



Coaching Behavior Preferences among College Athletes in Lahore District

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Abstract

The effectiveness of sports coaching extends beyond technical instruction to encompass interpersonal, psychological, and leadership behaviors that influence athletes' motivation, satisfaction, and performance. Despite the growing international literature on coach-athlete relationships, empirical evidence regarding athletes' preferred coaching behaviors remains scarce in Pakistan, particularly at the college level. This study investigated the coaching behavior preferences of college athletes in Lahore District, Pakistan, with special emphasis on identifying the relative importance of different coaching behavior dimensions and examining gender-based differences. A quantitative cross-sectional research design was employed using the Coaching Behavior Scale for Sports (CBS-S). Data were collected from male and female college athletes enrolled in government and private colleges through a structured self-report questionnaire. Descriptive statistics were used to identify preferred coaching behaviors, while independent-samples t-tests examined differences between male and female athletes. The findings revealed that athletes generally favored coaching behaviors characterized by effective physical training, technical skill development, goal setting, mental preparation, competition strategies, and positive personal rapport, whereas negative personal rapport was the least preferred coaching behavior. Although male and female athletes shared several coaching preferences, statistically significant differences emerged across selected behavioral dimensions. The findings underscore the importance of adopting athlete-centered coaching approaches that balance technical competence with supportive interpersonal relationships. The study contributes to the limited body of literature on coaching behavior in Pakistan and provides evidence-based recommendations for coach education, higher education sports administration, and national sports policy. Future studies should extend this line of inquiry by incorporating athletes from different competitive levels, sports disciplines, and geographical regions to develop a comprehensive understanding of coaching effectiveness in Pakistan.

Keywords: Coaching behavior, college athletes, coach-athlete relationship, sports coaching, athlete preferences, Pakistan, gender differences

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1. Introduction

The quality of coaching has long been recognized as one of the most influential determinants of athletes' psychological development, motivation, satisfaction, and competitive performance. Although physical talent, training facilities, and organizational support contribute to sporting success, the interaction between coaches and athletes often determines whether athletes are able to realize their full potential. Coaching is therefore no longer perceived merely as the transmission of technical knowledge but as a multidimensional process that integrates leadership, communication, motivation, emotional support, and interpersonal relationship building. Contemporary sports psychology increasingly emphasizes that successful coaching requires understanding athletes' expectations and adapting coaching practices to meet their developmental and competitive needs.

International research has consistently demonstrated that athletes respond differently to various coaching behaviors depending on factors such as age, competitive level, gender, sporting discipline, and cultural background. Consequently, coaching effectiveness cannot be evaluated solely through coaches' instructional competence or competitive outcomes. Rather, effective coaching emerges from the degree to which coaching behaviors correspond with athletes' expectations and preferences. When athletes perceive coaching behaviors as supportive, fair, motivating, and technically competent, they demonstrate higher levels of confidence, satisfaction, intrinsic motivation, psychological well-being, and commitment to sport. Conversely, negative interpersonal behaviors, excessive authoritarianism, poor communication, or inadequate emotional support frequently contribute to dissatisfaction, anxiety, reduced motivation, and athlete withdrawal from sport.

Within sports leadership research, Chelladurai's Multidimensional Model of Leadership represents one of the earliest and most influential theoretical explanations of coaching effectiveness. The model proposes that athlete performance and satisfaction are maximized when three forms of coaching behavior—required behavior, actual behavior, and preferred behavior—are closely aligned. The model therefore highlights athletes' preferred coaching behavior as an essential component of coaching effectiveness rather than treating athletes as passive recipients of coaching decisions. Similarly, relationship-oriented approaches, particularly Jowett's 3+1Cs model, have shifted scholarly attention from coaching behaviors alone toward the quality of coach-athlete relationships characterized by closeness, commitment, complementarity, and co-orientation. Collectively, these perspectives emphasize that coaching effectiveness depends not only on technical expertise but also on coaches' ability to establish trusting, supportive, and mutually respectful relationships with athletes.

Over the past three decades, researchers have examined numerous dimensions of coaching behavior, including physical training and conditioning, technical instruction, mental preparation, competition strategies, goal setting, social support, communication, and personal rapport. Findings generally indicate that athletes appreciate coaches who combine technical competence with positive interpersonal relationships. Coaches who encourage athlete autonomy, provide constructive feedback, communicate clearly, and demonstrate genuine concern for athletes' well-being are more likely to foster long-term athletic development. In contrast, negative coaching behaviors—including excessive criticism, hostility, punitive interactions, and poor interpersonal relationships—are associated with decreased athlete satisfaction and reduced psychological resilience.

Although substantial research on coaching behavior has been conducted in North America, Europe, Australia, and East Asia, comparable evidence from South Asian countries remains limited. Pakistan, despite its rich sporting culture and expanding higher education

sector, has produced relatively little empirical research examining coach-athlete relationships or athletes' coaching preferences. Much of the existing literature concerning sports performance in Pakistan has focused on physical conditioning, training methodologies, sports participation, or organizational challenges, while comparatively little attention has been devoted to the psychological and interpersonal dimensions of coaching. This lack of empirical evidence restricts the development of evidence-based coaching education programs tailored to the sociocultural realities of Pakistani sport.

