Theory, which focuses on athletes' desire to improve and feel capable. Coaching practices that offer appropriate challenges, constructive feedback, and recognition of effort strengthen athletes' confidence, persistence, and resilience (Ames, 1992; Mirza et al., 2024).

The framework is further informed by Expectancy-Value Theory, which explains motivation based on individuals' beliefs about their abilities (expectancies) and the value they attach to an activity (Eccles & Wigfield, 2002; Weiner, 1979). Athletes who believe they can succeed and perceive sport participation as meaningful are more likely to remain motivated and committed. Coaches influence these beliefs through communication, encouragement, and by highlighting both personal and collective benefits of participation.

Self-efficacy is the belief in one's ability to manage situations and successfully perform actions that influence outcomes in life (Bandura, 1989). It is not based on actual skill level, but on confidence in using those skills effectively to achieve goals (Fatima et al., 2025). As a situation-specific form of self-confidence, self-efficacy affects task choice, effort, and persistence when facing challenges (Moritz et al., 2000). According to Bandura (1997), self-efficacy develops mainly through successful experiences, which strengthen confidence, motivation, and perseverance despite setbacks.

Self-Efficacy Theory (Bandura, 1997) suggests that efficacy beliefs strongly influence behavior, motivation, and performance. Individuals with high self-efficacy are more engaged, invest greater effort, and persist longer, which leads to better outcomes in sport and exercise settings (Bandura, 1986). Research supports this view, as Hazelwood and Burke (2011) found that self-efficacy was the strongest predictor of performance in ultra-endurance triathletes. Rooted in Social Cognitive Theory, self-efficacy operates within a reciprocal system where personal beliefs, behavior, and environmental factors continuously influence one another.



The self-efficacy model (Appendix A) shows how four main sources past success, observing others, encouragement from others, and emotional states shape a person's self-efficacy. Together, these factors influence how confident individuals feel about their abilities, which then affects their behavior and performance. Repeated success strengthens self-belief and improves performance, while repeated failure can lower confidence and self-esteem. Overall, the model explains how

beliefs about personal ability develop and guide behavior.

Hypothesis:

H1: There is impact of the coach's leadership style on athletes' performance. **H2:** There is impact of the coach's leadership style on athletes' self-efficacy. **H3:** Athletes' self-efficacy predicts their performance.

H4: Athletes' self-efficacy mediates the relationship between coach leadership style and athletes' performance.

H01: There is no impact of the coach's leadership style on athletes' performance.

H02: There is no impact of the coach's leadership style on athletes' self-efficacy.

Methodology

This chapter will give an overview of the participants and their involvement in the study. Along with their validity, reliability, and substance, the used instrument will also be mentioned. The paper was based on coaching Style, how coaching style impact on athletic performance and self-efficacy. The age range I used for my demographic for my investigation is between 18 to 30 years old. This research paper was done at different universities athletes. From the universities in Islamabad and Rawalpindi, a stratified random sample of 105 people was gathered. I took 105 males and female to finish my survey.

Instruments

The study was conducted by using three scales:

leadership scale for sports

The Leadership Scale for Sports (LSS-15) is a 15-item athlete-report measure designed to assess perceived coaching leadership behaviors within sporting contexts (Chelladurai & Saleh, 1980). Rather than measuring leadership from the coach's perspective, the LSS-15 captures athletes' experiences and perceptions of their coach's leadership style, providing valuable insight into the coach-athlete relationship and leadership effectiveness from the recipient's viewpoint.

The scale evaluates five distinct dimensions of coaching leadership behavior:

Training and Instruction, Democratic Behavior, Autocratic Behavior, Social Support and Positive Feedback

Athlete Subjective performance Scale

Athlete's Subjective Performance Satisfaction Scale (ASPS) by Ohad Nahum (2016) was used to measure the subjective sports performance satisfaction of the athletes. The 6-items Athlete's Subjective Performance Scale (ASPS) measures the most important aspects of performance, with two items referring to three aspects of performance: general performance, team contribution, and personal ability.

