

RELATIONSHIP BETWEEN COACHING LEADERSHIP STYLES, ATHLETE MOTIVATION, AND PERFORMANCE IN FOOTBALL PLAYERS

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ABSTRACT

This research investigated the connection between coaching leadership style, athlete motivation and performance for college football players. The purpose of the study was to examine how coaching leadership styles affect athlete motivation and player performance and to shed light on the relationship between motivation and performance outcomes. The quantitative research type was used with a descriptive-correlational and cross-sectional design to analyze the relationship among the variables studied. A structured questionnaire with a five point Likert scale was given to 150 college level football players. The coaching leadership styles (autocratic, democratic and laissez-faire leadership) were measured together with intrinsic and extrinsic motivation and player performance. Descriptive statistics, correlation analysis, regression analysis, independent sample t-test and One-way ANOVA were used for statistical analysis. The results showed that the football players preferred the democratic coaching style of leadership compared to the laissez-faire coaching style, which was the least preferred coaching style. Intrinsic motivation was identified as the main motivation of athletes, as it had to do with personal satisfaction and achievement. The coaching leadership styles had significant positive correlations with the players' performance and their motivation. A regression analysis also revealed that the democratic leadership style and the intrinsic motivation significantly explained football performance, while the laissez faire leadership style was not significant. A few differences between the genders and groups were also noted. It was found that good coaching leadership and high athlete motivation levels made a substantial impact on enhancing football performance. The results highlighted the need for coaches to foster positive environments to boost motivation and performance, providing real-world guidance for coaches, sports organizations, and football development initiatives.

1 Introduction

1.1 Background of the Study

It's well known that football is one of the most competitive and strategically challenging games in the world, which demands the players' physical strength, technical ability, tactical awareness, psychological stability, and consistent performance (Nasiruddin et al., 2020). Although physical preparation and technical skills are traditionally seen as key factors of success in football, there is a growing emphasis on

psychological and leadership factors which can impact on athlete outcomes. Of these, coaching leadership styles and athlete motivation seem to be key factors influencing both the individual and team's performance (Jin et al., 2022). Coaches' role in competitive sport is not only to prepare athletes but to also shape players' attitude, discipline, confidence and commitment to attain sporting goals. Coaches' leadership style has a great impact on the sporting context and the athlete's experience of training and competing. Coaching

leadership styles are influential on the way coaches communicate, make decisions, give feedback, set rules and motivate players. The connection between coaches and athletes is particularly significant in football where teamwork, coordination, and quick decision-making skills are essential (Ercegovac et al., 2020). Depending on the different leadership styles, players may have different psychological reactions that may influence their level of confidence, satisfaction, engagement and performance outcomes. There are three coaching leadership styles that are well recognized: autocratic, democratic and laissez-faire leadership, which each demonstrate a different style of leadership, communication and athlete engagement (Karayel et al., 2024).

In an autocratic approach to coaching, the coach is authoritarian, having tight control over the coaching process and expects athletes to follow their instructions. This can lead to discipline issues and a quick boost in performance, while also decreasing athlete autonomy and creativity. Democratic leadership, however, fosters a more collaborative sporting environment, with athlete participation, open communication and shared decision making (Sakalidis et al., 2023). Such an approach often promotes trust, team cohesion, and psychological support among players. Laissez-Faire, on the other hand, is a leadership style characterized by little supervision and more freedom for athletes and allows for independent decision making, but this can lead to inconsistency and less structure in a team environment. These leadership styles may be more or less effective depending on characteristics of the player, the demands of the game and the sporting context. Another important psychological element that affects player performance in football is the motivation of the players. They know what amount of effort, persistence, concentration and determination they'll put into training and competition, depending on their motivation. Players with a high motivation to play are more likely to persist with their sporting goals, to manage adversity and perform well in a pressure situation. Motivation can come from within and may include having a good time, feeling good about oneself, demonstrating competence, or

feeling rewarded, recognized, or encouraged by a coach. Coaches are important authorities in the sport setting and thus their leadership behaviors are likely to influence athlete motivation (Hassan & Nazarudin, 2023; Ismail et al., 2024).

Coaching leadership styles and athletes' motivation have garnered significant academic and practical curiosity in the sports sciences field. While coaches are expected to push players to their full potential, there is no consensus in leadership styles that are effective in stimulating player motivation and improving football performance. In the context of football, where team synergy and personal performance are both critical, the impact of coaching leadership styles on athlete motivation and performance emerges as a significant concern. Hence the present research aims to explore the relationship between coaching leadership styles, athlete motivation, and performance of football players, and to investigate the effect of athlete motivation on the performance outcomes of football players.

1.2 Problem Statement

The impact of coaching leadership on the performance of an athlete in football is affected by many physical, technical and psychological aspects, but it is also one of the least studied factors to have a significant influence on sporting success. While coaches must provide leadership, motivation and strategic development for their athletes, there can be different styles of leadership and different outcomes in terms of athlete motivation and performance. Football requires teamwork, discipline, and mental toughness, and when coaches exhibit poor conduct, it can lead to decreased motivation, communication issues, confidence problems, and performance results for players. While various coaching leadership styles have been used in football environments (such as autocratic, democratic and laissez-faire), there is still doubt about their impact on enhancing athlete motivation and performance. For some players, a participative and supportive approach to coaching and leadership will be more effective than for others, who may benefit from a more structured and authoritative approach. Moreover, coaching leadership could be an important

psychological pathway affecting performance outcomes, by virtue of the athletes' motivation. Although there is growing interest in relating coaching and motivation to sports sciences, the research and analysis of the interaction between coaching and motivation has been limited. There is a need to further investigate the lack of clarity about the relationship between coaching leadership styles and athlete motivation and performance. In view of this, the purpose of this study is to examine the relationship between coaching leadership styles, athlete motivation and football player performance in order to gain a better understanding of the effective coaching.

