

**EXPLORING THE CONSTRUCT OF THE COACH-TEAM RELATIONSHIP:
CHARACTERISTICS, CONSEQUENCES AND ANTECEDENTS**

By

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ABSTRACT

This thesis investigates the coach-team relationship (CTR) in youth sport, advancing understanding beyond the traditionally dyadic coach-athlete relationship (CAR) toward a relationally attuned, team-level construct. Employing a multi-method design, the research comprises one quantitative and one qualitative study (comprising of three chapters).

The quantitative study (Study 1) revealed that athletes' perceptions of the CAR significantly converged within teams and that team-level CAR predicted key indicators of team functioning (e.g., cohesion and conflict) and individual athlete well-being. These findings provided initial empirical justification for conceptualising team-level relational climates.

The subsequent qualitative study explored the perceived existence of and characteristics (Chapter Four), consequences (Chapter Five), and antecedents (Chapter Six) of the CTR as perceived by youth athletes and coaches. Through reflexive thematic analysis of semi-structured interviews, three core characteristics of the CTR emerged, (1) passion, (2) support, and (3) commitment, each expressed in positive (e.g., harmonious passion, integrated support, attached commitment) or negative (e.g., diminished passion, divided support, detached commitment) forms. Positive CTRs supported several positive task-related (e.g. collective competence, embracing challenge, role clarity, and collective identity) and relationship-oriented (e.g., intrapersonal behaviours, and interpersonal; athlete-coach, athlete-athlete, and athlete-team) consequences occur. While negative CTRs supported several negative task-related (e.g., collective frustration, collective fear of failure, mutual

misunderstanding, and team division) and relationship-oriented (e.g., athlete and coach motivational and behavioural implications, and interpersonal; athlete-athlete, athlete-coach, athlete-team, coach-athlete and coach-team) consequences.

Antecedents of CTR quality represented individual, interpersonal, and team-level domains, including perceived autonomy, communication, feelings of competence, and trust.

In terms of further theoretical development, this thesis proposes a tripartite relational model encompassing coach-athlete, athlete-athlete, and coach-team relationships in team sports. It conceptualises relational cohesion and disintegration within team settings and contributes novel insights into the relational mechanisms that underpin the functioning of the team, athletes and the coach in interscholastic youth sport.

Practically, the findings highlight the importance of cultivating inclusive, consistent, and relationally sensitive coaching practices to enhance team and team sport athlete flourishing. This work offers a foundation for future research to further conceptualise, assess, examine the concomitants of and develop interventions to promote high-quality coach-team relationships within applied sport psychology and coach education.

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- spelling and punctuation
- formatting and sorting of footnotes and endnotes
- ensuring the thesis follows the conventions of grammar and syntax in written English
- shortening long sentences and paragraphs
- changing the voice (passive to active, or vice versa) or person (third to first, or vice versa) of verbs, as appropriate
- improving the positioning of tables and illustrations, and the clarity, grammar, spelling and punctuation of any text in or under tables and illustrations
- ensuring consistency of page numbers, headers and footers

LIST OF PUBLICATIONS AND CONFERENCE PRESENTATIONS

This thesis is comprised of four original empirical papers, which contribute to the following chapters:

- Chapter Two

Booth, S. J., Appleton, P., & Duda, J. L. Within-team interdependence of the coach-athlete relationship: Prediction of indicators of team dynamics and athlete engagement and well-being. TBD

- Booth, S. J., Appleton, P. R., & Duda, J. L. (2025). Conceptions of the coach-team relationship in the views of youth team sport coaches and athletes.

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- Chapter Five

Booth, S. J., Appleton, P., & Duda, J. L. (Under Review). Consequences of positive and negative coach-team relationships in the views of youth team sport coaches and athletes. *Qualitative Research in Sport, Exercise & Health*.

- Chapter Six

Booth, S. J., Appleton, P., & Duda, J. L. (Under Review). Antecedents of adaptive and maladaptive coach-team relationships in the views of youth team sport coaches and athletes. *International Journal of Sports Science & Coaching*.

In addition, the following conference presentations arose from material contained in this thesis:

Oral Presentations

- **Booth, S. J.**, Appleton, P., & Duda, J. L. (2021). Investigating the Concept and Features of the Coach-Team Relationship. *PGR Conference*. University of Birmingham, UK. June 2021**

** Awarded overall conference winner for best presentation from the PGR panel at the University of Birmingham.

Poster Presentations

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- **Booth, S. J.**, Appleton, P., & Duda, J. L. (2025). Understanding the Consequences of Adaptive and Maladaptive Coach-Team Relationships in Competitive Youth Team Sport. *Association of Applied Sport Psychology Annual Conference*. Montreal, Canada. October 2025

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LIST OF ABBREVIATIONS

AAR	Athlete-Athlete Relationship
CAR	Coach-Athlete Relationship
CART-Q	Coach-Athlete Relationship Questionnaire
CTR	Coach-Team Relationship
PPR	Peer-Peer Relationship
RTA	Reflexive Thematic Analysis
TA	Thematic Analysis
YSEQ	Youth Sport Environment Questionnaire
GCQ	Group Conflict Questionnaire
BRSQ	Behavioural Regulation in Sport Questionnaire
SVS	Subjective Vitality Scale
IMI	Intrinsic Motivation Inventory
ICC	Intraclass Correlation Coefficient
SPSS	Statistical Package for Social Sciences
SE	Standard Error
SD	Standard Deviation
CI	Confidence Interval
STEM	Science, Technology, Engineering and Mathematics
n	Sample Size
3Cs	Closeness, Commitment, Complementarity
3+1Cs	Closeness, Commitment, Complementarity, and Co-orientation

CDP	Coaching Development Program
C#	Coach Participant
SA#	Student-Athlete Participant
M	Medium
Range	Likert Scale
α	Significance Level
p	Probability Density
β	Standardised Regression Coefficients
B	Unstandardised Regression Coefficients
R^2	Coefficient of Determination
t	T-Value (probability distribution)
F	F-test (Two or more variables)

CHAPTER ONE

GENERAL INTRODUCTION

Athletic development, encompassing physical, sporting, and performance growth, is a central focus within the sport and exercise psychology literature (Heaney et al., 2021). Athletes develop not in isolation, but within rich social environments, where key figures such as coaches play a crucial role in shaping their journeys. Accordingly, extensive research has examined how coaches influence athletes through their overt behaviours (Côté et al., 1999), leadership styles (Chelladurai & Saleh, 1980), and the motivational climates they create (Castillo-Jiminez et al., 2022), impacting athlete motivation, commitment, and well-being.

Building on this foundation, a growing body of literature has sought to define the nature of effective coaching, proposing that it requires the consistent integration of professional, interpersonal, and intrapersonal knowledge to facilitate positive athlete outcomes (Côté & Gilbert, 2009; Nash et al., 2011). However, beyond technical knowledge and leadership behaviour, contemporary perspectives increasingly recognise the significance of relational processes and power dynamics within coaching practice (Potrac & Jones, 2009; Rylander, 2016). These dynamics highlight the coach's interpersonal impact, not only on individual athletes but also on the team as a collective.

A central focus of the present thesis is to extend this relational perspective by examining whether the traditionally dyadic coach-athlete relationship (CAR) can be meaningfully conceptualised at the team level. Specifically, it explores whether athletes' individual perceptions of their coach-athlete relationships aggregate within teams, forming a shared relational construct, a coach-team relationship (CTR), with implications for team functioning and athlete development.

To address this aim, the following sections critically review the literature underpinning the thesis, beginning with an overview of effective coaching, before exploring the complexities of coaching authority and power, relational coaching frameworks, and the foundations of the coach-athlete relationship. Lastly, the case is made for the potential aggregation of individual relational perceptions into a team-level construct.

The importance of relational processes within team environments is also reflected in the experiences of elite sport practitioners. For example, Jurgen Klopp, manager of Liverpool FC, captured this sentiment when he stated:

"All we do in life is about relationships. As a football team, we have to work really closely together... It's not for me to create an atmosphere in a room; each person in our team is responsible for that." (Klopp, as cited in Bobcat, 2021)

This perspective underscores the idea that effective coaching and team functioning are fundamentally relational and collective, aligning with the central focus of the present thesis. In order to examine these relational dynamics in meaningful and contextually grounded ways, it is essential to consider the settings and populations in which they naturally unfold.

The present thesis draws on data from youth team sport athletes and coaches situated within an independent high school in the United States. This population was intentionally selected given the developmental, social, and relational significance of sport participation during adolescence (Côté & Fraser-Thomas, 2007; Weiss, 2008). Youth sport represents a formative context where athletes begin to internalise values, form identities, and develop the psychosocial skills that underpin both sporting and

life trajectories (Fraser-Thomas et al., 2005). Within these environments, coaches hold considerable influence not only as instructors but as key social agents whose relationships with athletes can impact their motivation, well-being, and sustained participation (Jowett & Felton, 2024). Moreover, team sports offer a uniquely rich setting in which relational dynamics unfold across multiple levels, including between coaches and athletes, among teammates, and between the coach and the team as a collective (Carron & Eys, 2012).

Research has increasingly emphasised the need to study coaching relationships within ecologically valid contexts that reflect the realities of athletes' lived experiences (Smith & Sparkes, 2016). In youth team sports, athletes typically train and compete together under the direction of a single coach, creating a relational system where perceptions of the coach may become shared, negotiated, or contested within the team (Bruner et al., 2014). While substantial work has explored the coach-athlete relationship (see Jowett, 2025), no studies to date have conceptualised or examined the coach-team relationship (CTR) as a distinct, emergent construct. The current thesis seeks to address this gap by introducing and empirically investigating the CTR, a construct conceptualised and defined within this thesis. Given its potential significance for understanding how relational processes shape team functioning and athlete development, youth sport represents a critical context in which to explore the nature, antecedents, and consequences of coach-team relationships.

Effective Coaching

Within the sport and exercise psychology literature, coaches are widely recognised as vital agents of change in young people's physical, sporting, and psychosocial development (Fraser-Thomas et al., 2005; Horn, 2015). Coaches shape not only athletes' technical skills but also their motivational, emotional, and social experiences.

Researchers, in the field of sport psychology, have sought to define effective coaching. Côté and Gilbert (2009) proposed a comprehensive framework, describing coaching effectiveness as “the consistent and integrated application of professional, interpersonal, and intrapersonal knowledge and behaviours to facilitate athlete outcomes related to competence, confidence, connection, and character in specific sport contexts” (p. 316). Expanding on this definition, Gilbert and Côté (2013) categorised coaches' knowledge into three domains: professional knowledge, encompassing technical and tactical sport-specific expertise; interpersonal knowledge, referring to the ability to foster quality relationships; and intrapersonal knowledge, involving self-awareness and reflective practice within the sport environment.

The integration of these knowledge domains supports athlete development across multiple dimensions: competence (e.g., skill development), confidence (e.g., enhanced self-esteem), connection (e.g., interpersonal bonds), and character (e.g., moral development) (Vierimaa et al., 2012; Vierimaa et al., 2017). Effective coaching, therefore, requires not only technical expertise but also relational and reflective capacities, tailored to athletes' evolving needs.

Becker (2012) identified that coaching behaviours are most effective when they are supportive, individualised, clear, consistent, and appropriate to the athlete's

context. Coaches who engage in personalised, caring behaviours are more likely to foster positive athlete outcomes, including enhanced motivation, satisfaction, and performance. These findings resonate with broader conceptualisations of coaching as fundamentally a relational process (Jowett & Felton, 2024), where excellence emerges not merely from technical instruction but from the quality of the interpersonal bond between coach and athlete.

Prominent figures in sport have similarly acknowledged the centrality of relational processes. Jowett and Slade (2021) describe coaches (who prioritise authentic, personal connections with their athletes) as "talent magnets," attracting athletes who seek not only competitive success but also meaningful collaboration. Such relationships provide a critical foundation for athletic satisfaction, development, and thriving (Jowett & Cockerill, 2003; Mageau & Vallerand, 2003).

