Analysis of the Internal Connection Among Coach-Athlete Relationships, Sport Confidence and Team Belongingness in the Context of Sport Management

Bichen Zhang

Moray House School of Education and Sport, The University of Edinburgh, Edinburgh, Scotland, EH8 8AQ, UK

Abstract. The quality of the relationship between coaches and players is a non-material interpersonal factor in sports team management that is difficult to measure but has a significant effect. The results are often shown indirectly in the emotional changes of the athletes and the group. In terms of the impact of this relationship on athletes' sports confidence and team sense of belonging, based on the framework of Self-Determination Theory and Social Identity Theory, and integrating Jowett's 3+1Cs relationship model and the systematic review by Kuruzović and Đorić, this study will be conducted. Intimacy, commitment and complementarity affect sports confidence through three paths in the study: "the sense of acceptance", "predictability" and "clarification of ability reference"; as the carrier of the team prototype, the quality of the coach's relationship with the athlete forms the interpersonal anchor of belonging; basic psychological needs satisfaction and team identity may act as mediators, while trait confidence and sport type can modify this effect. Based on the above analysis, sports team management should add relationship ability construction to the institutional system for coach training and evaluation, rather than treating it as merely a slogan-like team activity of psychological construction.

Keywords: Coach-athlete relationship, Sport confidence, Team belongingness, Self-Determination Theory, Social Identity Theory.

1. Introduction

For a long time, most research on the management of sports teams has concentrated on "hard factors", such as training load, tactics and reserves of physical fitness. Although they have the same technical ability, the circumstances of competition and the psychological pressure in different social environments are different. Therefore, the subject of this study will be the most frequent and significant interpersonal relationship in sports teams: coaches and players.

This relationship in the context of sports management should not be reduced to "master-apprentice affection". The four elements of Jowett's 3+1C model are Proximity, Intimacy, Complementarity and Enthusiasm; it is an operating system. The four points mentioned above are, respectively, trust and respect, continuous commitment, smooth role collaboration, and accurate mutual understanding; they have been incorporated into the daily training to form a relational basis for the psychological development of athletes [1].

According to the psychological needs in Self-Determination Theory, this is the reason. When the needs for autonomy, competence and relatedness are met, autonomous motivation and mental health rise. Coaches provide a choice of options, offer feedback on one's own abilities and take care of people's relationships; thus, these needs can be met. Another reason provided by Social Identity Theory is that coaches are often seen as condensed symbols of team norms and values; therefore, the relationship athletes have with their coaches may be generalised to an identification with the whole team and affect their sense of belonging.

However, most of the previous research has linked this phenomenon to either sport confidence or team cohesion individually and has not explored the combined effect of the three. To what extent is sports confidence a "psychological outcome" of good relationships? Is a sense of belonging an autonomous phenomenon, or has it been created through cooperation and trust? Clarification of these issues will provide practical support for the "how-to" of human resource management in sports teams.

This paper will try to answer the above questions in an organised way according to the system of sports management.

2. The Three-Dimensional Structure of Relationship Quality and Its Management Implications

Given the problems mentioned above, we need to identify the exact cause of the disorder in that relationship. The three plus one Cs in the model are as follows: Closeness is a close relationship between two people that is based on trust and affection. Jowett and Ntoumanis (2004) believe that closeness is the sense of connection between coaches and athletes; it is one of the emotions in their relationships. Emotionally motivated exercise refers to the level of readiness one has to express one's true emotions during exercise and whether one can learn from mistakes and correct them proactively [2]. Commitment is a future expectation. Jowett and Ntoumanis (2004) defined it as "the desire of the coach and the athlete to continue the sports relationship; that is to say, the sports combination is cognitively oriented towards the future". Commitment is a cognitive component of the relationship that shows a long-term orientation to that relationship. Competitive sports are cyclical, so athletes' tolerance for short-term fluctuations in the relationship largely depends on their confidence in the stability of this relationship. Complementarity refers to the coordination of roles for coaches and players, which takes the form of constructive cooperation, and it falls under the behavioural attributes of the relationship. When the coach's leading style and the learner's needs for learning are in harmony, the learner will be more confident in their own learning ability.

