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Preferred coaching leadership styles in collegiate sports: Comparison of men and female team sports and individual sports

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Abstract

This comparative study examined preferred coaching leadership styles among 89 varsity student-athletes at Indiana University of Pennsylvania. Participants completed a 62-item survey distributed via email that assessed athletes' preferences for coaching leadership behaviors in individual and team sports. The purpose of the study was to investigate differences in preferred leadership styles based on sport type (individual vs. team), gender, and race/ethnicity, with the goal of identifying leadership approaches associated with greater athlete performance and satisfaction. The leadership dimensions examined included democratic behavior, autocratic behavior, positive feedback, training and instruction, and social support. Survey items measured athletes' preferences regarding specific coaching behaviors associated with each leadership style. Data were analyzed to examine differences in leadership style preferences across sport type, gender, and race/ethnicity. Results indicated that autocratic leadership behavior differed significantly between athletes participating in individual and team sports. Specifically, athletes in team sports demonstrated a stronger preference for autocratic leadership behaviors, with football players showing the highest preference for this style. Significant differences were also identified across gender and race/ethnicity for autocratic leadership and training-and-instruction behaviors. These findings suggest that preferred coaching leadership styles may vary according to sport context and athlete demographics, highlighting the importance of adapting coaching approaches to meet the needs of diverse athletic populations.

Keywords: Autocratic, Democratic, Leadership, Positive Feedback, Social Support, Training and Instruction

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1. Introduction

Leadership effectiveness has long been recognized as a critical factor influencing organizational success across a variety of professional settings, including athletics. Within sport, coaching leadership behaviors play a substantial role in shaping athlete development, performance, motivation, and overall satisfaction. Historical and contemporary research suggests that successful athletic outcomes are often closely associated with the effectiveness of coaching leadership (Lindauer, 2000). As noted by Wałach-Biństa (2019), "It is commonly believed that each success, but also each failure of an athlete can be attributed to the coach" (p. 38). Consequently, understanding athletes' preferences for specific coaching leadership behaviors remains an important area of inquiry within sport leadership and coaching research.

The multidimensional nature of coaching leadership has been widely explored in the literature, with several leadership behaviors consistently identified as influential in athletic environments. These behaviors include autocratic behavior, democratic behavior, positive feedback behavior, social support behavior, and training and instruction behavior. Autocratic behavior is characterized by coaches independently making decisions and emphasizing authority, control, and discipline within the team environment. Conversely, democratic behavior reflects a more athlete-centered approach in which coaches encourage athlete participation in decision-making processes related to goals, strategies, and team operations. Positive feedback behavior involves recognizing and reinforcing athletes' successful performances, whereas social support behavior emphasizes interpersonal relationships, emotional support, and concern for athletes' well-being. Training and instruction behavior focuses on the technical and tactical development of athletes through structured teaching, skill instruction, and performance enhancement strategies (Lindauer, 2000). Although coaches often demonstrate multiple leadership behaviors simultaneously, athletes' preferences for these behaviors may vary according to sport type and demographic characteristics.

The purpose of the present study was to examine preferred coaching leadership behaviors among NCAA Division II student-athletes at Indiana University of Pennsylvania. Specifically, the study investigated whether preferences for coaching leadership styles differed between athletes participating in team sports and individual sports, between male and female student-athletes, and among athletes from different racial backgrounds. The study was guided by three primary research questions: (a) Do preferred coaching leadership styles differ between team-sport and individual-sport athletes at a Division II institution? (b) Do preferred coaching leadership styles differ between male and female Division II student-athletes? and (c) Do preferred coaching leadership styles differ among student-athletes of varying racial backgrounds?

Based on prior theoretical and empirical research, several hypotheses were proposed. First, it was hypothesized that athletes participating in individual sports would demonstrate a stronger preference for autocratic coaching behaviors, whereas athletes participating in team sports would demon-

strate a stronger preference for democratic coaching behaviors. Second, it was anticipated that athletes from both individual and team sports would report positive preferences for coaching behaviors characterized by social support, training and instruction, and positive feedback. Third, female student-athletes were expected to demonstrate stronger preferences for social support and positive feedback behaviors than male student-athletes across both individual and team sport contexts.

Several assumptions underpinned the study. It was assumed that student-athletes at Indiana University of Pennsylvania would exhibit leadership style preferences comparable to those of student-athletes at similar NCAA Division II institutions. The study also assumed that participants possessed sufficient understanding of the leadership behaviors assessed in the survey instrument. Furthermore, the Modified Revised Leadership Scale for Sport was assumed to be a valid and reliable instrument for measuring preferred coaching leadership behaviors among collegiate athletes.

Despite the potential contributions of the study, several limitations should be acknowledged. First, the sample was restricted to student-athletes from a single NCAA Division II institution, thereby limiting the generalizability of the findings to other collegiate settings and competitive levels. Second, the study included only athletes participating in sports sponsored by Indiana University of Pennsylvania and therefore did not represent all collegiate sports. Third, the reliance on self-reported survey data introduced the possibility of response bias, including incomplete or inaccurate responses. Finally, the sample included a greater proportion of athletes from team sports than from individual sports, which may have influenced the distribution of leadership style preferences observed in the findings.