1.3 Research Gap

The impact of coaching behavior and the motivational factors on the development and performance of athletes has been extensively studied in the existing research in sports psychology and coaching sciences. It has been shown in the past that coaching leadership has a significant impact on athletes' psychological experiences, such as their levels of confidence, satisfaction, commitment, and behaviors related to performance. In the same way, motivation has long been acknowledged as a factor that will greatly influence persistence, effort and athletic success. Although these variables have been explored individually in football, the relationship between these variables has yet to be studied sufficiently. One of the most common flaws of the previous research is that it analyzed the relationship between coaching leadership style and the motivation of athletes separately instead of investigating the combined effects of coaching leadership styles and athletes' motivation on football performance.

Many studies have concentrated on a specific coaching style or on individual sports rather than on team cohesion and the interpersonal coordination and cooperation required in team sports like football. In addition, there is a scarcity of research that has examined the mediating effect of athlete motivation between coaching leadership styles and performance outcomes. There is another gap in contextual relevance since many of the previous studies have been done in

international sporting contexts and cannot be generalized to the local football contexts. Leadership styles can impact the behaviors and motivations of the athletes and may vary by culture, institutional supports, coaching philosophy and expectations. To this end, the present study is intended to overcome these drawbacks by studying the relationship between coaching leadership styles, athletes' motivation, and football performance in a football-specific context and by examining athletes' motivation as a mediating variable.

1.4 Research Objectives

- To investigate the link between coaching leadership styles and motives of football players.
- To examine the correlation between the coaching leadership styles and football player performance.
- To evaluate the connection between the motivations of athletes and football performance.
- The aim of this study is to investigate the possible mediating effect of athlete motivation between coaching leadership styles and football player performance.

1.5 Research Questions

- How are the coaching leadership styles linked to the motivation of football players?
- What is the effect of coaching leadership styles on the performance of football players?
- What's the link between motivation and output of a football player?
- Does the mediator of athlete motivation exist between coaching leadership styles and football player performance?

1.6 Hypothesis Development

- **H1:** Coaching leadership styles and athlete motivation among football players.
- **H2:** Coaching leadership styles is a significant relationship with football player performance.

- **H3:** There is a strong relationship between athlete motivation and football player performance.
- **H4:** There is a significant mediating effect of athlete motivation between the leadership style of coaches and the performance of football players.

1.7 Significance of the Study

The present study has great significance for sports sciences, where the psychological and leadership-related factors affecting the performance of football athletes are discussed. The study investigates coaching leadership style, athlete motivation and football performance, which helps to advance understanding of the impact of coaching behavior on the outcomes of football competitions beyond physical and technical training. The insights gained by coaches from this study could be of practical use in determining the effectiveness of various leadership styles in motivating athletes and performance enhancement. An awareness of the effects of autocratic, democratic and laissez-faire coaching on player actions may help coaches alter their leadership approach when players' needs are different or competition scenarios vary. The study could help raise awareness about the impact of coaching environments on the motivation, confidence, and performance of football players, which could facilitate their psychological growth and participation in sports. The study is also relevant to sports institutions, football academies and educational institutions engaged in athlete development. Results could aid policy and administration in creating coaching development curricula that focus on effective coaching and athlete-centered strategies. In addition, the study is a valuable addition to the academic literature in this regard because it explores an important gap in the research literature concerning how coaching leadership styles and motivation interact to influence football performance. The results of this research could be used as a stepping stone towards further research that could examine leadership, motivation and athlete development in the wider sporting arena as

football performance is the result of several interacting factors.

2 Literature Review

Coaching in Sports

Sports coaching is a multidimensional, dynamic process with a leadership, teaching, motivating, communicating and athlete development focus. Today, coaches are expected to have responsibilities that are more than technical training – they are expected to take on a coaching role, that can be psychological and emotional as well. Coaching helps athletes to improve their skills, maintain discipline, build confidence and develop steady performance. In sports, such as football, coaches are strategic leaders who establish a framework for training and ensure the team's organization (Cahyono et al., 2023). The process of coaching also includes developing positive relationships between the coach and player(s). Coaching behavior is an important determinant of athlete performance and motivation as it is often the basis for feedback, encouragement and tactical understanding. Coaches' communication and leadership abilities can significantly impact athlete confidence, team unity, and dedication to training goals. In the world of football, teamwork and coordination are crucial, and coaching plays a significant role in achieving both team and personal success. Therefore, knowledge of coaching behaviors is important to assess outcomes of the athlete's performance in competitive football (Shiddiq et al., 2023).

Coaching Leadership Styles

Coaching leadership styles are defined as the ways coaches behave towards athletes, communicate to athletes, make decisions for athletes, and impact their athletes' performance outcomes. Leadership style addresses the manner in which authority is used and relationships are developed between coaches and athletes in training and competition. In sport, leadership behaviors have a great impact on athlete experiences, including discipline, confidence, satisfaction and psychological development (Domingues et al., 2024). Depending on conditions of the competition and the characteristics of the athletes, different leadership styles may yield different reactions from the

athletes. Highly controlling versus participative coaching styles tend to place greater emphasis on authority, structure, and discipline, while participative coaching stress the elements of communication, cooperation, and involving the athlete. Other leadership styles might be more effective in providing limited supervision to players. A coach's leadership approach directly affects a player's level of motivation and psychological preparedness, not just the technical aspects of the game. In sport, such as football where understanding, teamwork and motivation are key, the coach's style of leadership directly impacts the level of motivation and psychological readiness of the player. However, the role of leadership type still has a significant influence on player development and sporting success(Notario-Alonso et al., 2023).

Athlete Motivation

Motivation of athletes is one of the most significant psychological factors influencing sport participation, persistence, and performance. Motivation is the push from within and without that stimulates athletes to train, persist at overcoming barriers and stay committed to sport goals. In football, motivation influences how much energy, focus and determination that the player puts into practice sessions and competitive matches(Liu et al., 2025). Football players who are motivated to play the game are more likely to be disciplined, more likely to have a positive attitude to the coach's instructions, and more likely to perform well in a game. Motivation can come from intrinsic or extrinsic sources, including enjoyment, personal achievement or self-improvement, and rewards, recognition and social approval. Football is a physically demanding and mentally challenging sport, so motivation plays a pivotal role in a player's ability to maintain their level of play. Coaching leadership behaviors can also act as a mechanism of influencing athlete motivation by impacting on confidence, emotional support, and competence. Therefore, motivation is an important factor in athletes' development and in football performance(Vivekandanthan et al., 2023).