Kuruzović and Đorić (2023) used the PRISMA guidelines to conduct a systematic review, finding and including 56 studies [3]. A good relationship with one's coach can motivate and satisfy athletes in many ways, thereby improving their sporting performance and the desire to continue participating in sports. Good coaching relationships help reduce stress and burnout for athletes and improve their mental health. Therefore, the management intervention logic is as follows: improve the quality of relationships to help support the psychological functions of athletes.

It should be noted that the mechanisms of the three dimensions are not the same. Intimacy refers to the depth of emotional connection; Commitment is about the desired stability over an extended period; Complementarity is the tacit understanding of behaviour in role coordination. General emphasis on "the coach should care about the athlete" in sports team management is not enough. It is necessary to differentiate among the various psychological effects of different kinds of relationship investments and, based on this, develop more targeted coach training content. Jowett and Ntoumanis (2004) developed the Coach-Athlete Relationship Questionnaire (CART-Q) to provide a tool for this diagnosis, and its application should aim to improve the relationship rather than to simply rank coaches [2].

3. The Relational Construction Path of Sport Confidence

The Function of Relationship Quality ultimately affects the psychological condition of athletes. The above are the direct indicators of sports confidence. It is often considered to have this feature. Vealey (1986) distinguished between traits and states of confidence, and the former were stable beliefs and the latter were immediate certainties. Differentiation is not the same as having different degrees of self-confidence for the same athlete in various coaching situations or environments.

The impact of relationships on confidence is not that more praise will lead to higher confidence. Confidence is the feeling that one can meet one's needs for competence in a relationship, according to Self-Determination Theory. Fan et al. (2023) studied the situation of 256 young athletes and found that the satisfaction of basic psychological needs mediates the effect of relationships on burnout, and there is also sequential mediation from relationships to need satisfaction [4]. Competitive state confidence can be viewed as a demonstration of one's ability in a particular situation, and the relationship between the quality of relationships and mental health is thus indirect. When coaches set

feasible goals and provide timely feedback to help athletes improve, the athletes will be able to achieve these goals themselves; as a result, they will develop a strong sense of self-efficacy and confidence in subsequent training.

The impact of relationship quality is not only on the degree of trust but also affects how athletes perceive the coach's information. Nicholls et al. (2016) used a sample of 158 pairs of coach-athlete combinations (277 people) and found that the perception of relationship quality was related to both challenge and threat appraisal. This association was especially prominent on the coach's side [5]. At the same time, when it was good, the same feedback was given: "the coach is helping me"; however, when the quality was poor, the other interpretation was used: "the coach is not satisfied with me". The content of the information was unchanged; only the context of receiving it had changed.

Research on Social Identity Leadership also provides support. Haslam et al. (2020) have pointed out that social influence is exerted by members of the in-group, especially those who conform to the group prototype; leaders become "entrepreneurs of identity" through fairness and respect, and create a shared "we" consciousness [6]. The coach is in this position, and the quality of the relationship with the athlete affects the athlete's identification with the coach. López de Subijana et al. (2024) found that, among a sample of 145 elite athletes, coach social identity leadership can promote good mental health and boost performance satisfaction through the fostering of a "we"-consciousness [7]. The athletes view their coaches as their own, and the encouragement they receive may be absorbed by the athletes. Only the building of self-confidence is included in this. Coaching behaviour needs to build a sense of trust and recognition in the relationship as well. Over time, these images are accumulated in daily life and eventually affect people's sense of self-worth.

4. The Relational Anchor Point of Belongingness: The Coach as the Carrier of Team Identification

Confidence in sports is also closely related to one's sense of belonging in a team. Team belongingness is often reduced to "social attraction" of team cohesion, and the interpersonal process of forming belongingness is ignored. Carron and others (1985) developed the Group Environment Questionnaire (GEQ), and the dimension of "Individual's social attraction to the group" (ATG-S) measures how accepted athletes feel in the group. It can identify the level of satisfaction, but not why one feels satisfied or how that feeling was produced is unknown.