The significance of this study lies in its potential to enhance understanding of the relationship between coaching leadership behaviors and athlete outcomes. Prior research suggests that athlete satisfaction and performance are positively influenced when coaching behaviors align with athlete preferences (Lindauer, 2000). Because leadership preferences may differ according to sport context and athlete demographics, identifying these preferences may assist coaches in adopting more effective and adaptable leadership approaches. Increased awareness of preferred coaching behaviors may also contribute to improved athlete satisfaction, stronger team cohesion, enhanced communication, and greater overall athletic performance. Ultimately, the findings of this study may provide valuable insight for coaches, athletic administrators, and sport leadership scholars seeking to optimize the collegiate athletic experience through effective coaching leadership practices.

2. Theoretical Background

Coaching Leadership in Sport

Leadership is widely recognized as a critical component of athletic success, influencing team cohesion, athlete satisfaction, motivation, and performance outcomes. In sport settings, coaches serve as primary leaders whose behaviors and interactions shape both individual athlete development and overall team dynamics. Research has consistently demonstrated that coaching leadership behaviors affect athletes' psychological and emotional responses, as well as their perceptions

of team effectiveness and competitive success (Chelladurai, 1990; Kim & Cruz, 2016). Because athletes vary in their personal characteristics, competitive experiences, and sport environments, coaches often adopt multiple leadership behaviors to effectively meet the needs of their athletes. Recent scholarship further supports this perspective by emphasizing that coaching leadership influences athlete outcomes through psychological and relational mechanisms, including motivation, communication, and the coach–athlete relationship (Jin et al., 2022; Liu et al., 2025).

Within the sport leadership literature, five primary coaching leadership behaviors have been identified: autocratic behavior, democratic behavior, positive feedback behavior, social support behavior, and training and instruction behavior. These leadership dimensions, originally conceptualized through Chelladurai's multidimensional model of leadership, provide a framework for understanding how coaching behaviors influence athlete outcomes.

Autocratic behavior is characterized by coaches independently making decisions and emphasizing authority and control within the team environment. Coaches who demonstrate autocratic leadership often prioritize task completion and performance outcomes over interpersonal relationships with athletes. Research suggests that autocratic coaches tend to be less supportive and less collaborative in their interactions with athletes (Riemer, 2001). In contrast, democratic behavior involves athletes participating in decision-making processes related to team goals, methods, and strategies (Chelladurai, 1990). Democratic coaches encourage athlete involvement, communication, and shared responsibility, which may enhance athletes' feelings of competence, autonomy, satisfaction, and self-esteem (Chelladurai, 1993). Although these two leadership styles are conceptually opposite, coaches may incorporate elements of both depending on situational demands, athlete characteristics, and team needs. Recent research by Jin et al. (2022) demonstrated that democratic leadership behaviors positively predicted coach–athlete relationship quality and athlete satisfaction, suggesting that collaborative leadership approaches may strengthen athlete motivation and interpersonal trust.

Positive feedback behavior and social support behavior are closely related leadership dimensions that emphasize athlete well-being and interpersonal relationships. Positive feedback behavior involves recognizing and reinforcing athletes' successful performances, while social support behavior refers to creating a supportive and caring environment that demonstrates concern for athletes beyond athletic performance (Chelladurai, 1990). Coaches who consistently provide encouragement and emotional support may foster stronger relationships with athletes, resulting in increased trust, respect, and team cohesion. Research suggests that athletes who perceive high levels of social support and positive feedback from coaches often report greater satisfaction and stronger interpersonal connections within the team environment. Zhu et al. (2024), in a systematic review and meta-analysis, further concluded that supportive coaching leadership behaviors were strongly associated with athlete satisfaction and group cohesion across sport contexts.

Training and instruction behavior represents

another essential component of coaching leadership. This leadership behavior focuses on teaching sport-specific skills and techniques while emphasizing structured practice, discipline, and performance improvement (Chelladurai, 1990). Effective training and instruction behaviors are often associated with improved athlete development and competitive performance. However, research suggests that technical instruction alone may not ensure athlete satisfaction if coaches fail to provide adequate interpersonal support or motivational leadership. Athletes may value successful performance outcomes while simultaneously experiencing dissatisfaction with coaches who lack supportive or communicative leadership behaviors. Recent evidence from Li et al. (2025) supports this position, demonstrating that training-oriented leadership behaviors positively influence athlete engagement through the satisfaction of athletes' basic psychological needs.

In addition to these leadership dimensions, effective coaching communication plays an important role in leadership effectiveness. Coaches must deliver verbal cues and feedback in ways that are concise, accurate, and appropriate for athletes' skill levels and task demands. Landin (1994) emphasized that effective communication cues should be brief, specific, and tailored to the athlete's ability level and competitive context. Communication effectiveness therefore serves as an important mechanism through which leadership behaviors influence athlete learning, motivation, and performance. More recent work by Oh (2023) further demonstrated that communication and team cohesion significantly moderated the relationship between transformational leadership and athletic performance, reinforcing the importance of communication quality in coaching effectiveness.