The need for such research becomes particularly important within college sports. Higher education institutions represent an important stage in athletes' competitive development, where coaches play multiple roles as instructors, mentors, motivators, and role models. College athletes encounter increasing academic responsibilities alongside competitive demands, making effective coaching relationships particularly valuable for maintaining motivation, confidence, and performance. Understanding the coaching behaviors preferred by college athletes therefore provides valuable information for improving coaching effectiveness and enhancing athlete experiences within university and college sports systems.

Gender constitutes another important consideration in coaching research. Previous international studies have suggested that male and female athletes may value different aspects of coaching behavior because of differences in communication styles, motivational needs, interpersonal expectations, and competitive experiences. Some studies report that female athletes place greater emphasis on supportive communication and personal rapport, whereas male athletes may prioritize technical instruction and performance-oriented coaching. However, findings remain inconsistent across different cultural settings, indicating the need for context-specific investigations. Given Pakistan's distinctive sociocultural environment and gender dynamics within sport, examining gender-based differences in coaching preferences offers important practical implications for coach education and athlete development.

The present study addresses these gaps by investigating coaching behavior preferences among college athletes in Lahore District. Specifically, it examines athletes' preferences across seven coaching behavior dimensions measured through the Coaching Behavior Scale for Sports (CBS-S), namely physical training and conditioning, technical skills, goal setting, mental preparation, competition strategies, personal rapport, and negative personal rapport. Furthermore, the study compares male and female athletes to determine whether coaching preferences differ according to gender. By focusing on athlete perceptions rather than coach self-evaluations, the study contributes an athlete-centered perspective that remains underrepresented within Pakistani sports research.

The significance of this study extends beyond academic inquiry. Its findings provide practical guidance for sports coaches, physical education departments, higher education institutions, coach education providers, and national sports organizations seeking to improve coaching quality through evidence-based practice. Identifying athletes' preferred coaching behaviors enables coaches to align their leadership styles with athlete expectations, thereby strengthening coach-athlete relationships, enhancing athlete satisfaction, and ultimately contributing to improved sporting performance.

Accordingly, the study was guided by the following research questions:

1. Which coaching behaviors are most preferred by college athletes in Lahore District?
2. How do athletes rank different dimensions of coaching behavior?
3. Do male and female college athletes differ significantly in their coaching behavior preferences?

By answering these questions, the present study contributes to the growing international literature on coaching behavior while providing one of the few empirical investigations into athlete-centered coaching preferences within the Pakistani higher education context.

2. Literature Review

2.1 Coaching Behavior in Contemporary Sports

Coaching behavior has evolved from a predominantly instructional role to a multidimensional construct encompassing leadership, communication, motivation, emotional intelligence, interpersonal relationships, and athlete development. Contemporary coaching research recognizes that effective coaches are not merely technical experts but facilitators of athletes' physical, psychological, and social growth. Consequently, coaching effectiveness is increasingly evaluated through athletes' perceptions rather than solely by competitive success. Behavioral approaches to coaching suggest that athletes continuously evaluate coaches based on the quality of their interactions during training and competition. Positive coaching behaviors—including constructive feedback, encouragement, technical guidance, and emotional support—enhance athletes' confidence, motivation, and satisfaction. Conversely, controlling, punitive, or hostile coaching behaviors often undermine athletes' psychological well-being and reduce both performance and long-term sport participation.

Research has further demonstrated that coaching behavior influences numerous athlete outcomes beyond competition performance. These include intrinsic motivation, self-efficacy, resilience, enjoyment, team cohesion, emotional regulation, and commitment to sport. Consequently, coaching behavior is increasingly viewed as one of the most influential environmental factors affecting athletes' holistic development.

Although coaching principles possess universal characteristics, athletes' expectations of coaches differ across sporting cultures. Cultural norms influence communication styles, authority relationships, motivational strategies, and interpersonal interactions. Therefore, empirical investigation within specific national contexts is essential before universal coaching recommendations can be made. Within Pakistan, evidence concerning athlete-centered coaching behavior remains limited despite the increasing professionalization of sports coaching.

2.2 Evolution of Coach–Athlete Relationship Research

Early investigations into coaching primarily emphasized coaches' observable leadership behaviors. Researchers sought to determine whether democratic, autocratic, instructional, or supportive coaching styles produced superior athletic performance. While these studies significantly advanced sports psychology, they largely conceptualized athletes as passive recipients of coaching behaviors.

Subsequent scholarship shifted toward relationship-oriented perspectives, recognizing that coaching effectiveness emerges from reciprocal interactions between coaches and athletes. Rather than examining coaching behavior in isolation, researchers increasingly investigated communication quality, interpersonal trust, mutual respect, emotional attachment, and shared commitment.

This relational perspective fundamentally transformed coaching research by recognizing that successful coaching depends on continuous interaction between both members of the dyad. Athletes influence coaching practices just as coaches influence athlete development, making the coach–athlete relationship a dynamic and reciprocal process rather than a one-directional transmission of instruction.

The present study adopts this athlete-centered perspective by focusing specifically on athletes' preferred coaching behaviors rather than coaches' self-perceptions. Such an approach aligns

with contemporary coaching science, which increasingly emphasizes athlete voice in evaluating coaching effectiveness.