Athlete Self-Efficacy Scale

This was developed by Çalık Veli Koçak in the year 2020. The scale has 4 dimensions and 17 items. The dimensions are Sports Discipline Efficacy, Psychological Efficacy, Professional Thought Efficacy Personality Efficacy.

Sample

There had to be 105 participants from public and private universities. University Male and female athletes make up the sample. Students from the universities of Islamabad and Rawalpindi served as the population for the data collection, and the sampling methods employed in this study were random sampling methods.

Data Collection

This research was quantitative in nature. Three different questionnaires are used to collect the data, including one that measures coaching behavior and has five subscales. The study measures the coach's style with athletes in sport through the responses of rating 1 to 4. Second is self-efficacy with subscale, Sport Discipline Efficacy, psychological Efficacy, Professional

Thought Efficacy, and Personality Efficacy. The study was measuring the self-efficacy in athletes through the responses such as (I do not agree, I agree less, I agree moderately, I agree very much, I agree completely). Through this response of the athlete were computed and got the results. Third is athletic performance inventory. The study measured the performance of the players.

Statistical Analysis

The statistical package for social sciences (SPSS) was used to examine the data. The analysis was performed using SPSS 21. Different statistical methods were employed to examine the validity of the scale, test, ANOVA, and correlation coefficient in determining the link between the variables. The split half method was used for reliability estimation. Analysis was also used for the demographic variables.

Results

Table 1 Demographic characteristics of participant (N= 105)

Variables	Categories	N	%
Age	19–21	20	19
	22–24	42	40
	25–27	37	35
	28–30	6	5
Gender	Male	34	32
	Female	71	68
Type of Sport	Individual	37	35
	Team	68	65
Level	College	57	54
	University	47	46

Table 1 shows the demographic characteristics of the participants (N=105). The sample consisted of 34 males (32%) and 71 females (67%). The majority of the participants were between 22-24 years old (40%), followed by 25-27 (35%), 19-21 (19%) and 28-30 (5%). Regarding types of sport were more for teams (64%) followed by individual (35%). Most of the participants were university students. Training frequencies ranges in 3 days frequently and years of experience was more ranging from 2-3years.

Table 2: Descriptive Statistics, Reliability, Skewness, and Kurtosis of Study Variables (N = 105)

Variable	Items	α	M	SD	Skewness	Kurtosis
LSS	15	.83	55.26	7.99	-0.51	1.83
AP	6	.84	22.97	4.08	-0.22	-0.44
SE	16	.90	63.71	8.91	-0.41	0.30

Note. α = Cronbach's alpha; M = Mean; SD = Standard deviation. LSS = Leadership Scale for Sports; AP = Athletic Performance; SE = Self-Efficacy.

Table 2 presents the descriptive statistics, reliability, skewness, and kurtosis values of the study variables. All scales demonstrated good internal consistency, with Cronbach's alpha values ranging from .83 to .90. The mean scores indicated moderate to high levels of coaching style, athletic performance, and self-efficacy among participants. Furthermore, skewness and kurtosis values were within acceptable ranges, indicating normal distribution of the data.

Table 3 Pearson correlation among study variables (N=105)

Variable	1	2	3
LSS	—		
AP	.56**	—	
SE	.60**	.73**	—

Note. $P < .01$.

Table 3 shows the Pearson correlation among coaching style, athletic performance, and self-efficacy. Coaching style was positively and significantly correlated with athletic performance ($r = .56$, $p < .01$) and self-efficacy ($r = .60$, $p < .01$). Additionally, self-efficacy showed a strong positive relationship with athletic performance ($r = .73$, $p < .01$).

Table 4 Regression Analysis Predicting Athletic Performance from Coaching Style (N=105)

Variable	B	SE B	β	T	P
Constant	7.07	2.32	—	3.04	.003
Coaching Style	0.29	0.04	.56	6.92	< .001

$R = .563$, $R^2 = .317$, Adjusted $R^2 = .310$, $F(1, 103) = 47.81$, $p < .001$ **Note.** B = unstandardized coefficient; SE = standard error; β = standardized coefficient. Dependent variable = Athletic Performance.