Coaching Leadership and Athletic Performance

Coaching leadership behaviors have been strongly linked to athlete performance, satisfaction, and team cohesion. Coaches play a central role in establishing environments that maximize athletes' physical and psychological potential (Kim & Cruz, 2016). Effective coaching leadership requires not only technical knowledge of sport but also an understanding of athletes' motivational styles, interpersonal needs, and preferred leadership behaviors. Coaches who successfully align their leadership approaches with athlete preferences are more likely to foster positive team environments and enhance performance outcomes. Recent findings from Liu et al. (2025) suggest that coaching leadership behaviors influence athlete performance indirectly through the coach–athlete relationship and reductions in psychological fatigue, highlighting the complex pathways through which leadership behaviors affect athlete outcomes.

Athlete satisfaction and team cohesion are two of the most frequently examined outcomes associated with coaching leadership. Satisfaction refers to athletes' positive emotional evaluations of their sport experiences, while cohesion reflects the degree to which team members remain united in pursuit of shared goals and interpersonal relationships (Kim & Cruz, 2016). Research indicates that leadership behaviors emphasizing democratic decision-making, social support, positive feedback,

and training and instruction are generally associated with higher levels of athlete satisfaction and team cohesion. Conversely, excessive autocratic behavior may negatively influence interpersonal relationships and team bonding. Transformational leadership research further supports these findings. Mach et al. (2022) found that transformational leadership enhanced team performance indirectly through increased team cohesion, suggesting that leadership effectiveness is closely connected to athletes' shared commitment and collective identity.

Leadership preferences may also vary according to athlete age and competitive experience. Høigaard et al. (2008) found that athletes of different ages demonstrated varying preferences for coaching leadership behaviors, particularly during periods of competitive success or failure. Specifically, most leadership behaviors, with the exception of autocratic behavior, were rated more favorably in unsuccessful performance situations. These findings suggest that athletes' leadership preferences may shift depending on situational factors, developmental stages, and competitive contexts. Additional research has examined how coaches' motivational orientations influence athlete outcomes. Barić and Bucik (2009) found that athletes coached by leaders demonstrating lower ego orientation and stronger mastery-oriented motivational climates reported higher levels of satisfaction, cohesion, and performance. These findings further support the importance of adaptive coaching leadership behaviors that emphasize athlete development, communication, and psychological support.

Recent research has also emphasized the importance of fairness and adaptability in coaching leadership. De Backer et al. (2022) found that fair coach behavior positively predicted athlete leadership quality through team identification and task cohesion. Similarly, Zhao and Jowett (2022) highlighted the importance of adaptive leadership during the COVID-19 pandemic, demonstrating that athlete-centered communication and emotional support became particularly important during periods of uncertainty and disruption.

Preferred Coaching Leadership Styles Among Collegiate Athletes

Research has consistently demonstrated that athletes differ in their preferences for coaching leadership behaviors based on sport type, gender, psychological characteristics, and demographic factors. Although individual preferences vary, several leadership behaviors have been repeatedly associated with positive athlete experiences and increased satisfaction. In particular, training and instruction behavior and positive feedback behavior are often identified as the leadership dimensions most strongly associated with athlete satisfaction (Chelladurai, 1984).

Sport type appears to influence athletes' preferred leadership behaviors. Chelladurai (1984) examined leadership preferences among athletes participating in basketball, wrestling, and track and field and found notable differences across sports. Basketball athletes demonstrated stronger preferences for training and instruction behaviors, whereas wrestlers and track-and-field athletes preferred positive feedback behaviors. Additionally, team-sport and individual-sport athletes differed

in the aspects of satisfaction they valued most. Basketball athletes reported greater satisfaction with overall involvement, while wrestlers and track-and-field athletes reported higher satisfaction with leadership-related factors.

Psychological characteristics have also been linked to leadership preferences. Horn et al. (2011) investigated the relationship between coaching leadership preferences and variables such as sport anxiety, motivation, and feedback orientation. Athletes with higher levels of self-de-termined motivation and somatic trait anxiety demonstrated stronger preferences for democratic leadership behaviors, social support, positive feedback, and training behaviors. In contrast, ath-letes with higher motivation toward performance outcomes preferred more autocratic leadership and punishment-oriented feedback. These find-ings suggest that athlete personality traits and motivational orientations significantly influence preferred coaching leadership styles.

Gender differences in leadership preferences have also received substantial attention in the literature. Wałach-Biństa (2019) found that both male and female athletes reported training and instruction behavior as their most preferred leadership style, followed by positive feedback behavior. However, female athletes demonstrated stronger preferences for both training and instruction and positive feedback behaviors than male athletes. Interestingly, autocratic behavior was rated lowest among both genders, although female athletes reported even lower preferences for autocratic leadership than male athletes. These findings suggest that athletes generally prefer supportive and instructional coaching behaviors regardless of gender, although female athletes may place greater emphasis on interpersonal support and communication.