Social Identity Theory is also one of the reasons. Tajfel and Turner proposed that a person's self-concept includes the identity of the group to which they belong, and group identification is determined by how accessible and important the prototype attributes of that group are. A coach is a typical representative of a sports team; his training ideas, behaviour and other ways of interacting daily shape the "character" of the team and have a wide-ranging effect. Herbison et al. (2021) interviewed 12 junior ice hockey coaches to find out how they use their position to act as the in-group model, protector of the in-group, identity entrepreneur, and embedder [8]. When the athlete has built trust and respect for the coach, they have formed a relationship with the leader of the team's prototype.

This connection effect has been verified experimentally. De Backer et al. (2022) employed a structural equation model and, using a sample of 239 Belgian volleyball and basketball athletes, found that the coach's fair behaviour positively related to athlete performance. The three links are: the formation of a team, its division of labour, and the excellence of the leaders [9]. The perceived fairness of the coach fosters a sense of shared social identity among athletes, increases their sense of belonging to the team, and thus improves their perception of team goal cohesion. Belongingness thus finds a specific interpersonal support system.

This is the application in management practice. Organise group activities, use a team slogan to motivate the group, and promote informal socialisation; thus, we can skip the most fundamental method for fostering a sense of belonging: the relationship between athletes and coaches in daily training. An athlete who has long felt neglected or treated unfairly in training will not develop a sense of belonging to the team simply because of some food. At the foundation of a sense of belonging is a

good relationship between coaches and athletes. If the coach can consistently show respect, fairness and reasonable expectations in daily training, the athlete will be able to develop good emotional support for the team.

5. The Mediating Mechanism and Moderating Conditions Among the Three Variables

Sections 2 to 4 will introduce the structure of relationship quality and its effect on self-confidence and a sense of belonging, respectively. However, the connection among the three parties is not in a unidirectional flow. What is the relationship between sport confidence and team belongingness? How does the impact of relationship quality reach both of these results simultaneously?

At the foundation is the basic psychological need satisfaction. Felton et al. (2020) took a sample of 304 British athletes and found that the satisfaction of basic psychological needs mediated the relationship between coach-athlete relations and vitality, task cohesion, and social cohesion [10]. Zhang et al. (2026) carried out a cross-cultural study of 1,390 Asian college student athletes and further verified that the satisfaction of basic psychological needs mediated the relationship between coach-athlete relationships and competitive achievements; bootstrap analysis supported a significant indirect effect [11]. Coussens and others (2024) took a sample of 537 athletes and provided additional support perception data; they found that the effect of the relationship on self-confidence was significantly indirect, mediated by perceived coach support (ab = 0.16, 95% CI [0.10, 0.22]), but the mediation effect of receiving support itself was not significant [12].

Another way is to build a team. Miller and his colleagues (2020) took a sample of 412 athletes and found that relationship identification and group identification meditated the positive effect of coach identity leadership behaviour on self-efficacy and control [13]. The way to satisfy psychological needs is to answer "What does this relationship offer?", and the path of team identification answers "What can the athletes take away from the relationship and integrate into themselves?".

Trait self-confidence level of the athlete and the type of sport are both considered moderator variables in terms of moderating conditions. Athletes with a high trait of self-confidence may be better able to cope with daily changes in relationship quality; however, individual-sport athletes lack a sense of identity reinforcement at the team level and are more dependent on direct recognition from their coach for self-worth. The two inferences need to be verified by experiment.

In short, the coach-athlete relationship, sport confidence and team sense of belonging are interconnected in a cycle. Confident athletes are more likely to join in group activities and thus develop a sense of belonging; athletes with a strong sense of belonging are more willing to accept the challenging instructions from the coach, and their sense of ability is further strengthened through interaction with others. The intervention should consider all reasons in the psychology of relationships, and how they are carried out will also affect that system.