Coaches aiming to unlock and optimise their athletes' potential must foster deeper, collaborative relationships. Athlete insight often extends beyond the coach's technical knowledge (Saw et al., 2015), and athletes frequently exceed expectations when they feel seen, supported, and challenged (Jowett & Cockerill, 2003). Effective coaching thus demands humility, adaptability, and a commitment to mutual growth.

Interpersonal skills and social knowledge are critical for facilitating effective interactions and meeting athletes' psychological and developmental needs (Chan & Mallett, 2011). Embedding relational values (such as ability, intention, and integrity) into coaching philosophy and daily practice enhances the authenticity of coach-athlete relationships and promotes both personal and performance goals (Lara-Bercial & Mallett, 2016; Nash, Sproule, & Horton, 2011).

While models of coaching effectiveness highlight the integration of technical, interpersonal, and reflective competencies, coaching practice does not occur in a vacuum. Particularly within team sports, coaches operate within complex social systems marked by authority structures, role expectations, and group dynamics. Thus, understanding coaching effectiveness requires not only a focus on individual knowledge and behaviours but also an appreciation of power dynamics and relational processes at both dyadic and team levels. This broader perspective provides a critical bridge to the next section, which explores the role of authority and power within coaching practice.

Coach as Authority

In competitive team sports, creating an optimal environment in which both coaches and athletes can thrive often falls under the responsibility of the coach, who occupies a position of power and authority (Rylander, 2016). Power is a central component of all leader-follower relationships (Yukl, 2012) and is particularly salient in coaching contexts, where it reflects the ability to influence others and/or resist the influence of others (Chamani, 2015; Denison et al., 2017). The relationship between a coach's power and their coaching effectiveness highlights how coaches draw upon their authority to influence athlete behaviour and team dynamics, ultimately aiming to enhance performance (Potrac & Jones, 2009). Importantly, the coach-athlete relationship is inescapably shaped by power dynamics (Lyle, 2019), which are embedded in all social relationships and emerge through interactions among individuals and social groups (Iacopini et al., 2024).

Consistent with the focus of this thesis, the exploration of coaches' power is situated within the contexts of both individual and team sports. Although these settings share some commonalities, they also differ in meaningful ways that give rise to unique power dynamics. In team sports, performance is evaluated collectively rather than solely individually, meaning that success depends on the coach's ability to align diverse athletes' goals, skills, and personalities toward unified team objectives. Consequently, "athletes will most often train as a group, working together, with the coach overseeing the whole" (Lorimer & Jowett, 2009, p. 153-154), and athletes consistently emphasise the importance of having a designated coach to manage this process (Rylander, 2016). Within such structures, legitimate power becomes particularly central, as it defines the formal authority afforded to the coach. However, due to constraints such as limited playing opportunities, other forms of power (particularly reward power and coercive power) also become salient within coach-athlete interactions.

The most commonly cited framework for understanding power in sport is French and Raven's (1959) model of social power, which has been widely employed in research on team sports (Rylander, 2016). This model identifies five bases of power:

Position Power stems from the coach's formal authority, enabling them to reward or discipline athletes. It includes legitimate and coercive elements, which shape athlete behaviour and enforce team norms.

Legitimate Power derives from the coach's formally sanctioned role within the team hierarchy. Compliance with the coach's instructions reflects both recognition of status and institutional legitimacy.

Reward Power is based on the coach's ability to provide incentives, both tangible (e.g., playing time, praise) and intangible (e.g., emotional support, recognition), which influence athlete motivation.

Coercive Power refers to the coach's ability to administer or threaten punishment, such as reducing playing time or public criticism. While coercive tactics can produce short-term compliance, they often carry negative long-term consequences such as resentment or disengagement.

Personal Power arises from the coach's individual attributes, expertise, character, and interpersonal skills, rather than formal authority. Two key forms of personal power are:

Expert Power: Based on the coach's specialised knowledge and credibility. Athletes are more inclined to trust and follow coaches they perceive as competent and insightful.

Referent Power: Rooted in admiration, trust, and emotional connection. Coaches influence athletes they respect and relate to because of their expertise and how they lead, teach, and support others.

As athletes depend on their coaches for guidance, development, and access to sporting opportunities, a degree of dependency naturally forms. This asymmetry further intensifies the power dynamic within the coach-athlete relationship. Although power imbalances can position coaches to act as protectors and enablers of athlete development, they also carry the potential for misuse. When poorly managed, power dynamics may adversely affect athlete well-being, often unintentionally, as coaches face performance pressures tied to their own careers and livelihoods (Oakley, 2021).

Thus, understanding the multifaceted nature of power is essential for appreciating both the opportunities and risks inherent in coaching practice, in individual sports and team sports. As Steve Kerr, head coach of the Golden State Warriors, has reflected,

"You have to earn players' trust before you can ever coach them. Authority is a given, but respect is earned every day." (Kerr, cited in Marcus, 2019).

This perspective highlights that while positional authority may be formally granted, effective coaching depends on the relational quality cultivated through everyday interactions. Coaches must navigate these dynamics with intentionality, striving to use their authority in ways that foster mutually perceived high-quality relationships. Such relational quality, shaped by the exercise of power, is critical for promoting both athlete thriving and team cohesion.

Recognising the relational consequences of power sets the stage for the next discussion: the importance of a coach-athlete-centred approach, where coaching effectiveness is understood not as control over athletes, but as a shared journey of mutual growth and relational empowerment.

A Coach-Athlete-Centred Approach to Coaching Effectiveness

Given the inherent power dynamics embedded within coaching practice, there is increasing recognition of the need to move beyond models that privilege coach authority or athlete autonomy alone. Instead, a more relational, mutually empowering approach to coaching effectiveness has been advocated (e.g., see Duda et al., 2024). There is abundant anecdotal and empirical evidence to suggest that, within

the coach-athlete relationship, neither the coach nor the athlete can achieve success alone; both need one another to thrive in sport (Jowett & Shanmugam, 2016).

When coaching is conceptualised as either predominantly athlete-centred (where the athlete's learning, development, and well-being are the focus) or coach-centred (where the coach serves as the primary authority and athletes are positioned as more passive recipients) the scope, quality, and potential of the coaching relationship become restricted (Cassidy & Kidman, 2010; Kidman & Hanrahan, 2010). In contrast, when coaching is viewed as coach-athlete-centred, the process becomes more inclusive, dynamic, and mutually empowering (Heaney et al., 2022). As legendary basketball coach John Wooden reflected,

"A coach is someone who can give correction without causing resentment." (Wooden, cited in Gallimore & Tharp, 2004).

This perspective highlights the importance of balancing guidance and relational sensitivity, a balance central to coach-athlete-centred approaches.

A coach-athlete-centred approach offers a solid foundation for understanding the full potential of the coaching process and practice. Within this framework, the effectiveness and success of coaching reside not within the coach or athlete independently, but in the quality of the relationship they develop together. Both the coach and the athlete must engage with one another to develop, grow, and succeed, whether success is defined by satisfaction, skill development, personal growth, performance outcomes, and/or win-loss records.

This approach, places emphasis on the genuine purposes and positive intent underpinning the coach-athlete relationship, where "coaches and athletes are meaningfully connected [and] function as a medium that motivates, assures,

satisfies, comforts, and supports toward enhancing their sport experience and performance, as well as overall well-being” (Davis et al., 2019, p. 2). It frames the relationship as the central medium through which motivation, assurance, satisfaction, comfort, and support are cultivated, enhancing both parties' sports experience, performance, and overall well-being. Ultimately, it conceptualises coaching as a shared journey of mutual growth and responsibility, laying the groundwork for understanding coaching as a deeply relational process.

Relational Coaching

Building on the view that coaching effectiveness is grounded in shared relational processes, the concept of relational coaching emphasises the centrality of the interpersonal connection between coach and athlete. Relational coaching is defined as the interpersonal bond that fuels both athletic performance and personal development (Jowett, 2017; Jowett & Cockerill, 2003). It is often described as the "vehicle" that enables coaches to access and unlock athletes' potential (Jowett & Shanmugam, 2016), positioning the relationship itself as the medium through which learning and growth occur, and motivation is cultivated.

Viewed through the lens of social constructivism, which posits that reality is a dynamic, emergent, and participative process co-created through human interaction, relational coaching assumes a particular philosophical significance (De Haan & Sills, 2012). This perspective highlights that coaching is not a unidirectional act but an evolving relational process, where meaning arises through interaction and knowledge is co-constructed.

This relational understanding carries important implications for sport psychology practice (Jowett, 2017; Davis et al., 2022). As De Haan (2008) and Jowett (2017) describe, the coach and athlete are, in a sense, co-creating one another, where meaning emerges through their reciprocal engagement rather than through unilateral instruction. Thus, the coach is not merely an instrument serving the athlete, nor is the athlete a passive recipient. Instead, both are active agents in a dynamic, mutual process of influence (Jowett & Arthur, 2019).

Relational coaching, therefore, requires coaches to cultivate self-awareness and reflexivity (Knowles et al., 2001), allowing themselves to be shaped by the relational process rather than seeking to control it (Nelson et al., 2013). It demands that coaches embrace vulnerability, placing themselves at risk within the interaction and remaining open to being changed by the relationship (De Haan, 2008; Jowett, 2017).

Research on relational coaching has primarily focused on the dyadic coach-athlete relationship, with considerable attention given to its role in both individual and team sports (Jowett, 2017; Jowett & Cockerill, 2003; Lafrenière et al., 2011). However, to fully appreciate the complexity of coaching in team settings, it is necessary to recognise that the relational dynamics differ between individual and collective sport contexts. Power structures, social interactions, and role negotiations manifest differently in team environments (Lorimer & Jowett, 2009; Potrac et al., 2002), suggesting that relational coaching may take distinct forms across these contexts.

In team sports, coaches must manage not only their relationships with individual athletes but also their relationships with the team as a whole (Jowett &

Chaundy, 2004; Vella et al., 2013). Consequently, relational coaching in team settings likely involves an additional relational layer that encompasses both individual dyads and the broader group dynamic (Lorimer, 2011).

To further contextualise this complexity, research on social dynamics within sport teams provides valuable insight. A substantial body of literature has explored how team dynamics influence both individual outcomes and overall team functioning (Evans et al., 2012; Eys et al., 2009; Martin et al., 2012). Within these dynamics, coaches play a pivotal role as critical social agents, simultaneously addressing the individual needs of athletes and promoting effective group functioning and cohesion (Chelladurai, 2007; Cotterill & Cheetham, 2017).

Despite advances in conceptualisations of coaching effectiveness that emphasise professional knowledge, interpersonal skills, and contextual expertise (Côté & Gilbert, 2009), the majority of research continues to focus predominantly on the dyadic coach-athlete relationship. Comparatively less attention has been paid to the coach's influence at the collective team level (Hague et al., 2021), highlighting a significant gap in the literature.

Recognising the unique position of coaches in shaping team dynamics is therefore critical (Cotterill, 2012; Cotterill & Fransen, 2016). Coaching behaviours such as assigning roles, organising team events, and creating mentorship opportunities significantly influence athlete interactions and collective experiences (Carron et al., 1997; Chelladurai, 2007). Similarly, decisions concerning athlete selection, team objectives, normative expectations, and performance outcomes profoundly shape the relational climate of a team (Hodge et al., 2014; Martin et al., 2016; Smith et al., 2009).

Moreover, each team represents a unique constellation of individuals whose interactions unfold in novel, context-dependent ways (Evans et al., 2012; Fransen et al., 2015). This reality underscores the need to examine how coaches influence not only individual athletes but also the team as a collective, shedding light on the relational nature of their influence across the individual and team levels (Fransen et al., 2020; Hague et al., 2021; Jowett, 2017).

The present thesis seeks to extend understanding by examining (via a quantitative approach and in-depth qualitative methods) coach-team relational processes. The first aim is to investigate whether the quality of individual coach-athlete relationships, as perceived by athletes and assessed via the direct CART-Q (Jowett & Ntoumanis, 2004), can be meaningfully aggregated at the team level. Additionally, this thesis will examine whether established group dynamics, such as cohesion and conflict, are predicted by the aggregated quality of coach-athlete relationships at the team level (Carron et al., 2012; Jowett & Chaundy, 2004; Paradis & Martin, 2012), and similarly predicting individual athlete outcomes, including motivation, well-being, and dropout intentions (Adie & Jowett, 2010; Davis et al., 2024).