Race and ethnicity have also been examined as potential influences on leadership preferences. Burdette et al. (2012) investigated differences in leadership preferences based on gender, race, and playing time among collegiate athletes. Although mean differences emerged for social support behavior, with minority athletes reporting slightly higher preferences for social support than White athletes, no statistically significant differences were identified across leadership behaviors at the $p < .05$ level. Nonetheless, the observed differences suggest that race and ethnicity may still warrant further investigation in future coaching leadership research. Recent scholarship continues to support the importance of demographic and contextual factors in shaping athlete leadership preferences, particularly as collegiate athletic environments become increasingly diverse and culturally complex.

Measurement of Coaching Leadership Behaviors

Several instruments and theoretical models have been developed to measure coaching leadership behaviors and athlete perceptions of leadership. One of the earliest frameworks was the mediational model of leadership, which emphasized the cognitive and emotional mechanisms through which athletes interpret and respond to coaching behaviors (Vaughan, 2017). This model focused on the relationships among coaching behaviors, athlete perceptions, and evaluative reactions,

highlighting the importance of athlete interpretations in determining leadership effectiveness.

Smith and Smoll later developed the Coaching Behavior Assessment System (CBAS), an observational tool designed to systematically categorize coaching behaviors during practices and competitions. The CBAS includes behavioral categories such as reinforcement, punishment, technical instruction, encouragement, organization, and communication (Smith et al., 1977). These observational methods provided researchers with structured approaches for evaluating coaching behaviors and examining how athletes respond to various leadership strategies.

The most widely used instrument for assessing coaching leadership behaviors is Chelladurai and Saleh's (1980) Leadership Scale for Sport (LSS). The LSS measures athletes' perceptions and preferences across the five primary leadership dimensions: autocratic behavior, democratic behavior, positive feedback behavior, social support behavior, and training and instruction behavior. Building upon the LSS, Zhang et al. (1997) developed the Revised Leadership Scale for Sport (RLSS) to improve measurement precision and expand the number of survey items and leadership dimensions. The RLSS was developed using extensive input from collegiate athletes and coaches and sought to address limitations associated with the original LSS instrument. Although the RLSS improved certain psychometric properties of the original scale, researchers have noted that additional refinement may still be necessary to fully capture the complexity of coaching leadership behaviors. Recent bibliometric work by Cruz and Kim (2023) noted that leadership measurement in sport continues to evolve, with increasing attention being given to transformational leadership, athlete-centered coaching, and relational approaches to leadership assessment.

3. Methodology

Research Design

The present study employed a quantitative, descriptive comparative research design to examine preferred coaching leadership behaviors among NCAA Division II student-athletes. Specifically, the study investigated differences in preferred coaching leadership styles based on sport type (team vs. individual sports), gender, and race. A survey methodology was selected to collect standardized data regarding athletes' perceptions of preferred coaching behaviors across multiple leadership dimensions.

Participants

Participants consisted of student-athletes enrolled in varsity athletic programs at Indiana University of Pennsylvania (IUP). A total of 361 student-athletes were invited via email to participate in the study. Eligible participants included both male and female athletes representing team sports and individual sports. Team sports included baseball, basketball, football, field hockey, lacrosse, soccer, softball, and volleyball, whereas individual sports included cross country, golf, swimming and diving, track and field, and tennis.

The target sample size was 200 student-athletes, with an intended distribution of 100 athletes from team sports and 100 athletes from individual sports. The researcher also sought balanced gender representation within each sport category.

However, the final sample consisted of 89 student-athletes, representing approximately 24% of the total student-athlete population contacted. Of the participants, 36 identified as male and 45 identified as female, while 64 participants competed in team sports and 25 participated in individual sports. The response rate was slightly below the typical 25%–30% response rate commonly associated with email-based surveys (Fincham, 2008).

Recruitment Procedures

Prior to data collection, approval for the study was obtained from the Indiana University of Pennsylvania Institutional Review Board (IRB). Following IRB approval, permission to contact student-athletes was granted by the athletic director and team coaches. Recruitment emails describing the purpose of the study and inviting participation were distributed to all eligible student-athletes through the university email system.

The survey was administered electronically through Qualtrics and remained open from mid-March through the end of April. Student-athletes received an email containing a link to the online survey and informed consent form. Participants indicated consent by proceeding beyond the consent page and completing the survey. Participation was voluntary, and athletes could withdraw from the study at any time by discontinuing participation or contacting the researcher to request removal of their data. To improve participation rates, reminder emails were distributed approximately every two weeks throughout the data collection period. Additional assistance from athletic department staff and academic advisors was utilized to encourage participation during the latter stages of data collection.

Instrumentation

Preferred coaching leadership behaviors were measured using the Revised Leadership Scale for Sport (RLSS) developed by Zhang (1997) and previously utilized by Lindauer (2000). The RLSS is an adaptation of Chelladurai and Saleh's (1980) Leadership Scale for Sport and was designed to improve the measurement of athlete leadership preferences by expanding the number of items and leadership dimensions included in the instrument.