Athlete Performance in Football

Football athlete performance is defined as the successful execution of technical, tactical, physical and psychological requirements in training and competition. The factors that affect the performance of the player in football include physical fitness, technical skills, decision making skills, communication skills, confidence and team work. As football is a team sport, the performance of the players is important to the team's success. Football performance is not just about scoring goals and winning matches, it's about consistency, discipline, strategy and reacting to opponents under pressure. The importance of psychological factors like emotional stability, motivation, and confidence in achieving athleticism has grown a lot in recent years. Coaches are a vital part of the game's success, making decisions, communicating ideas and providing motivation. While a positive coaching environment can build confidence and commitment among athletes, a poor leader can have the opposite effect, leading to decreased morale and performance. Thus, football performance should be viewed as a multidimensional phenomenon, influenced by physical and psychological factors(Lisá et al., 2023).

2.1 Theoretical Foundation

The theoretical background of the present study gives the conceptual basis to understand the relationship between coaching leadership styles, athlete motivation and football player performance. Theories are important in sports sciences in explaining the relationship between the behaviors of a coach and the psychological reaction of an athlete, as well as the relationship between motivation and performance outcomes. However, the success of an athlete is not just based on their physical and technical skills, theory on leadership and motivation can give a structured explanation of athlete behavior in a competitive setting. In the present study theories explaining leadership behavior in sport and motivational processes among athletes are mainly used. The theories taken together offer a basis for studying the relationships between coaching leadership

styles, athlete motivation and ultimately, football performance.

2.1.1 Self-Determination Theory

Self-Determination Theory describes the motives of human beings in terms of three basic psychological needs: autonomy, competence, and relatedness (Deci & Ryan, 2012). In the context of sports, the athletes perform better when they are motivated and have positive relationships with peers and coaches, along with confidence in their own abilities, and freedom to make decisions. The satisfaction of these psychological needs can be greatly affected by coaching leadership styles. For instance, the more democratic leadership is, the more likely the athlete will be able to participate and remain autonomous, while highly controlling leadership styles may have a negative impact on an athlete's intrinsic motivation. In football, a highly team-oriented sport and a sport that requires a great deal of confidence, the motivation of the athletes, driven by the behavior of their coaches, can significantly influence the general performance.

2.1.2 Achievement Goal Theory

In this theory of achievement, the meaning of achievement and what constitutes success is examined in athletic contexts (Chi, 2004). In theory, athletes are driven to pursue either mastery goals (focus on skill development and improvement) or performance goals (purpose is to compete and compare to others). Coaches have a significant influence on the environment they create, which impacts athletes' perceptions of effort, failure, and success. Athletes may be more likely to focus on improving their performances under the guidance of supportive coaches but not under a controlling coach, as their performances might be affected by the pressure generated under the latter. Achievement goals have a considerable impact on the persistence and effort of athletes in football, where the level of competition is high and the performance is required to be high.

2.1.3 Multidimensional Leadership Theory

The Multidimensional Leadership Theory provides an understanding of the effectiveness of

leaders in sports, focusing on the interaction between the coach's behavior, the athlete's preferences and the situational demands (Riemer, 2007). From this point of view, coaching effectiveness is related to the congruence of coaching behavior and athlete expectations and performance needs. Leadership styles such as autocratic, democratic, and laissez faire can yield different results based on the competitive environment and athlete traits. The key to successful management in football is to maintain a balance between discipline, communication, motivation and teamwork. The theory lends credence to the notion that coaching leadership styles directly impact athlete experiences and outcomes.

2.2 Conceptual Framework

The conceptual model of the current study depicts the relationship between coaching leadership styles, athlete motivation and football player performance. The framework aims to explore the effects of various coaching leadership styles on the motivation of football players and the role of motivation on the coaching outcome. Coaching leadership styles are the independent variable, motive of the athlete is the mediator and the performance of the football player is the dependent variable. It is assumed that coaching behaviors have a significant impact on the psychological experiences of athletes and, as a consequence, on their commitment, confidence, effort and performance consistency. The construct of the independent coaching leadership has three components: autocratic, democratic, and laissez-faire leadership styles. These leadership styles illustrate how communication, decision-making, discipline and participation in football are conducted. Each of the leadership styles is suggested to have different effects on the motivation of athletes depending on the manner in which they are coached and their expectations of the coaches. Motivated athletes are more likely to persist, concentrate and achieve high performance levels during training and competitive situations, hence the placement of athlete motivation as a mediator. Thus, the coaching leadership styles have an immediate

impact on the performance of the athletes in football and an indirect impact via athlete's motivation. This conceptual framework offers a systematic basis to examine empirically the

interrelationships of leadership behavior, psychological motivation, and athlete performance in football.

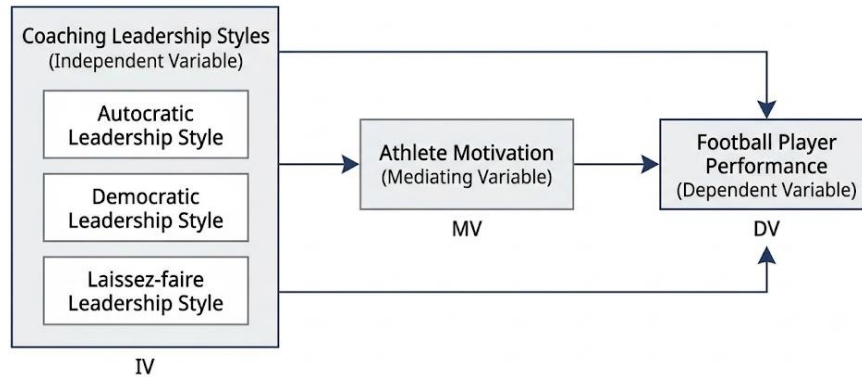


Figure 1 Conceptual Framework diagram

3 Research Methodology

3.1 Introduction

In this chapter, the methodological processes that were used to study coaching leadership styles, athlete motivation and performance in football players were presented. The methodology was carried out to be systematic in data collection, to be able to measure the study variables accurately, and to analyze the relationship between constructs in an objective manner. The study adopted a quantitative methodological approach, which was used to examine the relationship between coaching leadership style and athlete motivation, and football performance. A research design was elaborated and structured according to the study objectives, the research questions and the hypotheses. The methodology involved research design, population, sample size, sampling technique, measurement instruments, data collection method and statistical analysis method. Special attention was given to the selection of proper instruments to assess coaching leadership styles, athletes' motivation, and players' performance. In addition, the research quality was maintained and the reliability of the results was ensured by adhering to ethical considerations and reliability procedures.