The quantitative work provides a foundation for further in-depth investigation of group-level coaching relationships. It contributes to the development of a conceptualisation of a new construct, the coach-team relationship (CTR). Thus, this thesis also comprises qualitative research exploring the characteristics, antecedents, and consequences of positive and negative coach-team relationships. Through this exploration, the thesis aims to provide a deeper and more nuanced understanding of

the relational foundations of team functioning, advancing both theoretical and applied perspectives within sport psychology.

Coach-Athlete Relationship: Foundations and Relevance in Team Sports

At the forefront of relational research in sport is the coach-athlete relationship (CAR), widely regarded as a cornerstone of athlete development, well-being, and performance (Jowett, 2017). Over the past two decades, extensive empirical work led by Jowett and colleagues has investigated the structure, dynamics, and outcomes of the CAR across a wide range of sports and competitive contexts (Davis et al., 2022; Jowett, 2007).

Conceptualisation and Measurement of the CAR

The CAR is a dynamic and reciprocal interpersonal relationship where coaches and athletes are interdependent in their feelings, thoughts, and behaviours (Jowett, 2007). This interdependence is operationalised through the 3+1Cs model, comprising four core dimensions:

- *Closeness* refers to the emotional bonds of trust, respect, appreciation, and interpersonal liking between coach and athlete.
- *Commitment* reflects the intention and willingness of both parties to maintain their relationship over time, particularly through challenges and setbacks.
- *Complementarity* captures cooperative, role-specific behaviours, such as the coach leading and the athlete responding, which enable functional partnership.

- *Co-orientation* describes the extent to which coach and athlete share mutual understanding about the nature and quality of their relationship, including both direct perceptions and meta-perceptions.

These dimensions reflect the depth of connection and mutual understanding that characterise high-quality coach-athlete relationships (Jowett, 2007).

To assess CAR quality, Jowett and Ntoumanis (2004) developed and provided initial psychometric validation of the Coach-Athlete Relationship Questionnaire (CART-Q), which has since undergone robust validation across multiple languages and cultures (Yang & Jowett, 2013) and different sporting contexts (Jowett & Yang, 2022). The original CART-Q consists of 11 items that measure athletes' and coaches' direct perceptions of closeness (4 items), commitment (3 items), and complementarity (4 items). Subsequent work by Jowett (2009) extended the CART-Q framework to incorporate meta-perspectives, capturing athletes' and coaches' perceptions of how they believe the other party views them. This extension answers the same 11 items from a meta-perspective (e.g., "My coach trusts me").

However, it is important to note that co-orientation, while conceptually central to the 3+1Cs model, is not directly assessed through specific items in the CART-Q. Rather, co-orientation is inferred by comparing the alignment between direct and meta-perceptions, reflecting the degree of shared understanding between coach and athlete. The focus on direct and meta perceptions of closeness, commitment, and complementarity provides a nuanced understanding of the relational experiences central to effective coaching.

Antecedents of High-Quality CARs

Understanding the antecedents of high-quality coach-athlete relationships (CARs) is critical for both theoretical advancement and applied coaching practice. Identifying the factors that foster relational quality enables researchers to map the social and psychological processes underpinning effective coaching. It provides practitioners with evidence-based strategies to optimise athlete development, motivation, and well-being.

Research has identified a range of antecedents associated with the development and maintenance of high-quality CARs. Attachment theory (Davis & Jowett, 2014; Davis et al., 2021) has been particularly influential from an individual difference perspective. Athletes and coaches with secure attachment styles are more likely to establish relational bonds characterised by trust, empathy, and responsiveness, which underpin closeness, commitment, and complementarity within the CAR (Davis & Jowett, 2014). Conversely, insecure attachment styles, particularly avoidant or anxious orientations, can hinder the development of mutual trust and cooperation (Felton & Jowett, 2013).

In regard to social environmental factors, coaches' interpersonal behaviours play a decisive role. Transformational leadership behaviours, such as fostering a shared vision, providing individualised consideration, promoting intellectual stimulation, and modelling idealised influence, have been linked to stronger, more adaptive relational bonds (Vella et al., 2013). Transformational leadership fosters environments of respect, trust, and empowerment (Turnnidge & Côté, 2018), which resonate closely with the psychological characteristics of high-quality CARs.

In work grounded in Self Determination Theory (Duda & Appleton, 2016), autonomy-supportive coaching climates represent another critical antecedent. When

coaches provide athletes with choice, rationale for tasks, opportunities for initiative, and acknowledge athletes' perspectives, they foster environments that satisfy basic psychological needs for autonomy, competence, and relatedness (Mageau & Vallerand, 2003). Such climates are consistently associated with stronger CARs, reflecting relational qualities grounded in mutual respect and empowerment.

Coaches' interpersonal behaviours at the micro-interactional level are equally important. Expressing empathy, offering social support, promoting open communication, and demonstrating trustworthiness are critical relational behaviours that facilitate the emotional bonding and collaborative role alignment necessary for strong CARs (Jowett, 2017; Davis et al., 2019). Acknowledging athlete individuality, showing responsiveness to emotional cues, and maintaining authenticity within relational exchanges are especially potent strategies for cultivating relational depth.

Social environmental factors such as task-involving motivational climates and inclusive team cultures have been shown to indirectly support CAR quality (Reinboth & Duda, 2006; Olympiou et al., 2008). Teams that prioritise cooperation, effort, and self-improvement over competition and normative comparison foster a relational environment conducive to connection, commitment, and complementarity between coaches and athletes.

Studying the antecedents of CARs is of conceptual interest but also holds critical applied significance. Coaches often seek tangible strategies to build more effective, supportive relationships with athletes in applied practice. Knowing which behaviours, leadership styles, and interpersonal climates promote relational quality provides direct, actionable insights for coach education, mentoring, and continuing professional development (Lara-Bercial & Mallett, 2016). Understanding

the antecedents of relational quality offers pathways to designing interventions that enhance athlete retention, satisfaction, psychological flourishing, and ultimately, team cohesion and performance.

Given the centrality of relational processes in coaching effectiveness and their impacts on athlete outcomes, a comprehensive appreciation of the determinants of high-quality coach-athlete relationships is essential. Such appreciation may be particularly relevant within team sport contexts, where the coach's ability to foster high-quality relational climates with both individuals and the group as a whole may be decisive in shaping overall team functioning. As such, the present thesis dedicates one chapter to examining the antecedents of the coach-team relationship (CTR) in the views of coaches and athletes. Such work can provide initial new insights into the interpersonal, structural, and contextual factors that facilitate adaptive or maladaptive relational climates at the collective team level.

Outcomes of the CAR for Individual Athletes

Research has consistently demonstrated that the quality of the coach-athlete relationship (CAR) is a critical determinant of a wide range of positive athlete outcomes (Jowett, 2017; Nichol et al., 2019). A high-quality CAR, characterised by closeness, commitment, and complementarity, supports athletes' psychological, emotional, and performance-related functioning.

Athletes embedded in supportive coach-athlete relationships report:

- Higher levels of intrinsic motivation and adaptive goal orientations, reflecting internalised, self-determined forms of motivation that promote long-term engagement and development (Adie & Jowett, 2010),

- Increased confidence, perceived competence, and psychological well-being, indicating the CAR's role in fostering athletes' sense of efficacy and emotional resilience (Davis & Jowett, 2014; Sagar & Jowett, 2015),
- Greater satisfaction with their sporting experience, encompassing enjoyment, fulfilment, and perceived support (Jowett, 2007),
- Lower risk of burnout, reduced dropout intentions, and higher levels of engagement and persistence over time (Felton & Jowett, 2013; Bartholomew et al., 2011).

These outcomes reflect the CAR's capacity to fulfil athletes' basic psychological needs for autonomy, competence, and relatedness, as articulated within Self-Determination Theory (Deci & Ryan, 2000). Research has demonstrated that high-quality coach-athlete relationships are positively associated with greater satisfaction of these basic needs, ultimately enhancing athletes' motivation and well-being (Jowett et al., 2017). When athletes experience relational climates that support these needs, they are more likely to thrive both within and beyond their sporting environments.

Moreover, the emotional quality of the CAR appears to act as a protective buffer against the maladaptive experiences often associated with competitive sport. Athletes in high-quality CARs demonstrate enhanced coping skills, greater resilience in the face of setbacks, and sustained psychological vitality, contributing to long-term participation and success (Kim & Choi, 2024). These findings highlight that the CAR is not simply an auxiliary factor in athlete development but constitutes a core relational foundation that shapes athletic and psychosocial trajectories.

Relevance of the CAR to Group Dynamics and Team-Based Outcomes

Beyond its impact on individual athletes, the CAR holds significant implications for team-based processes and collective outcomes. Emerging evidence suggests that the relational climate fostered by the coach extends beyond dyadic interactions to influence the broader functioning and dynamics of teams.

Specifically, high-quality coach-athlete relationships have been associated with:

- Enhanced collective efficacy, defined as the team's shared belief in its collective capabilities to succeed (Hampson & Jowett, 2014; do Nascimento Junior et al., 2019),
- Increased team cohesion, encompassing both emotional bonds among teammates (social cohesion) and unity toward shared performance goals (task cohesion) (Jowett et al., 2012),
- Improved conflict management, with higher-quality CARs associated with lower levels of interpersonal conflict and more constructive resolution of disagreements (Wachsmuth et al., 2018).

For instance, Hampson and Jowett (2012) found that athletes who reported closer, more committed relationships with their coaches perceived stronger collective efficacy within their teams, underscoring the relational foundations of shared confidence. Similarly, Felton et al. (2021) demonstrated that athletes' perceptions of relational complementarity (the responsiveness and behavioural synchronicity within the coach-athlete relationship) were associated with greater energy, passion, and perceived team cohesion.

These findings suggest that coaches' relational behaviours shape not only the quality of individual experiences but also the emergent relational dynamics within teams. High-quality CARs contribute to the development of team environments characterised by trust, unity, and shared purpose, all of which are critical for optimal team functioning and collective success.

Understanding the outcomes associated with the CAR is of critical applied importance. In practice, coaches must recognise that the relationships they cultivate with individual athletes have cascading effects beyond the dyad, shaping the emotional tone, motivational climate, cohesion and feelings of efficacy of the broader team. By intentionally fostering high-quality CARs, coaches can indirectly promote collective psychological resources that underpin team resilience, performance, and well-being.

Given the multidimensional outcomes associated with the CAR, it is essential to consider whether the relational quality experienced by individual athletes with their coach may converge to form a shared team-level construct [the coach-team relationship (CTR)]. Exploring this possibility represents a necessary step in advancing relational theories of coaching and providing new insights into how coaches influence not just individual athletes but also the collective dynamics and functioning of their teams.

From Individual Perceptions to Team-Level Meaning: A Theoretical Gap

While the coach-athlete relationship (CAR) has been extensively studied and applied within team sport contexts (e.g., Hampson & Jowett, 2012; Jowett et al., 2012; do Nascimento Junior et al., 2019), the vast majority of this work has examined the CAR

as a dyadic construct. That is, each athlete's relationship with the coach is conceptualised and measured independently, without consideration for whether these relational perceptions align or diverge across team members. Such an approach implicitly assumes that dyads within a team operate in isolation, overlooking the socially embedded nature of team sport environments, where relational experiences are shaped not only by coach-athlete interactions but also by peer dynamics, social comparison, and group norms (Carron & Eys, 2012; Eccles & Tenenbaum, 2004). Previous CAR research has yet to empirically test whether individual perceptions of relational quality converge to form a shared or emergent team-level relational construct.