The RLSS consists of 62 items designed to assess athletes' preferences regarding coaching leadership behaviors. In addition to demographic questions, the survey measures six leadership dimensions: situational consideration behavior, positive feedback behavior, social support behavior, autocratic behavior, democratic behavior, and training and instruction behavior. Survey items are presented using a five-point Likert-type scale ranging from 1 (never) to 5 (always), with higher scores indicating stronger preferences for specific coaching behaviors. Participants completed the survey electronically at their convenience, and completion time was estimated at approximately 10–15 minutes.

Examples of survey items included questions regarding athletes' preferences for coaches rewarding strong performance, providing emotional support, involving athletes in decision-making, and emphasizing technical instruction and discipline. The instrument was selected because it provides a comprehensive assessment of multiple dimensions of coaching leadership behavior relevant to collegiate athletic environments.

Validity and Reliability of the Instrument

The original Leadership Scale for Sport (LSS) developed by Chelladurai (1980) has been widely used in sport leadership research. Zhang (1997) revised the original instrument by expanding the number of items and refining leadership dimensions while retaining the response structure and general framework of the original scale. Additional dimensions related to situational consideration and group maintenance behaviors were incorporated into the revised instrument to improve conceptual clarity and measurement precision.

The development of the RLSS involved extensive psychometric evaluation. Zhang employed expert review procedures to evaluate approximately 240 leadership items generated through interviews with collegiate coaches. The revised scale was subsequently tested using large samples of collegiate athletes assessing both preferred and perceived coaching leadership behaviors, in addition to evaluations involving collegiate coaches themselves (Vaughan, 2017). Although some limitations of the instrument remain, the RLSS is considered one of the most comprehensive and current instruments available for assessing coaching leadership behaviors in sport settings.

Data Collection Procedures

Data collection was conducted electronically using Qualtrics. Following informed consent, participants completed demographic items including sport participation, year of eligibility, gender, and age before responding to the RLSS items. Responses were collected anonymously, and no identifying information was requested during survey completion. Participation was entirely voluntary, and participants could discontinue the survey at any point without penalty.

Each RLSS item corresponded to one of the six leadership subscales. Participants rated the extent to which they preferred their coaches to demonstrate specific leadership behaviors using the five-point response scale. Completed survey responses were exported into IBM SPSS Statistics Version 28 for organization and analysis.

Statistical Analysis

Data analysis procedures focused on identifying preferred coaching leadership behaviors among collegiate student-athletes and examining differences across demographic and sport-related variables. RLSS items were grouped according to the six leadership subscales: situational consideration behavior (10 items), positive feedback behavior (12 items), social support behavior (9 items), autocratic behavior (8 items), democratic behavior (13 items), and training and instruction behavior (10 items). Scores for each subscale were calculated by summing participant responses across the associated items. Higher subscale scores reflected stronger preferences for the corresponding leadership behavior.

Descriptive statistics were computed to summarize participant demographics and leadership preference scores. Independent-samples t-tests were conducted to examine differences in leadership preferences between athletes participating in team sports and individual sports. A series of one-way analyses of variance (ANOVAs) were conducted to examine differences among specific sport teams and demographic groups. Additionally, 2 × 2 ANOVAs were used to evaluate gender

differences in preferred leadership behaviors. When significant omnibus effects were identified, Tukey's post hoc analyses were conducted to determine the location of group differences. Statistical significance was established at an alpha level of $p < .05$. All analyses were conducted using IBM SPSS Statistics Version 32.

4. Results and Discussion

To address the first research question, independent-samples t-tests were conducted to examine differences in preferred coaching leadership behaviors between athletes participating in team sports and those participating in individual sports. Analyses were performed on both the raw leadership subscale scores and standardized scores, with standardized values calculated by dividing subscale totals by the number of items within each leadership dimension. Results for the independent-samples t-tests are presented in Tables 1 and 2.

Comparison of Leadership Preferences Between Team and Individual Sports

The analyses revealed that autocratic leadership behavior was the only leadership dimension demonstrating a statistically significant difference between team- and individual-sport athletes. Team-sport athletes reported significantly higher preferences for autocratic leadership behaviors ($M = 28.50$, $SD = 6.39$) than individual-sport athletes ($M = 23.80$, $SD = 6.69$), $t(89) = -3.10$, $p = .003$, 95% CI [-7.76, -1.70].

No statistically significant differences were identified for democratic leadership behavior, positive feedback behavior, training and instruction behavior, or social support behavior. Although individual-sport athletes demonstrated slightly higher mean scores for positive feedback ($M = 44.70$, $SD = 6.70$) and training and instruction ($M = 81.00$, $SD = 8.78$) compared with team-sport athletes, these differences did not reach statistical significance. Similarly, team-sport athletes demonstrated marginally higher preferences for social support behavior than individual-sport athletes; however, these differences were also non-significant.