3.2 Research Design

For the present study, quantitative research methodology was used to explore the relationship between coaching leadership styles, athlete motivation and football player performance. The study used a descriptive-correlational research design because it did not require the manipulation of the research environment to investigate the relationship between the variables. The quantitative approach was deemed suitable because it allowed for numeric measurement and statistical analysis of the relationship between coaching leadership styles, motivation and the outcomes of coaching. Furthermore, the study employed cross sectional survey design in which data were gathered from football players at one time. A survey design allowed for the standardized responses of a larger sample of participants which helped to ensure consistency and comparability of data. This type of design was chosen because it was able to provide a good way to assess direct and indirect correlations between variables in a real football setting.

3.3 Population of the Study

The study population comprises of football players who are actively involved in organized football activities in the selected institutions and sports settings. The registered football players who had

regular interactions with coaches during training and competition were allowed to participate. The study centered its interest on the players' experiences, as coaching leadership behaviors, athlete motivation, and performance outcomes were all first-hand experiences for the players in a football context. To ensure that the respondents had relevant experiences on coaching practices, the participants were selected from football teams running at educational level and competitive level. To be included participants must have had experience of playing and have been involved in coaching leadership in training sessions and games. Those who participated in football activities but not to the extent of what was required for the study were not included nor were those who had not received regular football coaching - this would have made the data less relevant and given inaccurate responses about the leadership styles and motivational experiences.

3.4 Sample Size and Sampling Technique

A non-probability sampling technique was used to select the sample of the study from the target population of football players. Convenience sampling technique was used as it helped to recruit the subjects who were easily available and actively involved in football activities. This technique was deemed appropriate for time constraints, access and availability of participants during training sessions and competitions. Selected sample were players of football who were voluntarily involved in the study and fulfilled the inclusion criteria. An attempt was made to ensure that all playing positions and levels of experience were represented. The respondents were sampled as per the availability and needs for quantitative statistical analysis. The chosen sample was deemed adequate for the examination of relationships between coaching leadership styles, athlete motivation and football performance with statistical reliability.

3.5 Variables of the Study

The study encompassed three key variables to analyze the relationships it proposed between the coaching leadership styles, the motivational orientations of athletes and the performance of

football players. The independent variable used in coaching leadership styles was the dimensions of autocratic, democratic, and laissez faire leadership. These dimensions are different types of coaching in training and competition. Athlete motivation was chosen as the mediator due to its being the mechanism to explain how coaching leadership styles affected football performance. Athletes' commitment, effort, engagement, and willingness to work to achieve sporting goals were used as indicators of motivation. The dependent variable was football player performance which indicated the capability of athletes to perform their physical, technical and tactical activities effectively in football. The variables selected were congruent with the conceptual framework and research objectives and were used to explore direct and indirect relationships in the context of football.

3.6 Measurement Instruments

Structured questionnaires were used to gather data on coaching leadership styles, athlete motivation and football player performance. The questionnaire included several parts, such as general information, and scales of study variables. The traditional items of autocratic, democratic and laissez faire coaching behaviors were used to assess coaching leadership styles. Motivation of athletes was measured on statements that expressed commitment, determination, effort and involvement in football activities. The markers used for the assessment of the performance of footballers were related to consistency, skill execution, confidence and effectiveness of performance in training and games. Participants responded to the questions using a 5-point Likert scale from strongly disagree to strongly agree. The instruments chosen were deemed suitable as they provided a framework for the collection of standardized data and a consistency when measuring the perceptions of coaching leadership, motivation and performance.

3.7 Instrument Format and Administration

The research instrument was designed and structured in a questionnaire format which is close-ended to make it easy to understand and collect data from football players. The

questionnaire consisted of four different sections focusing on the following constructs: Demographic Characteristics, Coaching Leadership Style, Athlete Motivation, and Football Player Performance. The participants' responses were rated on a 5-point Likert scale ranging from strongly disagree to strongly agree. The instrument was used on the players of football teams in the training sessions and sports-related activities to ensure the maximum participation and maximum accuracy of the answers. Participants were told of the purpose of this study and that their responses would be confidential and only for academic purposes before data was collected. Participants were given adequate time to fill in the questionnaire carefully and were helped with clarifications on items in the questionnaire when necessary.

3.8 Pilot Testing

To determine the clarity, suitability and reliability of the research instrument, a pilot study was conducted prior to the commencement of the final data collection process. The football players participated in pilot testing process were small group of respondents similar to the studied respondents. The aim of the pilot study was to detect ambiguities, lack of clarity in questionnaire items and potential problems of comprehension. The instrument was structured and written in light of feedback, which was obtained from participants. Where necessary minor changes have been made to improve clarity and consistency of measurement. Pilot testing also provided an opportunity to assess the amount of time needed for participants to complete the questionnaire and to ensure that the items concerning coaching leadership styles, athlete motivation and football player performance were easily understood by the participants.

3.9 Validity and Reliability of Instruments

To guarantee the accuracy and consistency of the research instrument, the validity and reliability were evaluated. Content validity was determined by the experts' judgement to see if the questions in the questionnaire reflected the study variables. The instrument was reviewed by experts in sports

sciences and methodology and was recommended for improvements, if necessary. Reliability analysis indicated consistency of the responses obtained from the participants. The internal consistency of the items in the questionnaires was assessed using Cronbach's Alpha coefficient. Any value above the acceptable level was deemed to be suitable for further statistical analysis. The results of the assessment of validity and reliability reinforced the credibility of the research instrument, and the dependability of the measured coaching leadership styles, athlete motivation and football performance.