While this approach of considering the CAR as a dyadic construct may be appropriate for individual sports, it is less clear whether it sufficiently captures the dynamics of team sport contexts, where athletes are embedded within broader, interdependent group systems (Lorimer & Jowett, 2009). In team environments, coaches interact not only with individuals but also with the team as a collective, suggesting that relational experiences may align or misalign across athletes, giving rise to shared or fragmented views of the coach-athlete relationship at the team level. Such (mis)alignment may also have repercussions for the athlete-athlete relationships, potentially strengthening team cohesion or, conversely, fostering division and conflict among teammates.

Studies linking CAR to group outcomes (e.g., team cohesion or collective efficacy) typically do so by treating individual athlete perceptions of the CAR as independent predictors, thereby missing the opportunity to examine shared relational views of the CAR in regard to the targeted team outcomes (Jowett & Shanmugam,

2016). Methodologically, the current measure of the coach-athlete relationship (CART-Q) does not include items referring to the team or test for within-team agreement, limiting their ability to capture collective relational phenomena (Jowett & Ntoumanis, 2004; Yang & Jowett, 2013).

Theoretically, the 3+1Cs model provides a robust framework for understanding dyadic closeness, commitment, and complementarity, but does not explicitly account for how these relational features may manifest at the collective level or become shaped by group-level processes such as social identity, motivational climate, or leadership culture (Rees et al., 2015; Turnnidge & Côté, 2018). As such, the CAR (while foundational) may be insufficient on its own to fully explain how relational processes operate in complex, interdependent team environments. This presents a critical gap in the literature and a compelling rationale for exploring whether the CAR extends beyond dyadic interactions to function as a shared, team-level phenomenon.

Currently, there is limited empirical evidence exploring whether the CAR holds (significantly) consistent meaning across team members. Although studies have linked CAR quality to group outcomes such as cohesion and collective efficacy (e.g., Hampson & Jowett, 2012; Jowett et al., 2012; do Nascimento Junior et al., 2019), the relationship itself continues to be treated as an individual-level construct in both theoretical frameworks and measurement models. No study has systematically tested whether perceptions of the CAR can be aggregated to form an emergent team-level construct (which study 1 in chapter 2 sets out to do).

Relevance to the Current Thesis

Building on this theoretical foundation, the present thesis seeks to examine whether the CAR can extend beyond dyadic relationships to operate at the team level within competitive team sport contexts. It investigates whether individual athletes' perceptions of their relationship with the coach aggregate meaningfully to form a shared relational environment, and whether this shared perception predicts key group outcomes, including cohesion, collective efficacy, conflict, and individual athlete motivations, engagement and well-being.

Understanding whether and how relational perceptions aggregate at the team level will contribute to both theoretical clarities, advancing relational coaching models beyond the dyadic lens, and practical applications, informing strategies for fostering unified, relationally cohesive team environments. Ultimately, this line of inquiry aims to provide new insights into how coaches can cultivate individual rapport and a collective team-wide relationship that supports athlete flourishing and team cohesion and subsequently holds performance implications.

Group Dynamics and Team Processes

Cohesion

Cohesion is a central construct in the study of group dynamics and has been examined across diverse fields, including clinical (Burlingame et al., 2011), social (Dion, 2000), military (MacCoun et al., 2006), exercise (Estabrooks & Carron, 2000), and sport (Carron et al., 1998). In this thesis, cohesion is viewed through the lens of sport teams, where a group is defined as:

Two or more individuals who possess a common identity, have common goals and objectives, share a common fate, exhibit structured patterns of interaction and modes of communication, hold common perceptions about group structure, are personally and instrumentally interdependent, reciprocate interpersonal attraction, and consider themselves to be a group. (Carron & Hausenblas, 1998, pp. 13-14)

Building on this group-level understanding, Carron, Brawley, and Widmeyer (1998) offered a sport-specific definition that reflects the dynamic, multidimensional, instrumental and affective nature of cohesion to reflect the idea that multiple factors contribute to a group's unity:

A dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs. (Carron et al., 1998, p. 213).

Cohesion is *multidimensional*, as there is more than one factor that could cause any group to stick together and remain united (Eys et al., 2022). Cohesion is also considered dynamic (Carron et al., 1985), evolving as groups develop and the forces that bind members shift over time. It also has an instrumental basis, groups, whether work, sport, or social, form with a purpose. Even social clubs, often viewed as casual, are established to meet needs like companionship or shared activities. Finally, cohesion has an affective component, as the bonds formed through group affiliation are inherently satisfying (Carron et al., 1985; Forsyth, 2021).

Carron et al. (1985), aligning with group dynamics theory, proposed a model that captures both individual and group perceptions of cohesion (see Fig. 1). They distinguish between task cohesion (unity toward achieving performance goals) and

social cohesion, which reflects the quality of interpersonal relationships and social interactions among teammates. It has been suggested that in group research, it is important to distinguish between the group and the individual in analysing group dynamics (Eys et al., 2022). Therefore, Carron et al. (1985) suggested that team members' perceptions of the group's integration (i.e., how united they believe the group to be as a whole) as well as their own individual attractions to the group (i.e., the extent to which they personally value, feel involved in, and are motivated by their team membership) are important considerations. Therefore, their framework of cohesion (see Fig. 1) contains four dimensions: 1) Group integration task (GI-T), 2) Group integration-social (GI-S), 3) Attractions to the group-task (ATG-T), and 4) Attractions to the group-social (ATG-S).

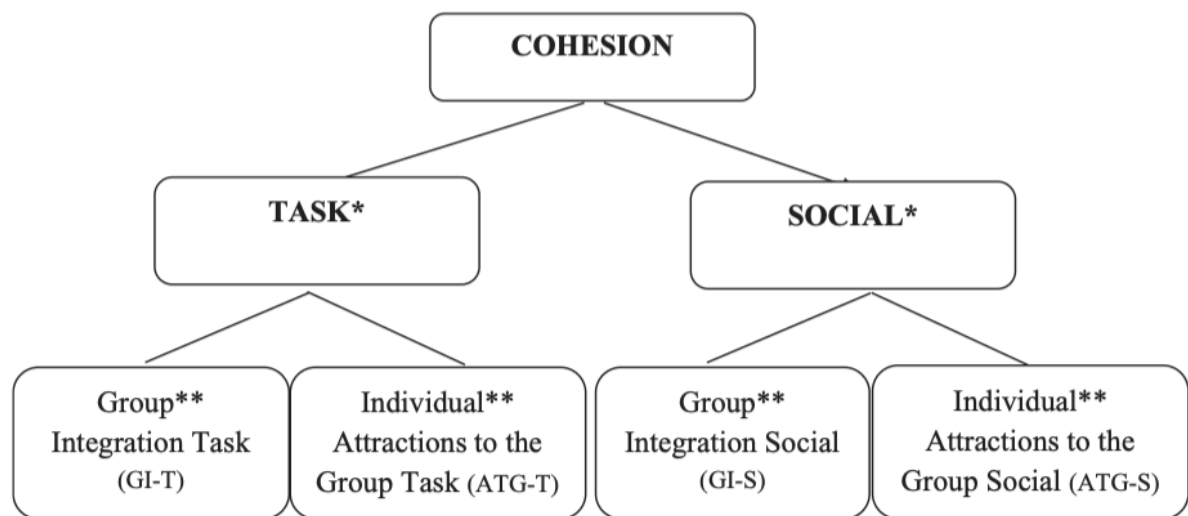


Figure 1. Conceptual model of cohesion (Carron et al., 1985). This figure identifies the dimensions of cohesion associated with adult-aged populations as well as those reported in child, adolescent and adult settings. Note. A single asterisk (*) identifies the levels with which children and adolescents (ages 9-17) perceive cohesion; double

*asterisks (**) identify the levels with which adults (ages 18+) perceive cohesion (Martin et al., 2013).*

Drawing from Carron et al.'s (1985) work, group Integration (GI) beliefs reflect an individual's perception of the group's unity, closeness, and bonding. In contrast, Individual Attractions to the Group (ATG) represent personal motivations to remain in the group and the extent to which it satisfies individual needs and objectives. Additionally, there are two fundamental foci for GI and ATG beliefs: task (T), which encompasses collective performance, goals, and objectives, and social (S) concerns, which relate to relationships within the group.

To operationalise this conceptual model, Carron et al. (1998) developed the Group Environment Questionnaire (GEQ), an 18-item inventory designed to measure cohesion in sports teams, i.e., the GI-T (task), GI-S (social), ATG-T (task), and ATG-S (social) aspects. The GEQ has since been utilised to examine various factors associated with cohesiveness in sports teams and exercise groups (Carron & Hausenblas, 1998; Carron et al., 1998).

While understanding the nature of cohesion is important, identifying the antecedents that give rise to group cohesiveness is essential for researchers and practitioners. A general conceptual model for cohesiveness in sports teams was proposed to identify the antecedents of group cohesiveness, the consequences and the types of cohesiveness present in sports teams (see Figure 2). The antecedents contributing to a sports team's cohesiveness fall into four categories: environmental, personal, leadership, and team (Carron, 1992).

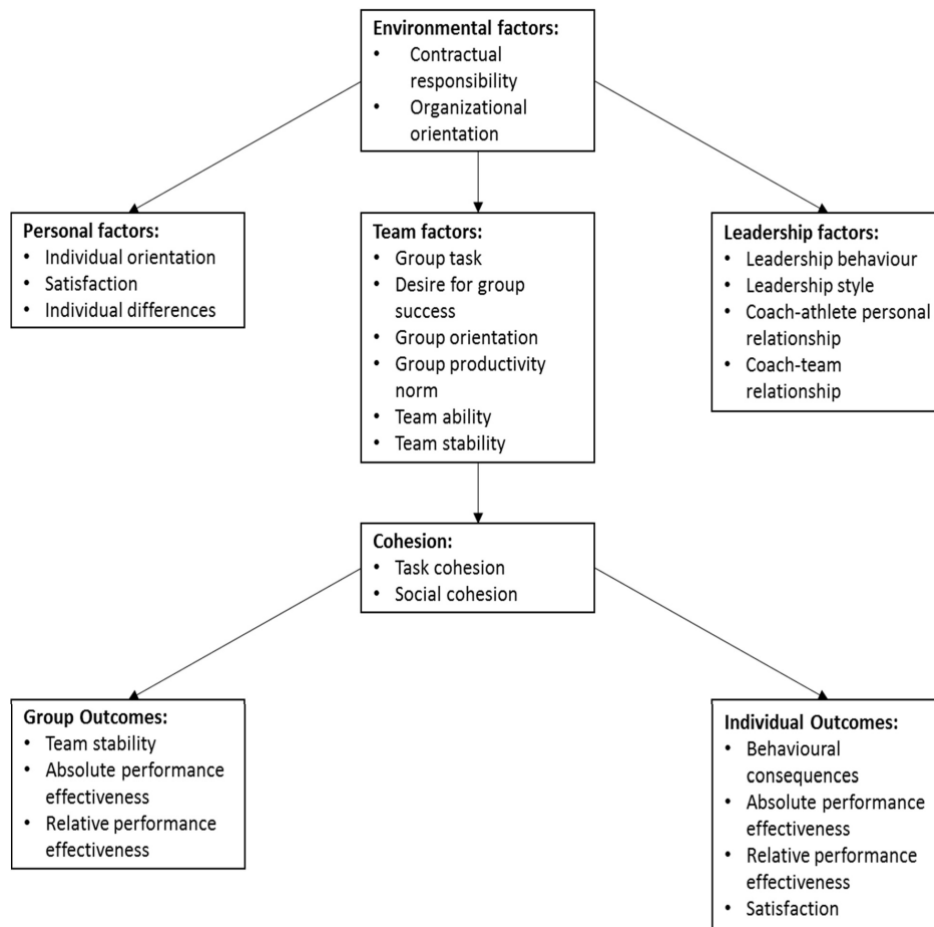


Figure 2. The conceptual framework for cohesiveness in team sport (Carron, 1992)

Environmental factors act as structural constraints within teams. These include contractual responsibilities, such as transfer rules and eligibility, which bind athletes more strictly than typical social groups. The second is organisational orientation, referring to differences in goals, age, sex, or maturity of members across teams. For instance, youth teams often prioritise social cohesion, while professional teams tend to emphasise task cohesion (Eys and Brawley, 2018; Eys et al., 2009).