Standardized Leadership Preference Comparisons

To provide a more precise comparison across leadership dimensions, standardized scores were calculated for each subscale. The standardized analyses produced findings consistent with the raw-score analyses. Specifically, autocratic leadership behavior remained the only leadership dimension showing a statistically significant difference between team- and individual-sport athletes. Team-sport athletes reported significantly higher standardized autocratic leadership scores ($M = 3.57$, $SD = 0.80$) than individual-sport athletes ($M = 2.98$, $SD = 0.84$), $t(89) = -3.10$, $p = .003$, 95% CI [-0.97, -0.21].

No statistically significant differences were identified for standardized democratic leadership behavior, positive feedback behavior, training and instruction behavior, or social support behavior. Standardized scores indicated that athletes in both team and individual sports generally reported similar preferences across these leadership dimensions.

Table 1

Independent T-Test: Preferred Leadership Style for Team Sports and Individual Sports

						Significance	95% Confidence Interval of the Difference
	F	Sig	t	Two-tailed p	Mean Difference	Lower	Upper
Democratic	6.180	.015	-.183	.86	-.34	-4.04	3.36
Autocratic	.001	.972	-3.10	0.003	-4.73	-7.76	-1.7
Positive Feedback	.461`	.499	1.73	.087	2.66	-.39	5.71
Training and Instruction	.183	.670	1.81	.073	4.03	-.38	8.44
Social Support	1.047	.31	-.976	.33	-1.27	-3.85	1.32

Note. p<0.05, two-tailed

Table 2

Independent T-Test: Preferred Leadership Styles Standardized of Individual Sports and Team Sports

						Significance	95% Confidence Interval of the Difference
	F	Sig	t	Two-tailed p	Mean Difference	Lower	Upper
Democratic Stan	6.18	.015	-.183	.86	-.024	-.289	.240
Autocratic Stan	.001	.972	-3.10	0.003	-0.591	-.971	-.212
Positive Feedback Stan	.461`	.499	1.73	.087	.241	-0.036	.519
Training and Instruction Stan	.183	.670	1.81	.073	.117	-.020	.446
Social Support Stan	1.047	.31	-.976	.33	-.127	-.386	.132

Note. p<0.05, two-tailed

Gender Differences in Preferred Leadership Styles

Independent-samples t-tests examining gender differences indicated that autocratic leadership behavior was the only leadership dimension significantly associated with gender. Male athletes reported significantly higher preferences for autocratic leadership behavior (M = 28.78, SD = 7.47) than female athletes (M = 25.65, SD = 6.00), t(81) = 2.09, p = .04. This difference also remained significant when standardized subscale scores were analyzed (Table 3).

Table 3

Independent T-Test: Preferred Leadership Styles Between Female and Male Student Athletes

						Significance	95% Confidence Interval of the Difference
	F	Sig	t	Two-tailed p	Mean Difference	Lower	Upper
Democratic	.957	.331	.443	.659	.817	-2.855	4.488
Autocratic	5.514	.021	2.038	.040	.040	.146	6.102
Positive Feedback	.159	.692	-1.067	.289	-1.58	-4.537	1.371
Training and Instruction	1.028	.314	-1.259	.212	-2.716	-6.983	1.571
Social Support	6.005	.016	-.357	.722	-.450	-2.956	2.057
Democratic Stan	.957	.331	.443	.659	.058	-.208	.320
Autocratic Stan	5.514	.021	2.088	.040	.391	.018	.763
Positive Feedback Stan	.159	.692	.692	.289	-.114	-.410	.122
Training and Instruction Stan	1.028	.314	.314	.212	-.142	-.368	.087
Social Support Stan	6.005	.016	.016	.722	-.045	-.296	.206

Note. p<0.05, two-tailed

No statistically significant gender differences were identified for democratic leadership behavior, positive feedback behavior, training and instruction behavior, or social support behavior. Although female athletes demonstrated slightly higher mean scores for positive feedback, training and instruction, and social support behaviors, these differences were relatively small and did not reach statistical significance.

Racial Differences in Preferred Leadership Styles

One-way ANOVAs were conducted to examine differences in preferred coaching leadership behaviors across racial groups. Due to sample size considerations, analyses focused on athletes identifying as Black (n = 18), Hispanic (n = 7), and White (n = 55).

No statistically significant racial differences were identified for democratic leadership behavior, autocratic leadership behavior, positive feedback behavior, or social support behavior. Although several analyses approached significance, post hoc comparisons generally indicated that differences among racial groups were small and inconsistent.

Training and instruction behavior was the only leadership dimension that demonstrated statistically significant racial differences, $F(89) = 4.48$, $p = .01$, $\eta^2 = .10$. Post hoc Tukey analyses revealed that White athletes ($M = 80.17$, $SD = 9.31$) reported significantly higher preferences for training and instruction behaviors than Black athletes ($M = 73.35$, $SD = 9.16$). Hispanic athletes ($M = 75.63$, $SD = 8.12$) did not differ significantly from either group. Similar findings emerged when standardized training and instruction scores were analyzed, with White athletes demonstrating significantly higher preferences than Black athletes (Table 4).