Table 4 presents the results of linear regression analysis examining the effect of coaching style on athletic performance. The regression model was statistically significant, $F(1, 103) = 47.81$, $p < .001$, explaining 31.7% of the variance in athletic performance ($R^2 = .317$). Coaching style significantly predicted athletic performance ($\beta = .56$, $p < .001$), indicating that higher coaching leadership style was associated with improved athletic performance.

Table 5 Linear Regression Analysis Predicting Self-Efficacy from Coaching Style (N = 105)

Variable	B	SE B	β	t	P
Constant	26.51	4.89	—	5.42	< .001
Coaching Style	0.67	0.09	.60	7.69	< .001

$R = .604$, $R^2 = .365$, Adjusted $R^2 = .358$, $F(1, 103) = 59.12$, $p < .001$ **Note.** B = unstandardized coefficient; SE = standard error; β = standardized coefficient. Dependent variable = Self-Efficacy.

Table 5 presents the results of linear regression analysis examining the effect of coaching style on

self-efficacy. The regression model was statistically significant, $F(1, 103) = 59.12$, $p < .001$, explaining 36.5% of the variance in self-efficacy ($R^2 = .365$). Coaching style significantly predicted self-efficacy ($\beta = .60$, $p < .001$), indicating that higher coaching leadership style was associated with higher levels of athlete self-efficacy.

Discussion

The present study examined the impact of coaches' leadership styles on athletes' performance and self-efficacy. The findings revealed a statistically significant positive relationship between transformational and democratic leadership styles and both athlete performance and self-efficacy. These results indicate that athletes who perceive their coaches as supportive, motivating, and participative demonstrate higher confidence in their abilities and improved performance outcomes.

The findings are consistent with research conducted by Charbonneau et al. (2001), who reported that transformational leadership behaviors enhance intrinsic motivation and performance through individualized consideration and inspirational motivation. Similarly, found that autonomy-supportive coaching behaviors positively influence athletes' motivation and perceived competence. The present results extend this evidence by demonstrating that such leadership behaviors are also strongly associated with enhanced self-efficacy among athletes (Syeda Masooma Naqvi et al., 2025).

The results can further be interpreted within the framework of Albert Bandura's (1997) social cognitive theory, which emphasizes that self-efficacy beliefs significantly influence effort, persistence, and performance. Coaches who provide constructive feedback, encouragement, and emotional support may strengthen athletes' mastery experiences and verbal persuasion, which are key sources of self-efficacy. In line with this perspective, Deborah L. Feltz and Lirgg (2001) reported that athletes' confidence levels are strongly influenced by coaching behaviors that communicate trust and competence.

Moreover, the findings align with the multidimensional model of leadership proposed by Chelladurai and Saleh (1980), which suggests that effective leadership depends on the congruence between athletes' preferences and coaches' behaviors. When athletes perceive a match between their needs and coaching style, performance and satisfaction tend to improve. The current study supports this proposition, as democratic and transformational approaches were associated with better psychological and performance outcomes.

Although autocratic leadership may sometimes promote discipline and task clarity, the present findings indicate that it does not significantly enhance self-efficacy. This is consistent with previous research suggesting that overly controlling coaching behaviors may undermine athletes' sense of autonomy and competence (Amorose & Anderson-Butcher, 2007). Therefore, while directive strategies may be effective in specific contexts, long-term performance development appears more strongly supported by leadership styles that emphasize empowerment and support.

Overall, the findings highlight the critical role of coaching leadership style in shaping both psychological and performance-related outcomes in athletes. Coaches who adopt transformational and autonomy-supportive behaviors may foster stronger self-efficacy beliefs, which in turn enhance athletic performance. These findings have practical implications for coach education programs, emphasizing the importance of leadership training that promotes supportive, motivating, and athlete-centered approaches.

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