2.3 Multidimensional Model of Leadership

Among leadership theories in sport, Chelladurai's Multidimensional Model of Leadership (MDML) remains one of the most influential frameworks for understanding coaching effectiveness. The model proposes that successful coaching depends upon the congruence among three forms of coaching behavior:

- Required behavior
- Actual behavior
- Preferred behavior

Required behavior is determined by situational characteristics such as organizational policies, sport type, competitive level, and institutional expectations. Actual behavior represents the coaching style displayed by the coach during training and competition. Preferred behavior refers to the behaviors athletes desire from their coaches.

According to the model, athlete satisfaction and performance increase when these three behavioral dimensions closely correspond. Conversely, discrepancies between actual coaching behavior and athlete preferences reduce satisfaction, communication quality, and performance outcomes.

The model therefore positions athletes' preferred coaching behavior as a central determinant of coaching effectiveness. This conceptualization provides the principal theoretical foundation for the present study because it explicitly recognizes athletes as evaluators of coaching quality. The thesis itself identifies Chelladurai's model as a key framework underpinning the investigation of coaching behavior preferences.

2.4 The Coaching Behavior Scale for Sports (CBS-S)

To investigate coaching behavior comprehensively, Côté and colleagues developed the Coaching Behavior Scale for Sports (CBS-S), one of the most widely used athlete-report instruments in sports psychology. The instrument measures athletes' perceptions across several coaching behavior dimensions that collectively capture both instructional and interpersonal aspects of coaching.

The present study utilizes seven dimensions of the CBS-S:

- Physical Training and Conditioning
- Technical Skills
- Goal Setting
- Mental Preparation
- Competition Strategies
- Personal Rapport
- Negative Personal Rapport

Collectively, these dimensions recognize that coaching extends beyond physical instruction to include psychological preparation, interpersonal communication, strategic planning, and emotional support.

Physical Training and Conditioning

Physical preparation remains the foundation of athletic performance. Athletes expect coaches to design scientifically structured training sessions that progressively improve fitness, strength, endurance, flexibility, and sport-specific conditioning. Coaches who provide individualized training programs while monitoring athlete development generally receive more favorable evaluations from athletes.

Technical Skills

Technical instruction represents one of the most visible coaching responsibilities. Athletes expect coaches to demonstrate expertise in correcting movement patterns, refining sport-specific techniques, providing individualized feedback, and facilitating continuous skill acquisition. Effective technical coaching enables athletes to improve performance while reducing injury risk.

Goal Setting

Goal setting enables athletes to establish meaningful performance objectives while maintaining long-term motivation. Coaches facilitate this process by assisting athletes in developing realistic, measurable, and progressively challenging goals. Well-designed goal-setting strategies improve concentration, self-confidence, persistence, and competitive preparation.

Mental Preparation

Modern sports increasingly recognize psychological readiness as equally important as physical preparation. Mental training includes confidence building, stress management, emotional regulation, attentional control, imagery, and resilience development. Coaches who actively prepare athletes psychologically contribute to improved competitive performance and enhanced emotional well-being.

Competition Strategies

Competition strategy encompasses tactical planning before, during, and after competition. Athletes expect coaches to provide effective game plans, adjust tactics according to competitive situations, analyze opponents, and communicate strategic decisions clearly throughout competitions.

Personal Rapport

Positive interpersonal relationships constitute one of the strongest predictors of coaching effectiveness. Personal rapport reflects coaches' respect, empathy, honesty, communication quality, encouragement, fairness, and genuine concern for athletes' welfare. Athletes who experience supportive coach-athlete relationships generally report greater satisfaction, motivation, commitment, and enjoyment.

Negative Personal Rapport

Negative interpersonal behaviors include excessive criticism, intimidation, hostility, favoritism, disrespect, and poor communication. Such behaviors frequently undermine athlete confidence, increase psychological stress, reduce intrinsic motivation, and weaken commitment to sport. Understanding athletes' perceptions of negative coaching behaviors therefore provides important insights for improving coaching practice.

The thesis identifies these dimensions as the principal constructs used to assess athletes' coaching preferences through the CBS-S instrument.

2.5 Jowett's 3+1Cs Model of Coach-Athlete Relationships

While leadership models primarily examine coaches' behaviors, relationship-centered theories emphasize the quality of interactions between coaches and athletes. Among these, Jowett's 3+1Cs model provides one of the most comprehensive explanations of effective coach-athlete relationships.

The model proposes four interrelated components:

Closeness reflects mutual trust, respect, appreciation, and emotional attachment between coach and athlete.

Commitment refers to both parties' willingness to maintain a productive long-term relationship focused on athletic development.

Complementarity describes cooperative interactions in which coaches and athletes fulfill their respective responsibilities while working toward common performance goals.

Co-orientation represents shared understanding, communication, and agreement regarding goals, expectations, and responsibilities.

The thesis provides an extensive review of this model and its associated empirical research, emphasizing its relevance for understanding coach–athlete relationships beyond observable leadership behaviors. Although the present investigation measures coaching behavior rather than relationship quality directly, the concepts of closeness and complementarity are reflected within the CBS-S dimensions of personal rapport, communication, and supportive coaching. Consequently, the 3+1Cs model provides an important complementary theoretical perspective for interpreting athletes' coaching preferences.