Table 4

One-Way ANOVA: Preferred Coaching Leadership Styles Between Blacks, Whites, and Hispanics

	Mean Square	F	Sig
Democratic	74.098	1.202	.306
Autocratic	121.063	2.769	.088
Positive Feedback	117.115	2.966	.057
Training and Instruction	377.780	4.479	.014
Social Support	14.266	.459	.633
Democratic Stan	.378	1.202	.306
Autocratic Stan	1.892	2.769	.068
Positive Feedback Stan	.968	2.966	.057
Training and Instruction Stan	1.046	4.479	.014
Social Support Stan	.143	.459	.633

Note. $p<0.05$

Interaction Effects of Race and Gender

Two-way ANOVAs were conducted to examine interaction effects between race and gender across the five leadership dimensions. Results indicated no statistically significant interaction effects for democratic leadership behavior, positive feedback behavior, or social support behavior.

However, statistically significant interaction effects between race and gender were identified for autocratic leadership behavior, $F(80) = 2.40$, $p = .04$, and training and instruction behavior, $F(80) = 2.30$, $p = .05$. Athletes identifying as Black and Hispanic demonstrated higher mean scores for autocratic leadership behavior compared with White athletes, whereas White athletes demonstrated the highest mean scores for training and instruction behavior. These findings remained consistent when standardized subscale scores were examined (Table 5-9).

Table 5

Two-Way ANOVA: Between Race and Gender on Democratic Leadership Style

Source	Mean Square	F	Sig	Partial Eta squared
Corrected Model	58.916	.863	.510	.055
RaceR	67.477	.988	.377	.026
GenderR	1.553	.023	.881	.000
RaceR * GenderR	21.005	.308	.736	.008

Note. $p<0.05$

Table 6

Two-Way ANOVA: Between Race and Gender on Autocratic Leadership Style

Source	Mean Square	F	Sig	Partial Eta squared
Corrected Model	102.551	2.419	.044	.140
RaceR	154.343	3.640	.031	.090
GenderR	.733	.733	.395	.010
RaceR * GenderR	15.103	.356	.702	.010

Note. $p<0.05$

Table 7

Two-Way ANOVA: Between Race and Gender on Positive Feedback Leadership Style

Source	Mean Square	F	Sig	Partial Eta squared
Corrected Model	63.999	1.591	.173	.097
RaceR	109.648	2.726	.072	.069
GenderR	5.489	.136	.713	.002
RaceR * GenderR	1.001	.025	.975	.001

Note. $p<0.05$

Table 8

Two-Way ANOVA: Between Race and Gender on Training and Instructional Leadership Style

Source	Mean Square	F	Sig	Partial Eta squared
Corrected Model	198.816	2.315	.052	.135
RaceR	393.5	4.581	.013	.110
GenderR	.531	.006	.938	.000
RaceR * GenderR	42.815	.498	.609	.013

Note. $p<0.05$

Table 9

Two-Way ANOVA: Between Race and Gender on Social Support Leadership Style

Source	Mean Square	F	Sig	Partial Eta squared
Corrected Model	14.089	.430	.827	.028
RaceR	9.336	.285	.753	.008
GenderR	29.883	.910	.343	.012
RaceR * GenderR	23.457	.715	.492	.019

Note. $p<0.05$

Discussion

The purpose of this study was to examine differences in preferred coaching leadership behaviors among NCAA Division II student-athletes based on sport type, gender, and race. Overall, the findings suggest that preferences for coaching leadership behaviors vary across athlete demographic and sport-related characteristics, with autocratic leadership behavior emerging as the most consistently significant dimension across analyses.

The findings indicated that team-sport athletes demonstrated significantly stronger preferences for autocratic leadership behavior than individual-sport athletes. This finding contrasts with the initial hypothesis that individual-sport athletes would prefer more autocratic leadership due to the individualized nature of their training and competition environments. One possible explanation for this finding is the highly structured and coordinated nature of team sports, particularly football, where athletes may expect stronger authority, discipline, and centralized decision-making from coaches. Football athletes appeared to contribute substantially to the elevated autocratic leadership scores observed among team-sport participants. These findings are also consistent with prior research indicating that male athletes often report stronger preferences for autocratic coaching behaviors (Beam, 2004).

Gender differences in leadership preferences further supported this interpretation, as male athletes reported significantly greater preferences for