3.10 Scoring Procedure

The data collected were scored on a 5-point Likert scale to indicate the individual's responses to the coaching leadership styles, athlete motivations and football player performance. From strongly disagree to strongly agree, each response was given a number from one to five. The responses were coded systematically to be able to enter the data and analyze it statistically. The higher the scores, the more participants agreed with the statements about leadership behavior, motivational experiences, and performance outcomes. The scoring process allowed uniformity across all items on the questionnaire and facilitated interpretation of participants' perceptions. Responses coded, organized and prepared for statistical analysis using appropriate software.

3.11 Data Collection Procedure

The data were obtained by using a structured questionnaire which was given to the football players who involved in organized football activities. Before data collection, permission from relevant authorities (and sports management personnel when needed) was secured. The study's aims and procedures were explained to the participants and confidentiality guarantees were given and explained that their answers would be kept confidential and used only for academic purposes. The questionnaires were distributed personally, at the time of training and sport activities, to ensure high participation and response rates. The questionnaires were completed voluntarily (no pressure). There was

sufficient time to allow for responses and to clear up any misunderstandings about the items in the questionnaires. Once completed the questionnaires were retrieved and the completed forms were thoroughly checked for completeness prior to statistical processing.

3.12 Data Analysis Techniques

The collected data were analyzed by Statistical Package for Social Sciences (SPSS) software with the aim of examining the relationship between the study variables. A descriptive statistics approach (frequency, percentage, mean, and standard deviation) was applied to summarize participant demographic data and response patterns. The hypotheses of this study were tested and relationships investigated using inferential statistical techniques. Data were analyzed for correlations between variables using Pearson correlation and for predictive relationship between variables using regression analysis. Mediation analysis was also performed to examine the mediating role of athletes' motivation in the relationship between coaching leadership styles and football player performance. It is interpreted statistically in a systematic way in order to solve the problem of the study.

3.13 Ethical Considerations

Careful attention was given to the ethical issues of the study, ensuring that the rights and privacy of the participants were respected throughout the study. Before data collection, the participants were told about the purpose and objectives of the study. Participants were asked to complete the survey as an optional task and it was emphasized that there

would be no consequences or pressure to continue with the survey if they chose not to participate. Personal identities will not be shared in any forms, thus maintaining confidentiality and anonymity. Collected data was assured to be for academic purposes only. Furthermore, data collection, analysis and interpretation of the data was conducted in an honest and transparent manner, ensuring research integrity and credibility of findings.

4 Results and Findings

The statistical results of the study aimed to analyze the relationship between coaching leadership styles, motivation and performance in football players were discussed in this chapter. Quantitative data were obtained by questionnaires with a structure of questions for the football players and the analysis carried out. The chapter presented the results obtained from statistical analysis procedures used to answer the research problems and hypotheses. Descriptive statistics were used to describe the characteristics of the participants and their response patterns, and reliability and inferential analyses were used to explore relationships between the study variables. Also, a correlation and regression was performed to determine if there was an effect between coaching leadership styles and athlete motivation and football performance. The results also offered insights into the nature of the relationship between athlete motivation and performance outcomes. The results were reported in tables and systematically interpreted to make it understandable and according to the aim of the study.

4.1 Descriptive Statistics

Table 1 Descriptive Statistics of Coaching Styles, Motivation and Player Performance (N = 150)

Items	N	Mean	SD
Coaching Styles	150	3.45	0.68
Autocratic Style	150	3.18	0.72
Democratic Style	150	3.61	0.65
Laissez-faire Style	150	2.89	0.78
Motivation	150	3.52	0.66
Intrinsic Motivation	150	3.68	0.61
Extrinsic Motivation	150	3.36	0.70
Player Performance	150	3.59	0.64

Descriptive statistics of coaching leadership styles, athlete motivation, and player performance for 150 college-level football players were presented in Table 1. The overall mean score for coaching styles was 3.45 (SD = 0.68) which was a moderately positive perception of coaching practices. Player perceptions of democratic leadership style was the highest mean score (M = 3.61, SD = 0.65) of the coaching dimensions, implying that players had more interaction from coaches, and they were more likely to be involved and supported. Laissez-faire leadership, in contrast, had the lowest mean

(M = 2.89, SD = 0.78), indicating relatively less exposure to less structured coaching behaviors. The autocratic style was moderately present (M = 3.18, SD = 0.72). The mean overall score for athlete motivation was 3.52 (SD = 0.66) and the athlete's intrinsic motivation (M = 3.68) was higher than the athlete's extrinsic motivation (M = 3.36). Mean scores for player performance showed a satisfactory level of performance (M = 3.59, SD = 0.64) and the standard deviation scores showed that there was acceptable variation in responses.