2.6 Gender and Coaching Behavior Preferences

Gender remains one of the most frequently investigated variables in coaching research. International evidence suggests that male and female athletes often evaluate coaching behaviors differently because of variations in communication preferences, motivational needs, emotional support requirements, and competitive experiences. However, empirical findings remain inconsistent across cultural contexts.

Some studies indicate that female athletes attach greater importance to supportive communication, empathy, and interpersonal relationships, whereas male athletes may place relatively greater emphasis on technical instruction, tactical expertise, and performance-oriented coaching. Other investigations report only minimal gender differences, suggesting that coaching preferences may depend more strongly on coaching quality than athlete sex.

Within Pakistan, research examining gender differences in coaching behavior remains extremely limited. This lack of evidence highlights the need for context-specific investigations capable of informing gender-sensitive coach education and athlete development programs. The present study therefore compares coaching behavior preferences between male and female college athletes to determine whether coaching expectations differ within the Pakistani higher education context.

2.7 Research Gap

The literature demonstrates substantial international interest in coaching behavior, leadership, and coach–athlete relationships. Nevertheless, three important gaps remain.

First, empirical investigations of athlete-centered coaching behavior within Pakistan are scarce. Most available studies originate from Western countries, limiting their direct applicability to South Asian sporting environments.

Second, few studies have simultaneously examined multiple dimensions of coaching behavior—including physical, technical, psychological, strategic, and interpersonal domains—using a comprehensive measurement instrument such as the CBS-S.

Third, evidence concerning gender-based differences in coaching behavior preferences among Pakistani college athletes remains largely unavailable.

Addressing these gaps, the present study contributes original empirical evidence regarding athletes' preferred coaching behaviors within Pakistani college sports while extending the application of internationally recognized coaching theories to a previously underrepresented cultural context.

3. Theoretical Framework

The present study is grounded primarily in **Chelladurai's Multidimensional Model of Leadership (MDML)** (Chelladurai & Carron, 1978; Chelladurai & Saleh, 1980), which provides

one of the most comprehensive theoretical explanations of coaching effectiveness in sport. The model proposes that coaching effectiveness is determined by the degree of congruence among three interrelated dimensions of coaching behavior: **required behavior, actual behavior, and preferred behavior**. Athlete satisfaction, team cohesion, and performance are expected to improve when coaches' actual behaviors correspond closely with athletes' preferred coaching behaviors while simultaneously satisfying situational demands.

According to the model, **required behavior** is determined by situational characteristics such as organizational policies, the nature of the sport, competition level, institutional expectations, and cultural norms. **Actual behavior** refers to the behaviors that coaches demonstrate during training and competition based on their personality, experience, philosophy, and coaching style. **Preferred behavior** represents the coaching behaviors athletes expect and desire from their coaches. Athlete characteristics, including age, gender, experience, personality, and competitive level, influence these preferences, while coach characteristics shape the behaviors ultimately displayed (Chelladurai & Carron, 1978).

The central proposition of the MDML is that coaching effectiveness depends on the compatibility between athletes' expectations and coaches' actual leadership behaviors. When athletes perceive that their coaches provide appropriate technical instruction, effective communication, emotional support, strategic guidance, and constructive interpersonal relationships, higher levels of athlete satisfaction, motivation, confidence, and performance are achieved. Conversely, discrepancies between preferred and actual coaching behaviors may reduce athlete satisfaction and weaken coach–athlete relationships.

The present study operationalizes athletes' preferred coaching behaviors through the **Coaching Behavior Scale for Sports (CBS-S)** developed by Côté et al. (1999). The CBS-S measures seven dimensions of coaching behavior that collectively represent the multidimensional nature of coaching:

- Physical Training and Conditioning
- Technical Skills
- Goal Setting
- Mental Preparation
- Competition Strategies
- Personal Rapport
- Negative Personal Rapport

These dimensions reflect both performance-oriented and interpersonal components of coaching and therefore correspond closely with the theoretical assumptions of the MDML.

Although the study is primarily informed by Chelladurai's leadership model, it is also supported conceptually by Jowett's **3+1Cs model of coach–athlete relationships** (Jowett, 2007). The concepts of closeness, commitment, complementarity, and co-orientation provide additional insight into why supportive coaching behaviors and positive interpersonal relationships contribute to athletes' satisfaction and development. In particular, the dimensions of personal rapport and negative personal rapport measured through the CBS-S capture important relational aspects emphasized in the 3+1Cs framework.

Accordingly, the conceptual framework guiding the study proposes that athletes evaluate coaching effectiveness through their perceptions of multiple coaching behavior dimensions. Differences in these perceptions, particularly across gender, provide valuable information regarding athlete-centered coaching practices within Pakistani college sports.



4. Methodology

4.1 Research Design

The study adopted a **quantitative cross-sectional survey design** to investigate coaching behavior preferences among college athletes in Lahore District, Pakistan. A quantitative approach was considered appropriate because the study sought to measure athletes' perceptions using a standardized questionnaire and statistically compare coaching behavior preferences between male and female athletes.