6. Management Transformation of Relationship Mechanisms: Institutional Embedding of Coaching Relationship Competence

The above analysis has shown how the quality of relationships affects athletes' mental health. However, for the mechanism to be converted into management actions, some deficiencies still need to be addressed. The relationship between the coach and the athletes forms the basis of team management and also influences the self-confidence and sense of belonging of the individuals concerned. If the quality of the relationship is so important, why has it been neglected in the evaluation of coaches and the design of team systems for such a long time? Relationship competence cannot be observed directly, so it is difficult to measure; thus, it is often mistaken for an attribute of a person or their teaching style.

Institutionalisation of relationship competence starts with providing a position for coaches in selection and training. KurtzFavero et al. (2026) conducted a qualitative study of 12 youth coaches

and found that formal coaching development programs still focus on technical and tactical knowledge, and pay insufficient attention to the interpersonal and introspective aspects of practice [14]. Evans et al. (2015) conducted a systematic review of 10 interpersonal coaching development programs and found that the indicator "maintenance within the sports organisation" was rarely reported [15]. If the relationship training is only a short-term intervention and not integrated into the continuous operation system of the organisation, it will be difficult to achieve lasting results.

Apart from the training aspect, the design of the system itself also needs to provide support for the stability of the relationship. Research by Shipherd et al. (2019) on 11 university sports teams found that coach turnover has both positive and negative effects on the emotional state of athletes and team dynamics [16]. Baghurst and Quick (2026) analysed the sports administrators at Florida's high schools to find that the turnover rate of coaching positions within three years exceeded 50%, and losses were particularly severe in football and baseball. The researchers believe that, as a result, there will be less support for the program and the development of student athletes [17]. In the process of adjusting or rotating coaching positions, managers need to make reasonable transitional plans to prevent harm to the relationship and confidence in the athletes.

At the same time, we should avoid reducing the relationship to an evaluation indicator by institutionalisation. The three attributes of CART-Q are Intimacy, Commitment and Complementarity, each with seven degrees. The Design Aim is to identify problems in relationships and foster change. If these tools are used directly in the assessment and ranking of coaches, they may feel defensive or damage the good relationship among colleagues. Based on the ethical use of measurement tools, this conclusion has not yet been verified empirically. Team management should regard relationship building as the cultivation of organisational ecology rather than short-term performance indicators.

7. Conclusion

The 3+1Cs model of the analytical framework is used in this paper to investigate the relationships among coach-athlete relationships, sport confidence and team belongingness. Therefore, the research has achieved three basic results. Among the three, the relationship between the coach and the athlete is the foundation, and closeness, dedication and harmony directly contribute to building self-confidence and a sense of belonging. The quality of one's relationships will affect how an athlete feels about being evaluated or encouraged during training; thus, it will alter their self-esteem and sense of belonging within the team. Sport confidence has an interpersonal construction characteristic. It is not only the result of one's inner strength but also the product of coaching interactions. The Quality of the relationship determines how well athletes receive and apply coaching advice. The same counsel can have various psychological effects based on the nature of the relationship, and more praise does not automatically lead to increased self-esteem. The basis of team sense of belonging is specific relationships among individuals, not general organisational culture. As the representative of the team prototype, the coach's daily interaction quality with the players is a primary source of a sense of belonging.

A cross-sectional design for the study of sports confidence cannot determine the direction of causality and has not tested for moderation effects. The samples of some studies consist mainly of college athletes, and generalisation to professional teams and youth groups should be done cautiously. Future research can adopt longitudinal tracking to examine the impact of changes in relationship quality on confidence and belongingness, and develop differentiated intervention plans for different sports types.

At the practical level, sports management should add the building of relationship capacity to the main contents of coach training and assessment. Communication skills, emotional response capabilities and an understanding of the psychological needs of athletes should not be considered "soft skills" to be learned last; rather, they are essential professional attributes. The Design of the team system should also ensure the stability of relationships and prevent disruptions in the athletes' emotional life due to changes in coaches or managers.