Personal factors include members' motivation to complete tasks (task motivation), from harmonious relationships (affiliation motivation), and to gain satisfaction or rewards (self-motivation). Satisfaction itself reinforces cohesion, often

increasing after team success. Additionally, individual differences such as gender, race, religion, and socioeconomic background can influence perceptions of and contributions to team cohesion (Anderson & Dixon, 2019; Eys et al., 2015; Godfrey et al., 2021).

Carron, Coleman, Wheeler, and Stevens (2002) found that gender significantly moderated the relationship between cohesion and performance in sport teams. Gender differences were further supported by Eys et al. (2015), who found that the effect size for female teams was notably larger ($ES = .949$), indicating a strong positive relationship between cohesion and performance. In contrast, the effect size for male teams was moderate ($ES = .556$). This suggests that while cohesion is important across genders, it may have a stronger impact on performance in female sports settings.

Leadership factors include the coach's behaviour, leadership style, and the quality of relationships with both individual athletes and the team as a whole. When the coach-team relationship is strong, the coach is perceived as part of the collective unit. In contrast, when conflict arises, the coach may be seen as an outsider, weakening cohesion. For example, in a study involving 309 ultimate frisbee players in the UK (204 males and 105 females), Callow et al. (2009) investigated how transformational leadership behaviours relate to team cohesion. Descriptive analyses revealed that all measured transformational leadership behaviours were positively associated with task and social cohesion. Notably, fostering acceptance of group goals and promoting teamwork showed the strongest relationship with task cohesion ($r=.52$) and were also significant predictors of social cohesion ($r=.28$). Other leadership behaviours, such as high-performance expectations ($r=.42$ with task

cohesion) and individual consideration ($r=.41$), also demonstrated meaningful associations. These findings highlight the vital role of transformational leadership, particularly through the promotion of shared goals and teamwork, in shaping cohesive team dynamics.

Building on this, the coach's role extends beyond leadership behaviours to encompass the broader social environment they create. A coach who possesses the capacity and resources to foster an adaptive and empowering climate, one that is task involving, autonomy-supportive, socially caring, and inclusive (Duda & Balaguer, 2007; Duda et al., 2024), can further strengthen the social fabric of the team. Such environments promote a sense of 'groupness' described by Jowett (2017) as the shared experience of thinking, feeling, and acting as a unified collective. Through intentional and responsive dyadic relationships with each athlete, the coach facilitates mutual understanding, enabling both the coach and players to draw on each other's strengths. In this way, the coach-athlete relationship acts as a conduit for aligning individual and team goals, clarifying roles, and cultivating an emergent sense of interdependence and cohesion across the team.

These interpersonal and environmental processes contribute to the development of broader team factors, outcomes that represent the cumulative influence of personal leadership, and contextual elements. These include shared perspectives (group orientation), norms around performance (group norm), collective motivation perceptions of team stability, and clarity and acceptance of individual roles (group task). Together, they form the structural and psychological foundations of team cohesion.

Murrell and Gaetner (1992) explored how the salience of a common group identity influenced cohesion and performance within high school football teams (n=94). Using a survey measuring players' identification with their team, subunits (offence/defence), or individual roles, the researchers identified a "team unity" factor through discriminant analysis, which significantly predicted subgroup affiliation (offence vs defence) with 72% classification accuracy. Players on winning teams had lower team unity scores ($m=-0.35$) compared to losing teams ($m=0.29$), indicating that winners more strongly endorsed statements reflecting superordinate team identity over subgroup or individual affiliation. This supports the notion that group orientation and shared commitment to team goals (group norm, desire for group success) enhance cohesion and effectiveness. This study also revealed that team unity encompassed both on-field cooperation and off-field socialising, implying awareness of team stability and its role in developing cohesiveness. Overall, strong identification with the whole team, rather than with subgroups or individual roles, aligned with improved team functioning, reinforcing the importance of group task clarity and role acceptance in cohesive and high-performing teams.

Summary of Past Work on Cohesion

Cohesion is a complex, dynamic, and multidimensional construct central to understanding team functioning in sport (Carron & Hausenblas, 1998; Carron et al., 1998; Dion, 2000). It emerges through an interplay of environmental, personal, leadership, and team factors, and exerts critical influences on both team-level outcomes (e.g., performance, stability) and individual-level outcomes (e.g., commitment, satisfaction) (Carron, 1982; Carron et al., 2002; Eys & Brawley, 2018).

Cohesion is marked by both task and social dimensions (Carron et al., 1985; Carron et al., 1998; Eys et al., 2015). Task cohesion reflects how well team members work together to achieve collective goals, while social cohesion captures the enjoyment and satisfaction derived from interpersonal relationships within the team (Carron et al., 1985). Forsyth (2021) emphasises the centrality of cohesion in shaping group processes, particularly within performance-driven contexts where psychological safety, shared identity, and emotional climate are crucial. Cohesion thrives when both interpersonal bonds (common bond) and group-level identity (common identity) are nurtured, underscoring the importance of effective leadership in cultivating unified, high-functioning teams.

Understanding the antecedents of cohesion is therefore essential for both theoretical advancement and applied practice (Carron, 1982; Eys & Brawley, 2018). While environmental, personal, and team factors clearly contribute to cohesiveness (Carron, 1982; Eys et al., 2009; Kim et al., 2020), leadership factors, and particularly the quality of relational processes between coaches and athletes, emerge as critical drivers of team unity (Callow et al., 2009; Jowett, 2017).

Despite their theoretical prominence, the specific relational dynamics that foster or hinder cohesion at the team level have been largely underexplored (Felton & Jowett, 2013; Jowett & Chaundy, 2004). Most existing research has prioritised general coaching behaviours (e.g., transformational leadership, task involving or empowering motivational climates) rather than examining the quality of the relationship between coaches and their teams.

Addressing this gap, the present thesis proposes that the coach-team relationship (CTR) represents a key relational antecedent of team cohesion. Although

Carron et al. (1985) theorised the potential importance of the coach-team relationship within their foundational model of group dynamics and cohesion, to date no empirical studies have systematically examined the CTR as a distinct, measurable construct (Eys & Brawley, 2018; Carron et al., 1985) which holds implications for the degree of cohesion marking a team.

Due to the lack of direct empirical evidence, the necessity to explore the CTR can be justified through critical reasoning and theoretical inference from related research fields (Suddaby, 2010). Specifically, the logic of conceptual extension suggests that where empirical gaps exist, scholars can build arguments based on robust adjacent findings and theoretical implications (Suddaby, 2010). In this case, foundational work on dyadic coach-athlete relationships (CARs) provides strong evidence that relational quality significantly impacts individual athlete outcomes (Davis et al., 2019; Jowett, 2017). Furthermore, extensive group dynamics research underscores the importance of shared relational climates for fostering team cohesion and performance (Carron & Brawley, 2012; Eys et al., 2015).

Recent work by Jowett (2017) further suggests that high-quality dyadic coach-athlete relationships can foster cohesion a sense of collective unity where the team thinks, feels, and acts as a cohesive whole. This provides compelling theoretical rationale to investigate whether relational dynamics can extend beyond isolated dyadic bonds to become an emergent, shared phenomenon at the team level (one capable of shaping and sustaining cohesion itself).

Thus, the current thesis advances the argument that exploring the CTR is both theoretically warranted and practically necessary to enhance understanding of how relational processes influence team functioning in sport. Accordingly, this thesis

seeks to refine existing models of team functioning by integrating a relational lens. Investigating the characteristics, antecedents, and consequences of the coach-team relationship (CTR) will provide new insights into how coaches can intentionally foster cohesive, relationally unified team environments, thereby enhancing both athlete development and collective performance.

Building on this foundation, the following sections explore key team-level constructs, including collective efficacy, conflict management, vitality, and the coach-created motivational climate manifested on the team. These constructs are positioned within an integrated relational framework, advancing understanding of how relational dynamics at the team level underpin performance, engagement, psychological well-being, and the overall functioning of sport teams.

Individual and Team processes operating at the Team-Level.

Having established cohesion as a central construct in understanding group functioning and outcomes in sport (Carron & Hausenblas, 1998; Carron et al., 1998), it is important to consider the broader range of team processes that emerge from, interact with, and are influenced by relational dynamics.

Transformational leadership behaviours, including articulating a shared vision, providing individualised support, fostering intellectual stimulation, and modelling idealised behaviours, foster a team climate characterised by trust, respect, and collective efficacy (Bass & Riggio, 2006; Callow et al., 2009). When consistently enacted by coaches, these behaviours shape not only individual athlete perceptions but also the overall psychosocial environment of the team (Arthur et al., 2012).

Recognising that coach behaviours and leadership styles can shape collective team environments, researchers have demonstrated, through both theoretical rationale and statistical techniques such as aggregation, that certain individual-level variables can meaningfully represent team-level constructs when sufficient within-team agreement exists (Bliese, 2000; Kozlowski & Klein, 2000). Understanding how individual experiences give rise to emergent team properties is critical for advancing relational theories of team functioning (Carron & Eys, 2012; Eys & Brawley, 2018).

Accordingly, this section examines key psychosocial processes that operate across both individual and team levels, including cohesion, collective efficacy, conflict management, vitality, enjoyment, and dropout intentions. Each of these constructs plays a distinct role in shaping and/or reflecting the quality of team functioning, athlete well-being, and collective performance within sport contexts (Eys et al., 2015; Zaccaro et al., 2001).

Cohesion

As outlined earlier in this chapter, cohesion is a dynamic, multidimensional construct central to understanding group functioning and outcomes in sport (Carron & Hausenblas, 1998; Carron et al., 1998). While the preceding section provided a detailed overview of its conceptual foundations, it is important to re-emphasise here that cohesion can operate meaningfully across both individual and team levels of analysis.

Carron et al. (1985) conceptualised cohesion through the distinction between attraction to group (ATG), individual athletes' personal attachments to their team and group integration (GI), shared perceptions of the team's unity. Although athletes

may vary in their personal experiences of cohesion, when sufficient within-team agreement exists, perceptions of GI can be aggregated to represent a true team-level construct.

Empirical research supports this multilevel conceptualisation. At the collective level, team-aggregated cohesion has been shown to predict outcomes such as team performance and athlete satisfaction more robustly than individual perceptions alone (Bruner et al., 2020; Carron et al., 2002). Such findings illustrate that cohesion is not only a significant individual experience but also an emergent team property, highlighting the importance of understanding how relational and psychological constructs may simultaneously operate across multiple levels within sport teams.

Collective Efficacy

Collective efficacy refers to a team's shared belief in its collective ability to organise and execute the actions required to achieve its goals (Bandura, 1997; Feltz & Lirgg, 2001). While individual perceptions of efficacy are important, it is the consistency of belief across team members that allows collective efficacy to be conceptualised and measured as a team-level construct. When sufficient within-team agreement exists, researchers can justify the aggregation of individual efficacy perceptions to form a collective efficacy score for the team, reflecting an emergent property of the team rather than isolated individual attitudes (Eys et al., 2015; Klein & Kozlowski, 2000).

Empirical research has demonstrated that team-level collective efficacy predicts critical group outcomes, including enhanced performance, greater resilience under pressure, and increased persistence following setbacks (Feltz & Lirgg, 2001; Fransen et al., 2015; Leo, et al., 2019). In particular, collective efficacy has been

shown to be a potent determinant of success in interdependent sports, where coordinated team effort, synchronised communication, and mutual reliance are essential for achieving shared goals (Fransen et al., 2015).

Moreover, higher collective efficacy is associated with improved communication patterns, stronger team cohesion, and more adaptive leadership dynamics within teams (Fransen et al., 2017), reinforcing its critical role in the broader relational architecture that underpins team functioning and success in sport.

Given the relationally interdependent nature of collective efficacy, understanding how coaches foster shared efficacy beliefs within their teams is an important focus for relational sport psychology and is relevant to the broader investigation of team-level relational processes, such as the proposed coach-team relationship.