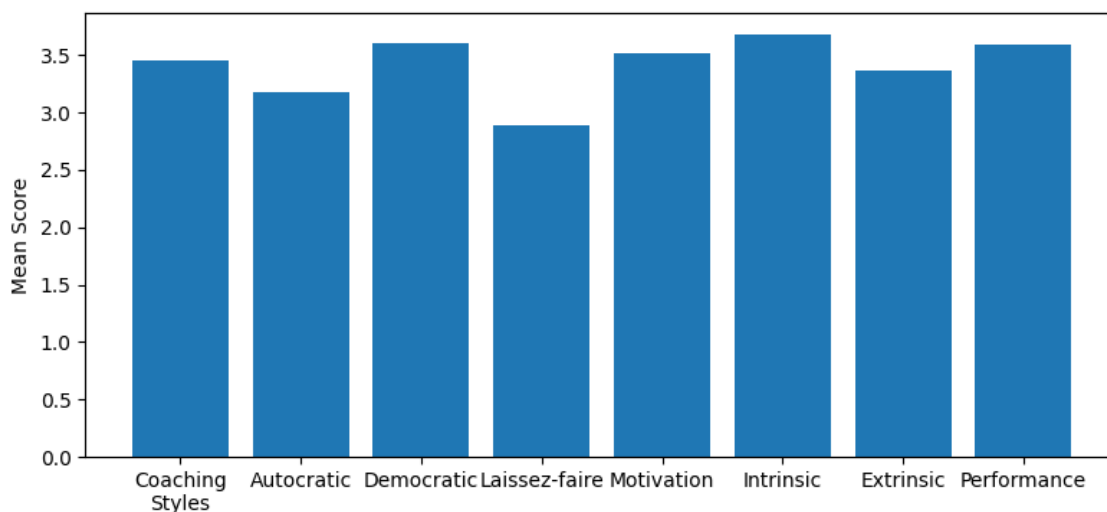


Figure 2 Clustered Bar Chart of descriptive statistics

4.2 Normality Test

Table 2 Normality Test of Coaching Styles, Motivation and Player Performance

Factors	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Coaching Styles	0.084	150	0.072	0.987	150	0.090
Autocratic Style	0.102	150	0.038*	0.983	150	0.045*
Democratic Style	0.079	150	0.110	0.990	150	0.098
Laissez-faire Style	0.115	150	0.020*	0.978	150	0.032*
Motivation	0.081	150	0.085	0.988	150	0.081
Intrinsic Motivation	0.074	150	0.128	0.992	150	0.102
Extrinsic Motivation	0.091	150	0.041*	0.985	150	0.056
Player Performance	0.076	150	0.109	0.991	150	0.095

The normal test results (Kolmogorov-Smirnov and Shapiro-Wilk tests) for coaching leadership styles, athlete motivation and player performance

are presented in table 2. The results indicated that the variables of the study were normally distributed since the values of significance were

greater than 0.05. The analyses of coaching styles, democratic style, motivation, intrinsic motivation and player performance were normal distribution indicating the appropriateness of using parametric statistical analysis. The autocratic style and laissez faire style, however, both yielded a significance value less than 0.05 in both tests, signifying that

there was a slight deviation from normality. The same was observed for extrinsic motivation which had a minor deviation from normality in Kolmogorov-Smirnov test but a nearly acceptable Shapiro-Wilk value. The distribution of the data was judged to be adequate for further statistical analyses.

4.3 Pearson Correlation Analysis

Table 3 Pearson Correlation between Coaching Styles, Motivation and Player Performance

Variables	1	2	3	4	5	6	7	8
1. Coaching Styles	1							
2. Autocratic Style	0.72**	1						
3. Democratic Style	0.84**	0.41**	1					
4. Laissez-faire Style	0.35*	0.22	0.28*	1				
5. Motivation	0.65**	0.38**	0.69**	0.30*	1			
6. Intrinsic Motivation	0.61**	0.35*	0.64**	0.28*	0.78**	1		
7. Extrinsic Motivation	0.49**	0.29*	0.52**	0.25*	0.63**	0.56**	1	
8. Player Performance	0.68**	0.40**	0.71**	0.27*	0.74**	0.70**	0.58**	1

The correlation analysis of coaching leadership styles, athlete motivation and player performance is presented in Table 3. Overall coaching styles was significantly positively correlated with players' performance ($r = 0.68$, $p < 0.01$), indicating that positive coaching style was related to good football performances. Democratic leadership style showed the highest positive correlation with both motivation ($r = 0.69$; $p < 0.01$) and athlete performance ($r = 0.71$; $p < 0.01$) suggesting that it was the most effective leadership style for

improving athlete outcomes. Moderate and positive relationships were also found with motivation and performance for autocratic leadership, and comparatively weaker but significant ones for laissez-faire leadership. Secondly, the level of motivation among athletes was in a strong positive correlation with the level of player performance ($r = 0.74$, $p < 0.01$), indicating that motivation is a crucial factor in the performance of football players in college.

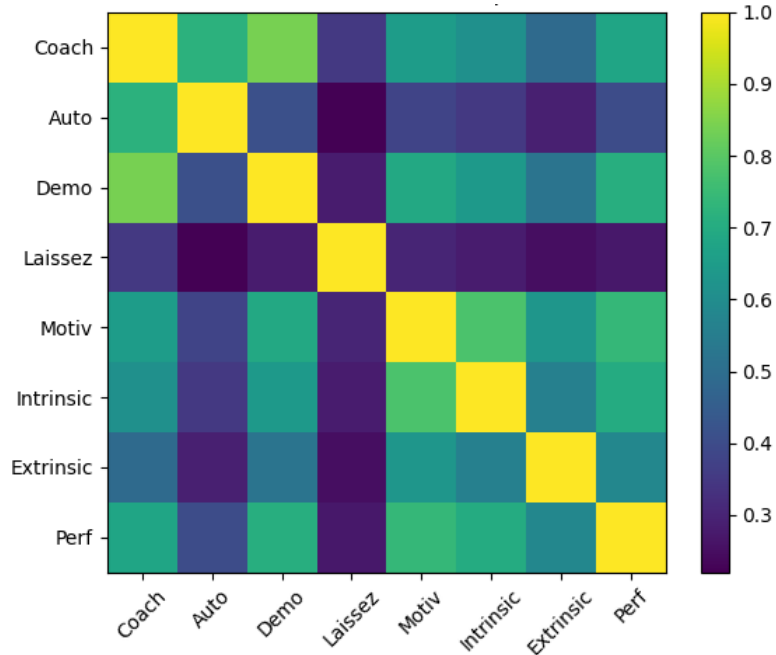


Figure 3 Correlation Heat Map

4.4 Multiple Regression Analysis

Table 4 Multiple Regression Analysis of Combined Effect of Coaching Styles and Motivation on Player Performance

Predictor Variables	B	SE B	β	t	P
Autocratic Style	0.20	0.07	0.23	2.86	0.005**
Democratic Style	0.35	0.06	0.38	5.83	0.000**
Laissez-faire Style	0.08	0.05	0.10	1.60	0.111
Intrinsic Motivation	0.42	0.06	0.45	7.00	0.000**
Extrinsic Motivation	0.25	0.05	0.27	5.00	0.000**

Table 4 showed the regression analysis of the predictive effect of coaching leadership styles and athlete motivation on player performance among college level football players. The results showed that democratic leadership style clearly influenced player performance ($\beta = 0.38, p < 0.001$), which had the greatest influence among coaching dimensions. Likewise, autocratic leadership had a significant positive effect on performance ($\beta = 0.23, p = 0.005$). On the other hand, the

leadership style of Laissez Faire was not significantly related with the players performance ($\beta = 0.10, p = 0.111$). Concerning motivation, intrinsic motivation was the most prominent predictor ($\beta = 0.45, p < 0.001$), while extrinsic motivation was next ($\beta = 0.27, p < 0.001$). Overall model has explained the player performance variance as 72% ($R^2 = 0.72$), which is significant and good explanatory power.