References

[1] Şenel, E., Küttel, A., Adiloğulları, İ., & Jowett, S. (2025). Psychological predictors of mental well-being in Judo athletes: Exploring the impacts of the coach-athlete relationship, social support, and psychological safety. Psychology of Sport and Exercise, 79, 102850.

[2] Jowett, S., & Ntoumanis, N. (2004). The coach–athlete relationship questionnaire (CART-Q): Development and initial validation. Scandinavian Journal of Medicine & Science in Sports, 14(4), 245–257.

[3] Kuruzović, N., & Đorić, V. (2023). Relations of coach-athlete relationship quality and athlete psychosocial functioning: A systematic review. SportLogia, 19(1), 1–20.

[4] Fan, F., Chen, J., Chen, Y., Li, B., Guo, L., Shi, Y., ... & Shi, H. (2023). How relationship-maintenance strategies influence athlete burnout: Mediating roles of coach–athlete relationship and basic psychological needs satisfaction. Frontiers in Psychology, 13, 1104143.

[5] Nicholls, A. R., & Perry, J. L. (2016). Perceptions of coach–athlete relationship are more important to coaches than athletes in predicting dyadic coping and stress appraisals: an actor–partner independence mediation model. Frontiers in Psychology, 7, 447.

[6] Haslam, S. A., Reicher, S. D., & Platow, M. J. (2020). The new psychology of leadership: Identity, influence and power. Routledge.

[7] López de Subijana, C., Pons, J., & Mallett, C. J. (2024). How is coaches' social identity leadership related to mental health in elite athletes? The mediating role of satisfaction with performance. Journal of Sports Sciences, 42(23), 2183–2190.

[8] Herbison, J. D., Cowan, T. W., Martin, L. J., Root, Z., & Bruner, M. W. (2020). Coaches' perceptions of social identity in youth sport: When youth athletes think and behave as "us". International Sport Coaching Journal, 8(2), 161–171.

[9] De Backer, M., Van Puyenbroeck, S., Fransen, K., Reynders, B., Boen, F., Malisse, F., & Vande Broek, G. (2022). Does fair coach behavior predict the quality of athlete leadership among Belgian volleyball and basketball players: The vital role of team identification and task cohesion. Frontiers in Psychology, 12, 645764.

[10] Felton, L., Jowett, S., Begg, C., & Zhong, X. (2021). A multistudy examination of the complementarity dimension of the coach–athlete relationship. Sport, Exercise, and Performance Psychology, 10(1), 27–42.

[11] Zhang, R., Rhim, Y., & Zhang, T. (2026). Cultural differences in motivational pathways linking coach–athlete relationship and self-reported competitive achievement: a cross-cultural study in east and Southeast Asia. Frontiers in Psychology, 17, 1879038.

[12] Coussens, A. H., Stone, M. J., & Donachie, T. C. (2025). Coach–athlete relationships, self-confidence, and psychological wellbeing: The role of perceived and received coach support. European Journal of Sport Science, 25(1), e12226.

[13] Miller, A. J., Slater, M. J., & Turner, M. J. (2020). Coach identity leadership behaviours are positively associated with athlete resource appraisals: The mediating roles of relational and group identification. Psychology of Sport and Exercise, 51, 101755.

[14] Kurtz-Favero, M., Wilson, S. G., & Côté, J. (2026). A coach leadership reflection tool: facilitating coach reflection as a pathway for interpersonal development. Frontiers in Psychology, 17, 1894977.

[15] Evans, M. B., McGuckin, M., Gainforth, H. L., Bruner, M. W., & Côté, J. (2015). Coach development programmes to improve interpersonal coach behaviours: A systematic review using the re-aim framework. British Journal of Sports Medicine, 49(13), 871–877.

[16] Shipherd, A. M., Wakefield, J. C., Stokowski, S., & Filho, E. (2019). The influence of coach turnover on student-athletes' affective states and team dynamics: An exploratory study in collegiate sports. International Journal of Sports Science & Coaching, 14(1), 97–106.

[17] Baghurst, T., & Quick, S. (2026). Analysis of coach and athletic director turnover in the Florida school system. International Journal of Sports Science & Coaching.