Conflict

Conflict in sport teams refers to perceived tensions or incompatibilities among members and is typically categorised as either task conflict (disagreements over goals, strategies) or roles, or relationship conflict (personal tensions and emotional friction between individuals) (De Dreu & Weingart, 2003; Jehn, 1995). These forms of conflict can operate at both the individual and team levels. Although athletes may perceive conflict uniquely, when perceptions are shared across team members, conflict emerges as a team-level construct, influencing collective functioning.

While some degree of task conflict can occasionally stimulate constructive dialogue and innovation (DeChurch & Marks, 2001; Jehn, 1995), unresolved or relational conflict typically undermines psychological safety, diminishes motivation,

and erodes team unity (Fransen et al., 2017). Research has demonstrated that shared experiences of conflict are particularly detrimental to team outcomes. For example, Tekleab et al. (2009) found that team-level conflict predicted lower levels of team performance and cohesion. Paradis, Carron, and Martin (2014) linked intra-team conflict with reduced athlete satisfaction, commitment, and collective efficacy in sport teams.

Given the inherently relational nature of conflict, understanding how coaches and teams manage emerging tensions is critical for maintaining functional and cohesive team environments. Conflict, particularly when it escalates to a relational level, disrupts the trust and mutual respect necessary for effective collaboration, making it a key construct in examining both individual and collective functioning within sport teams.

Vitality

Team vitality refers to a team's collective sense of energy, enthusiasm, and aliveness, emerging from the dynamic interplay between individual experiences and group-level dynamics (Bruch & Vogel, 2011). Vitality is considered to represent the quintessential state of eudaemonic well-being (DeHaan & Ryan, 2014; Ryan & Frederick, 1997). While vitality can be experienced and is usually studied at the individual level, its collective expression reflects shared psychological states that reflect team health and can contribute to team functioning.

Vitality experienced collectively, manifesting as shared energy and aliveness among team members, plays a critical role in enhancing overall team motivation, engagement, and cohesion. Findings support the significance of team

vitality for group functioning. For example, Carmeli, Ben-Hador, Waldman, and Rupp (2009) demonstrated that higher levels of team vitality were associated with increased collective engagement and better team performance outcomes. Similarly, Shirom (2011) argued that team vitality fosters sustained effort, resilience, and the capacity to maintain motivation over time, key ingredients for team success in high-pressure sporting contexts.

Such findings suggest that cultivating team vitality is not only beneficial for individual athletes but also serves as a powerful relational mechanism for enhancing group functioning, psychological well-being, and cohesion in sport teams.

Enjoyment

Athlete enjoyment is a key affective outcome in sport, characterised by feelings of satisfaction, pleasure, and positive engagement with the sport experience (Scanlan & Simons, 1992). While enjoyment is fundamentally experienced at the individual level it can also emerge as a shared, team-level phenomenon (e.g., Carron et al., 1998; MacDonald et al., 2011), reflecting the collective emotional tone of the group. Shared enjoyment can play a critical role in promoting team cohesion, commitment and motivation, fostering a more unified and resilient team environment. Conversely, a lack of positive affect within a team may signal a deteriorating motivational climate, potentially undermining collective engagement and performance (Hogue et al., 2013).

Research supports the conceptualisation of enjoyment as a construct that can be meaningfully aggregated to the team level when sufficient within-group agreement exists. Ramis, Torregrosa, Viladrich, and Cruz (2017) demonstrated that enjoyment is often shaped by shared team experiences and perceptions of the motivational

climate, further validating its relevance as a marker of the emotional quality of the team environment.

Dropout

Athlete dropout refers to the voluntary decision to discontinue participation in organised sport (Alfermann & Stambulova, 2007). It is a multifaceted phenomenon influenced by both personal and environmental factors (Crane & Temple, 2015). While dropout decisions are ultimately made at the individual level, they are often shaped by broader team dynamics and social contexts.

At the individual level, poor motivational quality, low enjoyment, and unmet psychological needs (particularly autonomy and relatedness) have been consistently linked to increased dropout risk (e.g., Sarrazin et al., 2002). However, relational environments within sport teams also play a critical role. Negative team climates, such as low cohesion, poor leadership, and disempowering motivational environments, can create collective dissatisfaction that fuels withdrawal intentions across multiple athletes simultaneously.

Recent research highlights that maintaining positive social connections within teams plays a critical role in sustaining athletes' engagement and mental health, emphasising the social and relational foundations of sport participation (Graupensperger et al., 2020). Supporting this, Gustafsson et al. (2018) found that athletes embedded within teams characterised by poor interpersonal dynamics and maladaptive motivational climates were significantly more likely to report symptoms of burnout and express dropout intentions.

These findings emphasise that while dropout is ultimately an individual decision, it is often rooted in relational and environmental team-level processes. This underscores the importance of fostering positive relational climates within sport teams, highlighting again the critical role of leadership, cohesion, and collective relational experiences in supporting athlete retention and well-being.

Motivational Climates (grounded in Achievement Goal Theory)

A task-involving climate, characterised by an emphasis on cooperation, personal improvement, and effort, fosters a positive emotional and motivational environment within sport teams (Newton et al., 2000). When athletes perceive a climate that prioritises mastery and effort over normative comparison and competition, they are more likely to experience enhanced task and social cohesion, greater enjoyment, and stronger satisfaction of basic psychological needs (Duda & Balaguer, 2008; Reinboth & Duda, 2006).

Research grounded in self-determination theory (Ryan & Deci, 2000) has consistently demonstrated that task-involving climates contribute to fulfilling athletes' needs for autonomy, competence and relatedness (critical to fostering self-determined forms of motivation) (e.g., Reinboth & Duda, 2006). Such motivational environments promote psychological well-being, intrinsic motivation, and sustained engagement across athletic contexts.

Importantly, the coach plays a central role as the primary architect of the motivational climate, shaping team norms, expectations, interpersonal interactions, and social structures (Clancy et al., 2016; Keegan et al., 2014). The motivational climate, therefore, can be conceptualised and assessed not solely as an individual

perception but also as a shared, emergent team-level construct, reflecting a collectively experienced social environment.

Evidence supports this multilevel perspective. For instance, Boyd et al. (2014) found that a task-involving climate was positively associated with both task and social cohesion at the individual level. Gano-Overway et al. (2005) demonstrated that aggregated perceptions of a task-involving climate were linked to enhanced team cohesion, reinforcing the notion that perceptions of motivational climates cultivated through coach behaviours, team dynamics and their interplay can be operating at the team level.

Empowering and Disempowering Coaching Climates

Drawing from on Self-Determination Theory (Deci & Ryan, 2000) and Achievement Goal Theory (Ames, 1992), the integrated model of empowering and disempowering coaching behaviours (Duda, 2013; Duda & Appleton, 2016; Duda et al., 2024) provides a comprehensive framework for understanding how coaches influence athletes' motivation and well-being.

Empowering coaching behaviours are characterised by the promotion of athlete autonomy, the encouragement of task involvement, and the fostering of socially supportive interactions, Disempowering behaviours reflect controlling practices and ego-involving cues that may thwart athletes' basic psychological needs (Duda et al., 2024).

At the individual level, empowering coaching behaviours have consistently been linked to greater enjoyment (Appleton & Duda, 2016), subjective vitality (Reinboth & Duda, 2006), autonomous motivation (Amorose & Anderson-Butcher,

2007), and persistence. In contrast, disempowering behaviours are associated with heightened anxiety, burnout, and dropout intentions (Isoard-Gauthier et al., 2016). Remaining within the focus on constructs at the team level, it is important to note that empowering (and disempowering) climates have also been conceptualised as shared, team-level perceptions. As demonstrated in the work of Boyd et al. (2014) and Reinboth and Duda (2006), when multiple team members perceive the coaching environment similarly, these perceptions can be aggregated to represent a collectively perceived team climate.

Recent preliminary findings from Balaguer et al. (2024) revealed shared perceptions of an empowering motivational climate to negatively predict physical and emotional exhaustion, both directly and indirectly through greater autonomous goal motives. Conversely, disempowering climates at the team level positively predicted this symptom of burnout, with effects mediated via controlled goal motives.

Leadership Style

Key constructs within models of leadership style such as the concept of transformational leadership (Yukl, 2012), also support the interdependence of member views. Although initially perceived individually, leadership behaviours may converge into emergent, shared perceptions that collectively influence team functioning. For example, Hoffman et al. (2011) demonstrated through meta-analytic evidence that aggregated perceptions of transformational leadership can function as a team-level variable, influencing collective outcomes such as team cohesion and performance.

Such findings reinforce the theoretical and practical relevance of examining psychosocial constructs not only at the individual level but also as emergent, team-level phenomena within sport contexts.

Section Summary

This section has highlighted how key psychosocial constructs, including cohesion, collective efficacy, conflict, vitality, enjoyment, motivational climate, and leadership, can operate meaningfully at both individual and team levels within sport settings. Recognising that individual perceptions can converge into emergent team-level properties offers a deeper and more ecologically valid understanding of team functioning. This multilevel perspective is central to the current thesis, which aims to examine relational dynamics not only between individual coaches and athletes but also across teams as collective entities. The following section synthesises the key theoretical insights and gaps identified and outlines the rationale for the studies that follow.

Summary and Research Aims

One aim of this thesis is to investigate whether the coach-athlete relationship (CAR) demonstrates sufficient within-team agreement to be conceptualised as a team-level construct, referred to here as the coach-team relationship (CTR). By examining relational processes (the CTR) at both the individual and team levels in predicting team-relevant (degree of cohesion and conflict) and indicators of athlete engagement and well-being, this research seeks to contribute a more nuanced

understanding of the mechanisms underpinning team dynamics and athlete-related outcomes.

Through an in-depth qualitative approach, this thesis also explores the characteristics, antecedents, and consequences of the coach-team relationship, with particular attention to the ways relational climates may function adaptively or maladaptively within sport teams. By bridging relational theories of coaching with team dynamics frameworks, this work aims to advance both theoretical conceptualisation and applied understanding of the coach's role in shaping relational environments.

It is anticipated that the findings will contribute new insights into the relational processes that drive effective team and individual athlete functioning. The results of this research can inform the design of future coach education and development initiatives and support the creation of sporting environments that promote athlete thriving, cohesion, and sustainable success.

Thesis Structure

Chapter 1 - Introduction to the Literature

This chapter introduces the conceptual and empirical foundations of the thesis. It critically reviews the literature on the coach-athlete relationship (CAR) and its relevance in team sport contexts. It highlights the dominance of individual-level approaches and the growing interest in group-level relational constructs. The chapter situates the need for examining coach-team relationships (CTR) within broader discussions of team functioning, cohesion, and motivation. It identifies key gaps that inform the thesis aims and research questions. Establishing this foundation is

essential for justifying the shift from traditional dyadic frameworks toward more integrated, team-level analyses. It also sets the stage for a multi-level exploration of how coaching relationships shape individual outcomes and collective ones, thus guiding the thesis's theoretical and methodological approach.

Chapter 2 - A Multilevel Analysis of the Coach-Athlete Relationship and Its Implications for Team Functioning and Athlete Outcomes

This chapter presents a multilevel quantitative study examining whether youth team sport athletes' perceptions of the coach-athlete relationship (CAR) converge sufficiently within teams to justify its conceptualisation as a team-level construct.

Drawing on data from 157 athletes across 20 teams, the study tested whether team-level CAR predicted collective outcomes (e.g., task cohesion, conflict) and individual outcomes (e.g., motivation, well-being, dropout intentions). Results showed significant within-team agreement and revealed that stronger team-level CAR was associated with better team functioning and, overall, more adaptive individual experiences and responses.

This study is a pivotal first step in addressing the thesis's central aim of understanding coach-team relationships. The chapter provides a foundation for exploring coaching relationships beyond the individual dyad by demonstrating that coach-athlete relationships can be meaningfully aggregated. The findings contribute novel insights to sport psychology theory by providing support for the concept of a shared (within team) relational connection with the coach, while also informing coaching practice by highlighting the links between this shared perception of the

coach-athlete relationship on teams to indicators of both team dynamics and athlete development.