Cross-sectional survey research is widely employed in sports psychology to examine attitudes, perceptions, and behavioral preferences within naturally occurring settings. The design enabled the collection of data from a relatively large sample of athletes within a limited time while facilitating statistical comparison across demographic groups.

4.2 Research Population

The target population comprised **college athletes enrolled in public and private colleges in Lahore District** who actively participated in organized sports under the supervision of qualified coaches. Athletes represented different team and individual sports and possessed sufficient coaching experience to evaluate their coaches' behaviors.

The population included both male and female athletes participating in inter-college and district-level competitions. Restricting the study to active college athletes ensured that participants had recent and meaningful interactions with their coaches, thereby improving the validity of their responses.

4.3 Sampling Procedure

A **multistage sampling strategy** was employed to select participants. Initially, colleges offering organized sports programs were identified. Subsequently, athletes meeting the inclusion criteria were selected using an appropriate sampling technique consistent with the original thesis design. Both male and female athletes were included to facilitate gender-based comparison of coaching behavior preferences. Participation in the study was entirely voluntary, and only athletes willing to complete the questionnaire were included in the final sample.

4.4 Research Instrument

Data were collected using the **Coaching Behavior Scale for Sports (CBS-S)** developed by **Côté, Yardley, Hay, Sedgwick, and Baker (1999)**.

The CBS-S is a multidimensional instrument designed to measure athletes' perceptions of coaching behaviors across instructional, psychological, strategic, and interpersonal domains. The instrument has been widely employed in coaching research because of its comprehensive coverage of coaching practices and satisfactory psychometric properties.

The questionnaire consists of seven dimensions:

Dimension	Description
Physical Training and Conditioning	Coach's effectiveness in improving athletes' physical fitness and conditioning
Technical Skills	Instruction and development of sport-specific skills
Goal Setting	Assistance in establishing and achieving performance goals
Mental Preparation	Psychological preparation, confidence building, and emotional regulation
Competition Strategies	Tactical planning and competitive decision-making
Personal Rapport	Respect, communication, encouragement, fairness, and



Dimension	Description
Negative Personal Rapport	interpersonal support Hostility, criticism, disrespect, favoritism, and negative interpersonal behaviors

Responses were recorded using a Likert-type rating scale, with higher scores indicating stronger agreement regarding the presence or preference of specific coaching behaviors.

4.5 Validity and Reliability

The CBS-S has demonstrated satisfactory construct validity and internal consistency across diverse sporting contexts (Côté et al., 1999). Prior to data collection, the instrument was reviewed to ensure linguistic clarity and contextual suitability for Pakistani college athletes.

The reliability of each coaching behavior dimension was assessed using **Cronbach's alpha coefficient**, with coefficients above the commonly accepted threshold indicating acceptable internal consistency.

Content validity was further strengthened through consultation with experts in sports sciences and coaching research who evaluated the relevance and clarity of questionnaire items.

4.6 Data Collection Procedure

Formal permission was obtained from the relevant educational institutions before data collection commenced. Athletes were informed about the purpose of the study, assured that participation was voluntary, and advised that their responses would remain confidential.

Questionnaires were administered personally during scheduled visits to participating colleges. Participants completed the questionnaires independently under the supervision of the researcher, minimizing discussion among respondents and ensuring consistency in administration.

Completed questionnaires were carefully checked for completeness before data entry.

4.7 Ethical Considerations

The study adhered to accepted ethical principles governing research involving human participants.

Specifically,

- Institutional permission was obtained before conducting the study.
- Participants received clear information regarding the objectives of the research.
- Informed consent was obtained from all participants.
- Participation was voluntary.
- Respondents retained the right to withdraw at any stage without penalty.
- No identifying personal information was disclosed.
- Data were analyzed only for academic purposes.
- Confidentiality and anonymity were maintained throughout the research process.

These procedures ensured compliance with internationally accepted research ethics for social science and sports research.

4.8 Data Analysis

Data were entered into the **Statistical Package for the Social Sciences (SPSS)** for analysis.

The following statistical procedures were employed:

Descriptive Statistics

- Frequencies
- Percentages
- Means
- Standard deviations

These statistics were used to describe athletes' preferences across the seven coaching behavior dimensions.

Inferential Statistics

To examine gender differences in coaching behavior preferences, **independent-samples *t*-tests** were conducted.

The significance level was established at $\alpha = .05$. Statistical significance was determined using two-tailed probability values. Mean differences between male and female athletes were interpreted alongside standard deviations and confidence intervals where appropriate.

The combination of descriptive and inferential statistics enabled comprehensive examination of athletes' preferred coaching behaviors while addressing the study's research questions concerning overall coaching preferences and gender-based differences.

5. Results

5.1 Participant Profile

The study examined coaching behavior preferences among college athletes from public and private colleges in Lahore District. Both male and female athletes participated in the survey, enabling comparison of coaching behavior preferences across gender. The demographic analysis indicated that the sample represented athletes from different sports disciplines and age groups, providing an appropriate basis for examining athletes' perceptions of coaching behaviors.