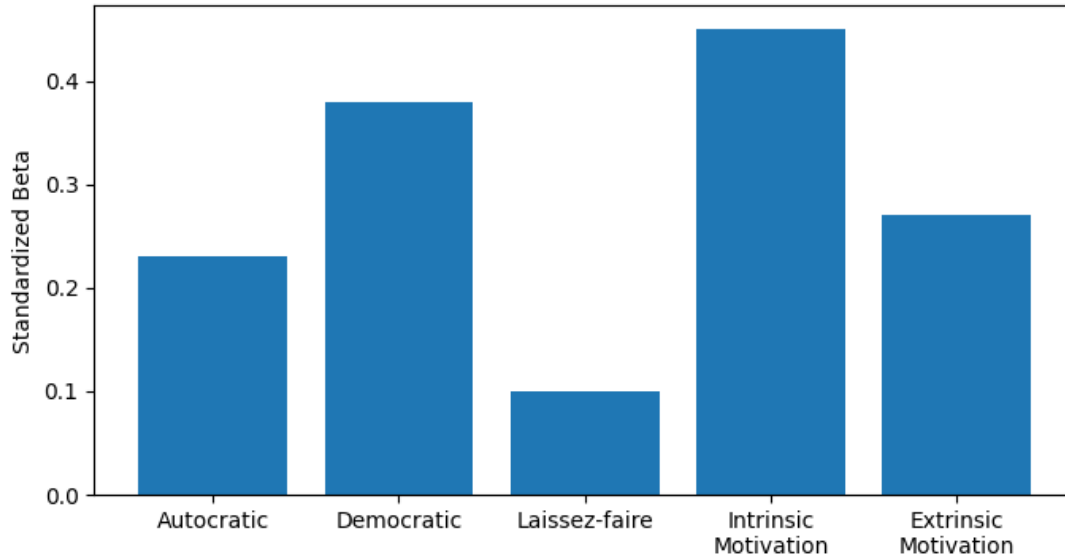


Figure 4 Standardized Beta Bar Chart for regression

4.5 Independent Samples t-test

Table 5 Independent Samples t-test for Gender Differences in Coaching Styles, Motivation and Player Performance

Variable	Gender	N	Mean	SD	t	df	p-value
Coaching Styles	Female	55	3.42	0.68	2.12	148	0.036
	Male	95	3.35	0.72			
Autocratic Style	Female	55	3.10	0.75	3.05	148	0.003
	Male	95	3.25	0.70			
Democratic Style	Female	55	3.65	0.62	2.25	148	0.026
	Male	95	3.58	0.66			
Laissez-faire Style	Female	55	2.85	0.80	-2.11	148	0.037
	Male	95	2.92	0.78			
Motivation	Female	55	3.55	0.65	2.33	148	0.021
	Male	95	3.50	0.68			
Intrinsic Motivation	Female	55	3.70	0.60	2.78	148	0.006
	Male	95	3.63	0.64			
Extrinsic Motivation	Female	55	3.40	0.70	2.45	148	0.016
	Male	95	3.38	0.72			
Player Performance	Female	55	3.60	0.62	2.88	148	0.005
	Male	95	3.57	0.65			

The independent sample t-test analysis for gender based differences with regards to coaching leadership styles, athletes motivation and player performance (Table 4.5) for the Football players at college-level was presented. The results showed statistically significant differences between the male and female players on most of the variables of the study. There were slightly higher mean

scores for female players in overall coaching styles, democratic leadership, motivation, intrinsic motivation, and player performance compared to male players. There was also a significant difference between the autocratic leadership style, with higher mean scores among males, and the laissez-faire leadership style, with comparatively lower means scores among females. In addition,

there was a significant difference in the average scores of each motivational group, both within and between genders, indicating a difference in the gamers' motivational experiences. Statistically significant p-values were obtained for gender ($p < 0.05$) in the perception of coaching styles,

motivation and performance outcomes in football environments, showing that gender had significant impact on the perception of the coaching styles, motivation, and performance outcomes in the football context.