Chapter 3 - Methodology

This chapter outlines the research design and methodological framework guiding the thesis, with particular emphasis on the methodology employed in the qualitative study comprising this thesis. A multi-method design incorporated a quantitative study (Study 1) and a qualitative study (Chapters 4, 5, and 6). The chapter is structured in two parts: (1) philosophical assumptions and research design, and (2) qualitative methodology (with the details of the method for the quantitative study integrated into Chapter 2)

Part One introduces the researcher's evolving worldview, shaped by personal, professional, and cultural experiences in sport psychology. A pragmatic stance allowed for the integration of postpositivist and constructivist paradigms, which were applied respectively across one quantitative and one qualitative study presented in the thesis. This philosophical grounding was essential in enabling the thesis to explore both the measurable structures and the subjective experiences of coach-athlete and coach-team relationships, respectively.

Part Two details the methodology employed in the three qualitative chapters, which involved interviews with 23 athletes and coaches. Reflexive thematic analysis explored the perceived existence and characteristics (Chapter 4), consequences (Chapter 5), and antecedents (Chapter 6) of the CTR. The researcher's insider-outsider position and counselling-informed interviewing approach supported depth and rigour. The methodological approaches enabled a rich, contextualised

understanding of relational processes in team sport, offering theoretical development and practical insight into how coaching relationships operate at the team level in team sports.

Chapter 4 - Conceptions of a Coach-Team Relationship in the Views of Youth Team Sport Coaches and Athletes

This chapter introduces the coach-team relationship (CTR) as a distinct yet interrelated construct alongside the coach-athlete relationship (CAR). Drawing on semi-structured interviews with youth sport coaches and athletes across seven team sports, the reflexive thematic analysis identified three core characteristics of the CTR: passion, support, and commitment, each expressed in positive or negative forms. High-quality CTRs were seen to enhance team unity and peer relations, whereas poor CTRs contributed to division and disengagement.

This study provides a critical conceptual shift in the thesis by positioning the CTR as a unique relational layer within team sport, extending beyond the traditional dyadic lens of the CAR. By proposing a tripartite relational model, comprising coach-athlete relationships (CARs), athlete-athlete relationships (AARs), and coach-team relationships (CTRs), the chapter deepens understanding of how interpersonal dynamics operate systemically within teams. It offers a foundation for theorising how coaches influence collective experience and team cohesion, setting the stage for subsequent chapters exploring the CTR's consequences and antecedents in more detail.

Chapter 5 - Consequences of Adaptive and Maladaptive Coach-Team

Relationships in the Views of Youth Team Sport Coaches and Athletes

This chapter explores the perceived consequences of positive and negative coach-team relationships (CTRs). Reflexive thematic analysis of interviews with coaches and athletes revealed that positive CTRs foster thriving team processes (e.g., collective efficacy, role clarity, identity) and beneficial outcomes for both the team member and the team (e.g., athlete flourishing, team belonging). In contrast, negative CTRs contributed to deteriorating team functioning (e.g., role ambiguity, disconnection) and relational strain (e.g., disengagement, coaching fatigue).

This study builds on the conceptual groundwork established in the previous chapter by examining the real-world implications of CTR quality for team and individual functioning. It offers in-depth information regarding how CTRs can act as either enabling or constraining forces within team environments, directly influencing psychological safety, cohesion, individual and team 'health' and overall performance. The chapter deepens the thesis's relational perspective by foregrounding the experiential voices of athletes and coaches. It offers valuable guidance for practitioners aiming to create more inclusive, connected, and psychologically supportive team cultures.

Chapter 6 - Antecedents of Adaptive and Maladaptive Coach-Team

Relationships in the Views of Youth Team Sport Coaches and Athletes

This chapter investigates the antecedents of positive and negative coach-team relationships (CTRs) in youth sport. Reflexive thematic analysis of interviews with high school varsity coaches and athletes identified four antecedents of adaptive

CTRs: shared motivational understanding, role clarity, effective communication, and mutual perceptions of competence and trust. Maladaptive CTRs were deemed to be a result of inauthenticity, lack of commitment, power struggles, poor communication, and diminished confidence in the coach or team.

This study contributes to the thesis by shifting focus from the emerging differential characteristics and consequences of positive and negative CTRs to the conditions that give rise to them. By identifying the interpersonal, contextual, and structural factors that shape the quality of coach-team relationships, this chapter enhances the understanding of how relational climates are co-constructed in youth sport. It offers both theoretical advancements, by specifying relational predictors to adaptive and maladaptive team dynamics, and practical guidance for coach education and team development, reinforcing the importance of intentional, relationally competent coaching.

Chapter 7 - Overall discussion with a focus on project limitations and future research

This chapter brings together the key findings and contributions of the thesis, revisiting its central aim: to explore the coach-team relationship (CTR) as a distinct construct from the well-established coach-athlete relationship (CAR). It begins by reiterating the importance of relational coaching in team sport and the need to move beyond individual-level models toward conceptualising relationships as emergent, team-level phenomena.

The chapter summarises and integrates findings across the quantitative and qualitative studies, demonstrating that perceptions of CAR can operate as a shared

team-level construct, and that the CTR, characterised by collective passion, support, and commitment, holds unique implications for team functioning. Adaptive CTRs were associated with team flourishing and interpersonal security, while maladaptive CTRs contributed to team fragmentation and relational strain. Based on present findings, the chapter also identifies key antecedents that facilitate or undermine the development of these relationships.

Theoretically, the thesis advances a tripartite relational model (CAR-AAR-CTR) and introduces the conceptualisation of relational environments within team sport, offering a foundation for constructs such as "relational cohesion" and "relational disintegration." While the findings contribute important conceptual and applied insights, the chapter emphasises that this work represents an early step in understanding CTRs. It outlines critical directions for future research, particularly advocating that the present research be replicated across different age groups of athletes, competitive levels, and cultural backgrounds. The chapters also point to the need for the development of robust measurement tools for CTR, longitudinal studies, and cross-contextual validation efforts. Intervention efforts drawing from this emerging literature are advocated. In closing, the chapter highlights how recognising, nurturing, and assessing coach-team relationships can support the development of more relationally attuned team environments, an essential advancement for coaching practice, athlete development, and team well-being within youth sport and beyond.

CHAPTER TWO

WITHIN-TEAM INTERDEPENDENCE OF THE COACH-ATHLETE RELATIONSHIP: PREDICTION OF INDICATORS OF TEAM DYNAMICS AND ATHLETE ENGAGEMENT AND WELL-BEING

Abstract

This study examined whether team sport athletes' perceptions of the coach-athlete relationship (CAR) demonstrate sufficient interdependence to justify aggregation at the team level and explored the implications of team-level CAR for team functioning and athlete outcomes. Participants were 157 youth athletes from 20 interscholastic teams in the Southern United States who completed validated questionnaires assessing the CAR, task and social cohesion and conflict, motivation, well-being (vitality and enjoyment), and dropout intentions. Intra-class correlation analyses supported aggregation of the CAR, task cohesion, and conflict variables to the team level. Multilevel regression analyses revealed that higher team-level CAR significantly predicted greater task cohesion and lower task and social conflict, both at the team and individual levels. At the individual level, team-level CAR also positively predicted athlete enjoyment and feelings of vitality but showed no significant associations with motivation types (autonomous, controlled) or dropout intentions. These findings provide initial empirical support for conceptualising the CAR as a shared team-level construct. Present results also highlight the importance of within-team consistency in the perceived quality of athletes' relationship with their coach in regard to variability in indicators of team dynamics and athlete well-being.

Key Words: Coach-Athlete Relationship; team dynamics; motivation; vitality; enjoyment; dropout

Introduction

Coaches play a pivotal role in shaping athletes' sport experiences (Davis et al., 2019). A growing body of research in sport psychology demonstrates that what coaches say and do directly influences athletes' affective and cognitive responses (Davis et al., 2018; Wekesser et al., 2021). Coach behaviours have been shown to predict athletes' enjoyment of their sport (Amorose & Anderson-Butcher, 2007; Curran et al., 2015), confidence (Vella et al., 2013), motivation (Keegan et al., 2010), perceived stress (Nicholls et al., 2016), and psychological well-being (McGee & DeFreese, 2019; Reinboth & Duda, 2006). Furthermore, research suggests coaches play a critical role in athletes' retention and dropout decisions (Back et al., 2022; Sarrazin et al., 2002) and reported burnout (Isoard-Gauthier et al., 2016).

A widely researched framework for understanding the interpersonal dynamics between coaches and athletes is Jowett's 3+1Cs model of the Coach-Athlete Relationship (CAR) (Jowett & Ntoumanis, 2004; Jowett, 2007). The 3+1Cs model conceptualises CAR quality through four interrelated components: Closeness (emotional connection and trust), Commitment (intention to maintain the relationship), Complementarity (cooperation and reciprocal interactions), and Co-orientation (shared understanding). The 3+1Cs have been consistently validated as meaningful indicators of relational quality in sport (Jowett & Ntoumanis, 2004; Jowett, 2009; Yang & Jowett, 2016), providing a conceptual lens through which to examine how relational factors contribute to athlete experiences.

Research has shown that high-quality CARs are consistently associated with a range of positive intrapersonal outcomes. For example, studies have linked CAR quality to intrinsic motivation and self-determined goal pursuit (Adie & Jowett, 2010;

Olympiou et al., 2008), enhanced motivation (Jowett et al., 2024), enjoyment and satisfaction (Felton & Jowett, 2015), psychological well-being, and reduced stress (Davis et al., 2019; Simons & Bird, 2023). Moreover, Jowett et al. (2024) found that higher CAR scores predicted increased basic psychological need satisfaction, while low-quality CARs have been linked to burnout (Isoard-Gautheur et al., 2016), emotional exhaustion, and reduced performance satisfaction (Wachsmuth et al., 2025). These findings reinforce that the CAR is not merely a social nicety but a relational process with significant implications for athletes' engagement, well-being, and retention.

While the CAR has primarily been examined at the dyadic level, there is growing recognition of its relevance within team contexts. Jowett (2017) proposed that coaches can foster a sense of "groupness" (the shared feeling of being a united team) through their relationships with individual athletes. Through effective CARs, athletes may better understand their own and others' roles, develop a shared commitment to team goals, and feel more integrated within the team as a whole. Studies suggest that high-quality CARs contribute not only to individual outcomes but also to indicators of group-level functioning such as team cohesion (Hampson & Jowett, 2014), collective efficacy (Fransen et al., 2015), and perceptions of the coach-created motivational climate manifested on the team (Olympiou et al., 2008). These findings indicate that CARs may have ripple effects across the team environment, influencing both social and task team dynamics.

Research has demonstrated that athletes within the same team can exhibit shared perceptions of key psychosocial variables, supporting the viability of conceptualising team-level constructs in sport contexts (Davis et al., 2018). For

example, cohesion has been operationalised and validated as a team-level construct based on evidence of significant within-team consensus (Eys et al., 2007; Eys et al., 2009). Similarly, team-level effects have been documented for collective efficacy, where aggregated athlete perceptions of team communication and leadership confidence predicted shared beliefs about team capability (Fransen et al., 2015). In addition, motivational climate has been validated as a shared team-level perception (Clancy et al., 2017; Gano-Overway, 2013), and emerging evidence suggests that conflict can also be conceptualised as a team-level phenomenon when assessed using aggregation indices (Tekleab et al., 2009).

Collectively, these findings provide a robust foundation for examining whether other relational constructs, such as the coach-athlete relationship (CAR), might similarly manifest as shared team-level perceptions among athletes. While evidence supports within-team interdependence for constructs like cohesion, collective efficacy, motivational climate, and conflict, no study to date has directly tested whether perceptions of the CAR significantly aggregate within team sport settings. Addressing this gap represents a critical step in extending relational theories of sport coaching beyond the traditional dyadic framework.