5.2 Coaching Behavior Preferences

Descriptive analysis was conducted to examine athletes' preferences across the seven dimensions of the Coaching Behavior Scale for Sports (CBS-S), namely physical training and conditioning, technical skills, goal setting, mental preparation, competition strategies, personal rapport, and negative personal rapport.

Overall, the findings demonstrate that college athletes expressed positive preferences toward coaching behaviors that combined technical expertise with supportive interpersonal relationships. Athletes expected their coaches to provide structured physical training, develop technical competencies, assist with goal setting, prepare them psychologically for competition, and formulate effective competition strategies. Equally important, athletes valued coaches who demonstrated respect, encouragement, fairness, and positive interpersonal communication.

In contrast, behaviors reflecting negative personal rapport—including excessive criticism, disrespect, poor communication, or hostile interactions—received the least favorable evaluations, indicating that athletes strongly preferred supportive rather than punitive coaching approaches. These findings reinforce the multidimensional nature of effective coaching, where instructional competence and interpersonal effectiveness jointly contribute to athletes' perceptions of coaching quality.

5.3 Gender Differences in Coaching Behavior Preferences

To determine whether coaching behavior preferences differed between male and female athletes, independent-samples *t*-tests were conducted for each coaching behavior dimension. Statistical significance was evaluated at the 95% confidence level.

Physical Training and Conditioning

The analysis revealed a statistically significant gender difference in preferences for physical training and conditioning. Under the equal-variance assumption, the difference was significant ($t = 3.021, p = .003$, two-tailed), indicating that male and female athletes differed in the importance they attached to coaches' physical preparation practices.

Goal Setting

A significant gender difference was also observed for the goal-setting dimension. Independent-samples *t*-test results demonstrated statistically significant differences between male and female athletes ($t = 2.532$, $p = .004$, two-tailed), suggesting that athletes' expectations regarding coaches' role in establishing and monitoring performance goals varied according to gender.

Technical Skills

Athletes' preferences regarding technical coaching behaviors also differed significantly across gender. The independent-samples *t*-test produced a statistically significant result ($t = 2.919$, $p = .004$, two-tailed), indicating that male and female athletes did not evaluate technical instruction in the same manner.

Mental Preparation

The mental preparation dimension likewise showed significant gender differences. Although the one-tailed test was not significant, the two-tailed test demonstrated a statistically significant difference between male and female athletes ($t = 3.498$, $p = .001$), suggesting differing expectations regarding coaches' psychological support and mental preparation strategies.

Competition Strategies

Among all coaching dimensions, competition strategies demonstrated one of the strongest gender differences. The independent-samples *t*-test yielded a highly significant result ($t = 11.577$, $p < .001$), indicating substantial variation between male and female athletes in their preferences regarding tactical instruction and competition planning.

Personal Rapport

The analysis further revealed highly significant gender differences in personal rapport. Athletes differed considerably in their expectations regarding coaches' interpersonal communication, emotional support, fairness, and relationship-building behaviors ($t = 10.456$, $p < .001$). These findings suggest that interpersonal dimensions of coaching represent an important source of variation in coaching preferences across gender.

Negative Personal Rapport

The largest statistical difference emerged for negative personal rapport. Independent-samples *t*-test results showed a highly significant gender difference ($t = 14.124$, $p < .001$), indicating that male and female athletes responded differently to undesirable coaching behaviors such as criticism, hostility, disrespect, and poor interpersonal treatment.

5.4 Summary of Inferential Analysis

Overall, the inferential analyses indicate that gender significantly influenced athletes' coaching behavior preferences across all seven dimensions examined in the study. Although both male and female athletes valued technically competent and supportive coaching, statistically significant differences suggest that the relative importance assigned to different coaching behaviors varies according to gender.

The findings imply that a standardized coaching approach may not adequately address the expectations of all athletes. Instead, coaches should recognize gender-specific preferences when designing training sessions, providing technical instruction, communicating with athletes, and developing interpersonal relationships. Such athlete-centered coaching practices are likely to strengthen coach-athlete relationships and improve both athlete satisfaction and sporting performance.

The thesis findings further indicate that male athletes generally placed greater emphasis on physical training, conditioning, and technical skill development, whereas female athletes

demonstrated comparatively stronger preferences for supportive interpersonal relationships and psychological preparation. These patterns provide practical guidance for coaches working within college sports programs in Pakistan.

6. Discussion

The present study investigated coaching behavior preferences among college athletes in Lahore District, Pakistan, using the Coaching Behavior Scale for Sports (CBS-S). The findings demonstrate that athletes preferred coaching behaviors characterized by effective physical training, technical instruction, goal setting, mental preparation, competition strategies, and positive personal rapport, while negative personal rapport was consistently the least preferred coaching dimension. Furthermore, statistically significant gender differences were observed across all seven coaching behavior dimensions reported in the study. These findings contribute to the limited empirical literature on athlete-centered coaching in Pakistan and support the argument that coaching effectiveness extends beyond technical instruction to include psychological and interpersonal competencies.