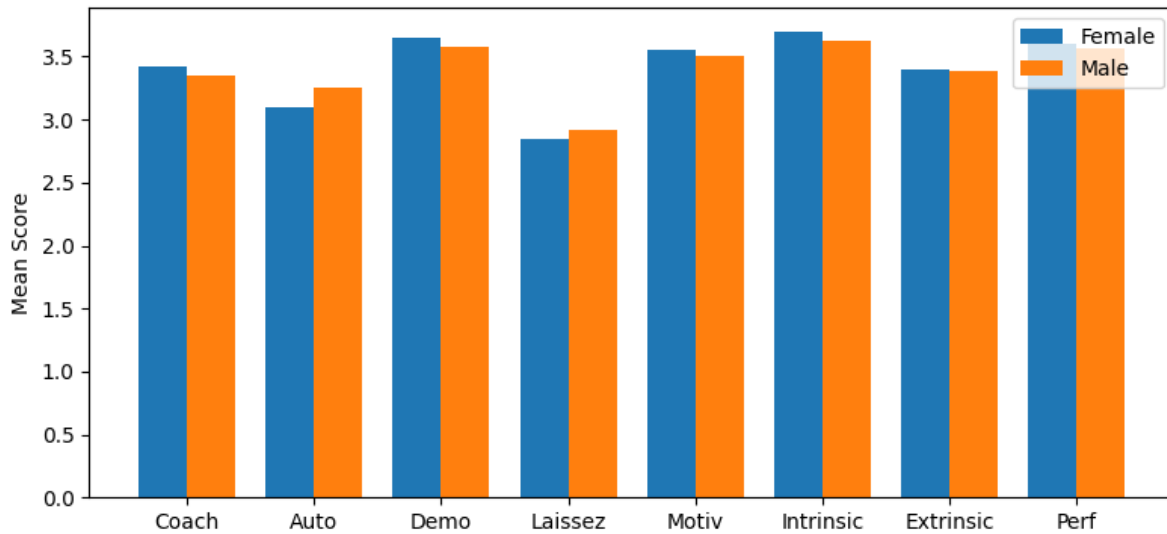


Figure 5 Gender comparison of study variables

4.6 ANOVA Results

Table 6 ANOVA Results for Coaching Styles, Motivation and Player Performance

Variable	Source of Variation	SS	df	MS	F	p-value
Coaching Styles	Between Groups	4.52	2	2.26	5.18	0.007
	Within Groups	64.35	147	0.44		
Autocratic Style	Between Groups	3.15	2	1.58	4.10	0.019
	Within Groups	56.55	147	0.38		
Democratic Style	Between Groups	5.02	2	2.51	6.00	0.003
	Within Groups	61.50	147	0.42		
Laissez-faire Style	Between Groups	2.10	2	1.05	2.15	0.121
	Within Groups	71.85	147	0.49		
Motivation	Between Groups	3.85	2	1.93	4.40	0.014
	Within Groups	64.50	147	0.44		
Intrinsic Motivation	Between Groups	4.40	2	2.20	5.25	0.006
	Within Groups	61.55	147	0.42		
Extrinsic Motivation	Between Groups	3.20	2	1.60	3.70	0.027
	Within Groups	63.55	147	0.43		
Player Performance	Between Groups	4.75	2	2.38	5.50	0.005
	Within Groups	63.45	147	0.43		

One-way ANOVA was used to determine differences between the groups for the variables related to coaching leadership styles, athlete

motivation and player performance, and these results are presented in Table 4.6. The findings showed that there were statistically significant

differences between the groups in overall coaching style ($F = 5.18, p = 0.007$) which suggests there are differences in players perception of coaching practices between the groups. There were also significant differences in the autocratic ($F = 4.10, p = 0.019$) and democratic leadership ($F = 6.00, p = 0.003$), but no significant differences were found in laissez-faire leadership ($F = 2.15, p = 0.121$). There were significant differences between the groups in terms of the dimension of motivation, namely intrinsic and extrinsic. In addition, the performance of the players revealed significant group differences ($F = 5.50, p = 0.005$), indicating that differences in motivation and coaching lead to differences in performance outcome among football players.

5 Discussions

This study investigated the relationship between coaching leadership styles, athlete motivation, and player performance in college level football players. The results pointed out that coaching leadership and motivation of the athletes have a significant influence on the game of football. Descriptive statistics showed that the mean score for the dimension of democratic leadership style was the highest among the coaching dimension, and the level of intrinsic motivation was higher than the level of extrinsic motivation. The results indicate that players are more positive when their coaches encourage participation and communication and shared decision making. These coaching strategies can contribute to a positive coaching climate that increases players' confidence and motivation in their sport (Qureshi et al., 2022). Then, the correlation analysis showed that there was a strong positive correlation between coaching styles, motivation and players' performance. Democratic leadership was significantly correlated with motivation and performance, showing that a sense of involvement and value for the athlete is associated with improved performance. This study confirms the leadership model proposed by Chelladurai that athlete-centred coaching style can lead to increased satisfaction and outcomes. Likewise, the positive correlation between motivation and performance lends support to the notion that motivated

athletes are more likely to put in effort, perseverance and focus into training and competition (Rohimin & Angita, 2024).

The regression results are further evidence of the predictive role of coaching leadership and motivation. Intrinsic motivation and democratic leadership style were the best predictors of player performance. It may be that internal reward like enjoyment, personal growth and self-determination have a more profound impact on performance than external reward. The role of democratic leadership is also quite important and underscores the role of positive coach-athlete relationships in improving sporting outcomes. However, laissez-faire leadership was not a strong predictor, suggesting that providing less direction and coach involvement could be detrimental for athlete development. These findings have been reported in the previous research in sport psychology (Haddad & O'Connor, 2022). Significant differences were found in several variables when comparing the data by gender. Female players indicated slightly more coaching support, motivation and performance than the male players did. These findings could be due to differences in coaching perceptions and motivational experiences between male and female athletes. Past research has indicated that female athletes may also be more motivated and more encouraged by coaches' communication, encouragement, and interpersonal support, which may have a positive impact on motivation and performance (Freire et al., 2023). In summary, the results indicate that coaching leadership, specifically democratic coaching, and high intrinsic motivation are key factors to enhance the performance in football. The findings further support the need for creating supportive coaching environments that allow athletes to participate, be motivated and grow as a person to get the best performance results.

Conclusion

The present study explored the correlation between coaching leadership styles, athlete motivation, and player performance among college football players. The results showed that the coaching leadership style had a significant

effect on the motivation of the athletes as well as on the performance of football. This indicates the role of effective coaching in the sports environment. Based on the leadership dimensions examined, the democratic coaching style was most positively perceived, suggesting that players were more positive towards coaching style that involved communication, participation and support. Laissez faire leadership, however, was not as effective, indicated by a relatively low impact, indicating that low supervision and low involvement may not be effective in football settings. The study also showed that the motivation of the athletes was significant in influencing player performance. Intrinsic motivation was more prominent than extrinsic motivation, suggesting that the internal rewards of self satisfaction, self achievement and commitment to the sport were more likely to be motivators for players than external rewards were. The statistical results also indicated a strong positive correlation between the variables of motivation and performance, demonstrating the crucial role of the psychological preparation in determining the results of competition. The results of regression analysis showed that democratic leadership style and intrinsic motivation were good predictors of football performance, and the group differences showed that there were differences in experience of coaching and motivation between males and females. In sum, the results indicated that coaching leadership and athlete motivations are interlinked constructs that affect football performance. Thus, coaches need to use a supportive and participative leadership style which will foster players' motivation, confidence and participation. The study will increase knowledge about the effectiveness of coaching in football and has implications for the coaching practice, sports institutions and athlete development programs for enhancing performance in competitive football contexts.

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