autocratic leadership behavior than female athletes. In contrast, female athletes demonstrated slightly higher preferences for positive feedback, social support, and training and instruction behaviors, although these differences did not reach statistical significance. These findings align with prior literature suggesting that female athletes may place greater value on interpersonal communication, instructional guidance, and supportive coaching environments. Racial differences in leadership preferences were less consistent across leadership dimensions. Although most leadership styles did not differ significantly by race, training and instruction behavior demonstrated significant racial differences, with White athletes reporting stronger preferences for this leadership behavior than Black athletes. These findings may reflect differ-ences in coaching expectations, athlete experi-ences, or cultural perceptions of coaching behav-iors; however, the relatively small number of mi-nority participants limits the extent to which broad conclusions can be drawn. Additional research involving larger and more diverse samples is needed to further examine the relationship between race and preferred coaching leadership behaviors. The interaction effects identified between race and gender for autocratic leadership and training and instruction behaviors further highlight the complexity of athlete leadership preferences. These findings suggest that leadership preferences may not be explained by a single demographic characteristic alone, but rather by the interaction of multiple athlete identities and sport experiences. Coaches working with diverse athletic populations may therefore benefit from adopting flexible leadership approaches that account for both individual and group-level preferences. Overall, the findings support the multidimensional model of leadership proposed by Chelladurai (1990), which suggests that athlete satisfaction and performance are enhanced when coaching behaviors align with athlete preferences. Although autocratic leadership behavior demonstrated the strongest statistical effects in the present study, the relatively high mean scores across multiple leadership dimensions indicate that athletes generally value a combination of instructional, supportive, and motivational coaching behaviors. These findings reinforce the importance of adaptive coaching leadership and suggest that effective coaches should remain responsive to the varying needs of athletes across sport contexts and demographic groups.

Practical Implications

The findings of this study have several practical implications for coaches, athletic administrators, and sport leadership educators. First, the significant differences observed in autocratic leadership preferences between team- and individual-sport athletes suggest that coaches should consider the structural demands and cultural norms associated with specific sports when developing leadership strategies. Coaches working within team-sport environments, particularly male-dominated sports such as football, may find that athletes respond positively to greater structure, authority, and directive leadership behaviors.

Second, the results emphasize the importance of recognizing diversity in athlete leadership preferences across gender and racial groups. Although not all differences reached statistical significance,

the findings suggest that athletes may respond differently to coaching behaviors depending on their backgrounds and experiences. Coaches who are capable of integrating multiple leadership styles—including instructional guidance, positive reinforcement, democratic involvement, and social support—may be better positioned to foster athlete satisfaction, team cohesion, and performance. Finally, the findings reinforce the importance of leadership adaptability in collegiate athletics. Effective coaching may require balancing team-level leadership approaches with individualized attention to athlete preferences and motivational needs. Coaches who demonstrate flexibility in their leadership behaviors and remain attentive to athlete feedback may be more successful in creating positive athletic environments that support both individual development and competitive success.

Limitations and Future Research

Based on the findings and limitations of the present study, several recommendations for future research are warranted. First, future studies should examine preferred coaching leadership behaviors across multiple NCAA divisions, including Division I and Division III institutions, to determine whether leadership preferences differ according to competitive level and athletic environment.

Second, future research should further investigate the relationship between preferred coaching leadership behaviors, athlete satisfaction, and athletic performance. Examining these relationships longitudinally may provide a clearer understanding of how coaching leadership influences athlete development and team outcomes over time.

Third, researchers should compare athletes' preferred coaching leadership behaviors with their perceptions of actual coaching behaviors both before and after competitive seasons. Such comparisons may provide valuable insight into the extent to which discrepancies between preferred and perceived leadership behaviors influence athlete satisfaction and team cohesion.

Fourth, future studies should include participants from multiple institutions and geographic regions to improve the generalizability of findings. Comparative analyses between public and private institutions may also provide insight into how institutional environments shape athlete leadership preferences.

Fifth, future investigations should consider larger and more diverse samples to allow for more comprehensive analyses of demographic variables such as race, age, year of eligibility, and sport-specific differences. Examining leadership preferences across individual sports rather than grouping sports into broad categories may also provide a more nuanced understanding of athlete leadership expectations.

Finally, additional research is needed to further examine the interaction between race, gender, and sport type in shaping preferred coaching leadership behaviors. As collegiate athletic populations become increasingly diverse, understanding how athletes from different backgrounds respond to various leadership approaches will remain an important area of inquiry within sport leadership research.

Conclusions

Several conclusions may be drawn from the findings of this study. First, athletes participatin

in team sports demonstrated significantly stronger preferences for autocratic leadership behaviors than athletes participating in individual sports. This finding suggests that athletes competing in highly structured team environments may value greater direction, authority, and centralized decision-making from coaches.

Second, male student-athletes demonstrated significantly higher preferences for autocratic leadership behaviors than female student-athletes. This finding is consistent with previous research suggesting that male athletes may be more accepting of directive and authoritative coaching styles.

Third, racial differences were identified across selected leadership dimensions. White athletes demonstrated significantly stronger preferences for training and instruction leadership behaviors than Black athletes. Although differences related to positive feedback and social support behaviors emerged in some analyses, these findings were not consistently supported across all post hoc comparisons and should therefore be interpreted cautiously.

Fourth, significant interaction effects between race and gender were identified for autocratic leadership behavior and training and instruction leadership behavior. These findings suggest that athlete leadership preferences are influenced not only by individual demographic characteristics, but also by the interaction of multiple social and athletic identities.

Overall, the results support Chelladurai's multidimensional model of leadership, which proposes that athlete satisfaction and performance are enhanced when coaching behaviors align with athlete preferences. The findings also suggest that effective coaches may benefit from adopting flexible and adaptive leadership approaches that account for differences in sport context, gender, and racial background.

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