The overall findings are consistent with **Chelladurai's Multidimensional Model of Leadership**, which proposes that coaching effectiveness depends on the alignment between athletes' preferred coaching behaviors and coaches' actual leadership practices (Chelladurai & Saleh, 1980). According to this model, athletes experience greater satisfaction and are more likely to perform effectively when coaches display behaviors that correspond with their expectations. The preference expressed by participants for physical training, technical instruction, strategic planning, mental preparation, and supportive interpersonal relationships suggests that college athletes expect coaches to adopt a balanced leadership approach rather than relying exclusively on technical expertise. The findings therefore reinforce the theoretical proposition that athlete preferences constitute an essential component of effective coaching.

One of the most important findings concerns athletes' strong preference for **positive coaching behaviors** across instructional and interpersonal domains. Participants valued coaches who demonstrated technical competence while simultaneously providing encouragement, respect, constructive feedback, and emotional support. This pattern supports previous research indicating that coaching effectiveness is multidimensional and cannot be reduced to physical or tactical instruction alone. International studies have similarly reported that athletes evaluate coaches according to their ability to combine instructional competence with effective communication and supportive relationships (Côté et al., 1999; Jowett & Cockerill, 2003). The present findings suggest that these principles are equally applicable within the Pakistani higher education context.

The findings regarding **physical training and conditioning** indicate that athletes place considerable importance on coaches' ability to develop physical fitness through structured and scientifically informed training. College athletes expect coaches to design training programmes that improve strength, endurance, agility, and sport-specific conditioning while considering athletes' developmental needs. These findings reflect the increasingly professional nature of competitive sports, where physical preparation constitutes an essential prerequisite for successful performance.

Similarly, athletes expressed strong preferences for **technical skill development**, highlighting coaches' instructional responsibilities. Technical competence has consistently been identified as one of the defining characteristics of effective coaching because athletes rely on coaches to refine performance techniques, correct errors, and facilitate continuous skill acquisition. The present findings therefore reinforce previous research suggesting that

technical expertise remains a fundamental expectation of athletes regardless of cultural context.

Another noteworthy finding concerns the importance of **goal setting and mental preparation**. Athletes preferred coaches who assisted them in establishing realistic performance goals and preparing psychologically for training and competition. These findings correspond with contemporary sport psychology, which recognizes psychological preparation as an integral component of athletic performance rather than an optional supplement to physical training. Coaches who assist athletes in developing confidence, maintaining concentration, managing competitive anxiety, and coping with pressure are likely to enhance both performance and psychological well-being.

The study further demonstrates that athletes attach considerable importance to **competition strategies**. Effective tactical preparation before and during competition enables athletes to make informed decisions under pressure and adapt successfully to changing competitive circumstances. The high evaluation of this coaching dimension suggests that athletes expect coaches to function not only as instructors but also as strategic decision-makers capable of analyzing opponents, modifying tactics, and communicating clearly throughout competition.

Among the interpersonal dimensions, **personal rapport** emerged as one of the most valued aspects of coaching behavior. Athletes preferred coaches who demonstrated fairness, honesty, empathy, encouragement, and respectful communication. This finding aligns closely with **Jowett's 3+1Cs model**, which emphasizes closeness, commitment, complementarity, and co-orientation as fundamental characteristics of successful coach-athlete relationships (Jowett, 2007). Positive interpersonal relationships facilitate trust, improve communication, strengthen athlete commitment, and promote greater satisfaction with coaching experiences. The present findings therefore support the growing consensus that effective coaching requires emotional intelligence and interpersonal competence alongside technical expertise.

Conversely, **negative personal rapport** received the least favorable evaluations among all coaching behavior dimensions. Athletes expressed clear opposition to behaviors such as excessive criticism, disrespect, hostility, intimidation, favoritism, and poor interpersonal communication. This finding reinforces previous coaching research demonstrating that negative coaching behaviors undermine athletes' confidence, reduce motivation, weaken coach-athlete relationships, and increase psychological stress. Coaches who rely predominantly on punitive or authoritarian approaches may therefore limit athletes' development despite possessing considerable technical knowledge.

One of the principal contributions of the present study is the identification of **significant gender differences** across all coaching behavior dimensions. Although both male and female athletes valued effective coaching, the statistical analyses reported in the thesis indicate that coaching preferences varied according to gender. These findings suggest that coaching effectiveness should not be conceptualized as gender-neutral. Rather, coaches should recognize that athletes may differ in their expectations regarding communication, psychological support, instructional strategies, and interpersonal relationships.

The observed gender differences may reflect broader sociocultural influences operating within Pakistani sport. Male and female athletes often experience different sporting environments, participation opportunities, communication patterns, and social expectations, all of which may influence coaching preferences. Consequently, coaches should avoid adopting standardized coaching approaches that assume identical athlete expectations across

genders. Instead, athlete-centered coaching should remain responsive to individual and contextual differences while maintaining fairness and consistency.

The findings also have important implications for **coach education programmes** in Pakistan. Traditionally, coaching certification has emphasized technical instruction, tactical knowledge, and physical conditioning. The present study demonstrates that interpersonal competencies deserve equal attention within coach development programmes. Training in communication, leadership, emotional intelligence, psychological preparation, conflict management, and relationship building should therefore become integral components of coaching education. Such reforms would better prepare coaches to meet athletes' expectations while fostering positive sporting environments.

From an institutional perspective, colleges and universities should incorporate athlete feedback into regular evaluations of coaching effectiveness. Athlete-centered assessment systems would enable sports administrators to identify coaching strengths and developmental needs while encouraging reflective coaching practice. Continuous professional development programmes focusing on leadership, athlete welfare, communication skills, and psychological support may further enhance coaching quality within higher education sports. Despite its contributions, the study possesses several limitations that should be considered when interpreting the findings. The investigation was limited to college athletes from Lahore District, thereby restricting the generalizability of the findings to other provinces, educational levels, or competitive settings within Pakistan. Furthermore, the cross-sectional design captures athletes' perceptions at a single point in time and therefore cannot establish causal relationships between coaching behaviors and athlete outcomes. The study also relied exclusively on athletes' self-reported perceptions without incorporating coaches' perspectives or observational data.

Future research should extend the present investigation by including athletes from universities, professional clubs, academies, and national teams across different regions of Pakistan. Comparative studies involving individual and team sports would further clarify whether coaching preferences differ according to sport type. Longitudinal and mixed-methods designs may also provide deeper understanding of how coaching behaviors influence athlete development over time. Additionally, future studies could examine the relationships between coaching behavior, athlete satisfaction, motivation, performance, resilience, and psychological well-being using more advanced analytical techniques such as structural equation modeling or multilevel analysis.

Overall, the findings demonstrate that effective coaching is a multidimensional process integrating technical competence, psychological preparation, strategic expertise, and supportive interpersonal relationships. Coaches who align their behaviors with athletes' preferences are more likely to foster positive coach-athlete relationships, improve athlete satisfaction, and facilitate long-term athletic development. By providing empirical evidence from the Pakistani higher education context, the present study contributes to the international literature on coaching behavior while offering practical guidance for coaches, sports administrators, and policy makers seeking to enhance the quality of sports coaching in Pakistan.

7. Conclusion

The present study examined coaching behavior preferences among college athletes in Lahore District, Pakistan, using the Coaching Behavior Scale for Sports (CBS-S). The findings demonstrate that athletes perceive effective coaching as a multidimensional process encompassing physical training and conditioning, technical skill development, goal setting,

mental preparation, competition strategies, and positive interpersonal relationships. Among these dimensions, athletes consistently preferred coaches who combined technical competence with supportive communication, fairness, encouragement, and respect. In contrast, negative personal rapport—including hostility, excessive criticism, poor communication, and disrespect—was identified as the least desirable coaching behavior.

The study further revealed statistically significant gender differences across all seven coaching behavior dimensions examined. These findings indicate that although male and female athletes share several expectations regarding effective coaching, important variations exist in how they perceive instructional, psychological, strategic, and interpersonal coaching behaviors. Consequently, coaching effectiveness should not be viewed as a standardized process but rather as an adaptive practice that recognizes athletes' individual and contextual needs.

The findings support Chelladurai's Multidimensional Model of Leadership by demonstrating that athletes' preferred coaching behaviors constitute an important determinant of coaching effectiveness. Likewise, the results reinforce relationship-oriented perspectives emphasizing that successful coaching extends beyond technical instruction to include trust, communication, mutual respect, and supportive interpersonal relationships. Collectively, the findings contribute to the limited body of empirical research on athlete-centered coaching within Pakistan and provide evidence supporting the integration of interpersonal competencies into coach education and professional development.

From a practical perspective, the study highlights the importance of adopting athlete-centered coaching approaches within Pakistani colleges. Coaches who successfully integrate technical expertise with effective communication, psychological support, and positive interpersonal relationships are more likely to enhance athlete satisfaction, motivation, commitment, and long-term performance. Consequently, sports organizations should recognize coaching as a holistic leadership process that promotes both athletic excellence and athlete well-being.

8. Practical Implications

The findings of this study have important implications for coaches, educational institutions, sports administrators, coach educators, and policy makers.

For Sports Coaches

- Coaches should balance technical instruction with effective interpersonal communication.
- Greater emphasis should be placed on positive reinforcement rather than criticism.
- Athletes should be actively involved in goal-setting and performance planning.
- Psychological preparation should become an integral component of routine coaching practice.
- Coaches should recognize that male and female athletes may differ in their coaching expectations and adapt communication strategies accordingly.

For Colleges and Universities

- Higher education institutions should establish regular mechanisms for evaluating coaching effectiveness from athletes' perspectives.
- Athlete feedback should be incorporated into coach performance appraisal systems.
- Sports departments should organize continuous professional development workshops on leadership, communication, athlete welfare, and sports psychology.
- Institutions should promote athlete-centered coaching philosophies across all sports programs.

For Coach Education Programs

Coach certification courses should extend beyond technical instruction to include training in:

- Leadership development
- Emotional intelligence
- Communication skills
- Conflict management
- Athlete motivation
- Psychological preparation
- Ethical coaching
- Inclusive coaching practices

For Sports Policy Makers

Organizations such as the Higher Education Commission (HEC), Pakistan Sports Board (PSB), provincial sports departments, and national sports federations should incorporate evidence-based coaching competencies into coach accreditation standards. National coaching policies should encourage continuous professional development focusing on both technical and interpersonal dimensions of coaching.

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