Although qualitative studies suggest that coaches often interact with their athletes as a unified group (Jowett & Timson-Katchis, 2005) and that athletes commonly describe shared expectations and relational experiences (Jowett & Frost, 2007), empirical testing of these shared perceptions has been limited. It remains unclear whether athletes' perceptions of the CAR converge sufficiently within teams to justify aggregation to the team level, or whether aggregated CAR meaningfully predicts indicators of team functioning and individual athlete outcomes.

To address these gaps, the present study aims to: 1) Examine whether athletes' perceptions of the CAR are interdependent among athletes within the same team, thereby justifying aggregation to the team level. 2) Test whether aggregated (team-level) CAR predicts team-level outcomes, including athletes' individual and shared perceptions of team functioning (i.e., task and social cohesion and task and social conflict). 3) Explore whether team-level CAR is associated with athlete-level motivation, well-being, and dropout intentions, providing insight into the broader consequences of coach-team (as a whole) relationships on athlete responses.

Method

Participants

A total of 157 high school athletes (12 male, 145 female; M age = 15.75 years, SD = 1.315, range = 14-19 years) from 20 interscholastic teams (basketball, soccer, softball, volleyball, tennis, lacrosse, swimming, and diving) at an independent school in the Southern United States participated in the study. Athletes trained with their teams for an average range of 5 to 9 hours per week (SD = 0.710, range = 1- 13+ hours), with a mean of 7.85 athletes recruited per team (SD = 4.464, range = 2-18).

Procedure

The study received ethical approval for the application (ERN_12-1558AP19) from the Science, Technology, Engineering and Mathematics Ethical Review Committee at the University of Birmingham. As this study was conducted within an independent high school in Georgia, USA, all participants were also treated according to the institution, state, and national educational and ethical guidelines regarding consent,

confidentiality, and anonymity of responses. For example, as some participants were deemed minors at the time of data collection, their consent to participate in the survey did not require parental consent as the survey met the requirements determined by the state and federal (45 CFR 46) ethical guidelines. This is because the survey scales contained questions tapping into the student-athletes' perceptions regarding aspects of normal schooling experience (e.g. their engagement in interscholastic sports) (U.S. Department of Health and Human Services, 2018).

The independent school required the researcher to be granted permission for data collection first by the athletic director and then by each team's head coach. Upon approval, the researcher scheduled to meet with each team at their convenience (prior to the start of practice/training), where the researcher discussed in person the purposes of the study, ethical considerations, anonymity, and participants' ability to withdraw their participation or responses up to ten days after completion the survey.

The athletes who participated did so by opening a QR code link (Qualtrics) (that was shared with them on a printed poster) to complete the survey online using a laptop, tablet or mobile device. The median time for survey completion was 17 minutes. Participants completed the survey individually, supervised by the lead researcher, in non-distracting conditions (e.g., in a reserved classroom).

Measures

All measures used in this study were drawn from validated and widely used instruments in the sports psychology literature.

Coach-Athlete Relationship: The Coach-Athlete Relationship Questionnaire (CART-Q; Jowett & Ntoumanis, 2004) assessed athletes' perceptions of closeness, commitment, and complementarity with their coach. The 11-item scale used a 7-point Likert format (1 = strongly disagree, 7 = strongly agree), and a composite score reflecting overall CAR quality was calculated. The CART-Q has demonstrated strong psychometric properties across a range of sport contexts. For example, Baldock et al. (2011) validated the CART-Q among youth athletes in team sports, supporting its factorial structure and internal consistency. Similarly, Yang and Jowett (2013) confirmed the scale's construct validity and reliability in a sample of adolescent athletes competing in various sports in China. More recently, Nascimento et al. (2024) demonstrated the CART-Q's applicability and cross-cultural validity among youth sport participants in Brazil, further supporting its use in diverse youth sport contexts. And Walter et al. (2025) validated the coach and athlete versions of the German CART-Q.

Team Functioning Variables

Cohesion: The 18-item Youth Sport Environment Questionnaire (YSEQ; Eys et al., 2009) measured task and social cohesion. Example items include: "I am happy with my team's level of desire to win" (task) and "I spend time with my teammates" (social). The psychometric reliability and validity of the YSEQ are well documented. For example, Bessa et al. (2024) validated the YSEQ in a sample of youth athletes participating in competitive team sports, confirming its two-factor structure (task and social cohesion) and demonstrating strong internal consistency across different age groups.

Conflict: The 14-item Group Conflict Questionnaire (GCQ; Paradis et al., 2014) assessed task conflict and social conflict. Example items include: “Strong disagreements during practice disrupt our progress” (task) and “Personal friction leads to confrontations at social gatherings” (social). Responses were indicated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The GCQ has demonstrated consistent reliability in youth sport contexts. For example, Nascimento Junior et al. (2020) validated the GCQ in a sample of adolescent athletes competing in organised team sports, finding strong internal consistency and supporting its two-factor structure for assessing task and social conflict.

Individual Athlete Outcomes

Motivation: The Behavioural Regulation in Sport Questionnaire (BRSQ; Lonsdale et al., 2008) assessed athletes’ motivation types (intrinsic, integrated, identified, introjected, external, and amotivation). Items were rated on a 7-point scale (1 = not at all true, 7 = very true). Composite scores were created for autonomous motivation (e.g., combining intrinsic and identified regulation items) and controlled motivation (e.g., combining introjected and external regulation items) in line with previous research. Jowett et al. (2013) used the BRSQ to assess motivational profiles in adolescent athletes, demonstrating strong internal consistency and predictive validity for both autonomous and controlled motivation composites. Langan et al. (2016) employed the BRSQ in a large sample of youth sport participants across individual and team sports, confirming the scale’s suitability for capturing self-determined and externally regulated forms of motivation in young athletes.

Vitality: The Subjective Vitality Scale (SVS; Ryan & Frederick, 1997) included five items assessing energy and aliveness (e.g., “I looked forward to each day”), rated on a 5-point Likert scale. Previous studies have confirmed its suitability with youth athletes. For example, Salama-Younes (2011) demonstrated good reliability and validity of the SVS when administered a sample of young athletes participating in school-based sport programs. Martinent and Decret (2015) used the SVS to assess feelings of vitality among adolescent elite canoeists, finding strong associations with sport-related coping strategies. In addition, Moreno-Murcia et al. (2012) validated the SVS in a sample of Spanish youth athletes engaged in organised sports, confirming its relevance for measuring well-being in competitive contexts in young sport participants.

Enjoyment: The Interest/Enjoyment subscale from the Intrinsic Motivation Inventory (IMI; Ryan & Connell, 1989) measured enjoyment across four items (e.g., “I enjoyed the activities”). Responses were provided on a 7-point Likert scale (1 = not at all true, 7 = very true). Previous research has demonstrated the psychometric properties of the Interest/Enjoyment subscale in sport contexts. For example, McAuley et al. (1989) confirmed the reliability and construct validity of the subscale in an adult exercise setting, providing early evidence of its suitability for assessing intrinsic motivation in physical activity. More recently, Schüller et al. (2023) validated the scale among adolescent athletes across multiple team and individual sports, supporting its use for measuring sport-specific enjoyment in youth populations.

Dropout Intentions: Four items adapted from Sarrazin et al. (2002) and Quested et al. (2013) measured intentions to continue or discontinue sport participation (e.g., “I intend to drop out of my sport at the end of this season”).

Responses were provided on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). This scale has been validated in youth sport settings. For example, Fabra et al. (2021) examined dropout intentions among adolescent athletes participating in competitive sports, demonstrating acceptable reliability and predictive validity of the scale. More recently, Fabra et al. (2023) confirmed the scale's factorial validity and internal consistency in a large sample of Spanish youth athletes from multiple sport disciplines.

Data analysis

To test the study hypotheses, a series of statistical analyses were conducted using IBM SPSS Statistics 25. These included the conducting of preliminary analyses (e.g., management of missing data and outliers), calculation of descriptive statistics and internal reliability for each scale, as well as determination of the correlations between the targeted variables.

In addition to these analyses, a set of assumptions was tested to determine whether athletes' ratings of the quality of the coach-athlete relationship (CAR) and targeted team-related variables (i.e., task/social cohesion and conflict) could be aggregated. Specifically, intra-team agreement, interrater reliability, and between-team discrimination were assessed. Intra-team agreement was evaluated using the intraclass correlation coefficient (ICC1; Bliese, 2000). Additionally, ICC2 (Bliese, 2000) was used to assess the reliability of team-level means, while one-way analysis of variance (ANOVA) was employed to examine differences between teams. The following criteria were used to determine acceptable aggregation: ICC1 values above .05 (LeBreton & Senter, 2008) and ICC2 values above .70 (Bliese, 2000).

Once these assumptions were verified, regression analyses were performed to examine whether team-level perceptions of the Coach-Athlete Relationship (CAR) predicted athletes' perceptions of their team's functioning at both the individual and team levels. Specifically, CAR was tested as a predictor of task and social cohesion and task and social conflict. Regression analyses were also conducted to investigate the implications of the aggregated (team-level) CAR for athletes' (individual-level) motivation, well-being and intentions to drop out.

Results

Preliminary analyses

An analysis and treatment of missing data were carried out before proceeding with the main analyses. Outliers were also examined by calculating Z-scores, considering values exceeding ± 3.29 as extreme (Tabachnick & Fidell, 2013). Based on this criterion, three participants were excluded from the sample.

Testing assumptions to justify the aggregation of data

In regard to the first aim of the study, the Coach-Athlete Relationship (CAR) demonstrated adequate justification for aggregation at the team level. The ANOVA results indicated significant differences among teams in CAR scores ($F(19,135) = 4.86, p < .001$), suggesting meaningful between-team variability. Additionally, the intraclass correlation coefficient ICC (1) was .27, which indicated that 27% of the variance of the coach-athlete relationship was explained by the clustering structure (i.e., team). This suggests a moderate level of intra-team agreement. Furthermore, the ICC (2) value was .79, confirming high interrater reliability and supporting the use of aggregated team-level CAR scores in subsequent analyses.

In terms of the secondary aims of this study, we first examined whether the team-related variables targeted could be aggregated. For task cohesion, the ANOVA results indicated significant differences among teams ($F(19,125) = 5.07, p < .001$), suggesting meaningful between-team variability. Additionally, the ICC(1) value was .28, which indicated that 28% of the variance in task cohesion was explained by team membership, reflecting a moderate level of intra-team agreement. Furthermore, the ICC(2) value was .80, demonstrating high interrater reliability and supporting the aggregation of task cohesion at the team level.

In contrast, the results for social cohesion did not justify aggregation. The ANOVA results showed non-significant differences among teams ($F(19,125) = 1.08, p = .38$). The ICC(1) value was .01, meaning that only 1% of the variance in social cohesion was attributable to team membership, while most of the variability existed within teams. Furthermore, the ICC(2) value was .07, indicating extremely poor reliability of team-level averages.

The assumption tests supported the aggregation of task conflict and social conflict at the team level. The ANOVA results indicated significant differences among teams in task conflict ($F(19,129) = 3.61, p < .001$) and social conflict ($F(19,128) = 5.08, p < .001$), suggesting notable between-team variability in both variables. Moreover, the ICC(1) values for both variables exceeded the recommended cut-off of .05, indicating the presence of intra-team agreement in the perception of both task and social conflict. Specifically, the ICC(1) values were .20 for task conflict and .28 for social conflict, indicating that 20% and 28% of the variance, respectively, was explained by team membership. Finally, the reliability of the team-level means was satisfactory, with ICC(2) values of .72 for task conflict and .80 for social conflict.

Overall, these findings indicate that the CAR, task cohesion, task conflict, and social conflict meet the criteria for reliable aggregation at the team level, as they exhibited significant between-team discrimination, moderate-to-high intra-team agreement, and acceptable reliability indices. In contrast, social cohesion did not satisfy the required thresholds for aggregation.

Descriptive statistics and inter-correlations between variables

Descriptive statistics, reliability coefficients, and tests of normality for all study variables are presented in Table 1. All scales demonstrated adequate internal consistency, with Cronbach's alpha values ranging from .83 to .95.

With respect to normality, most variables showed skewness and kurtosis values within the acceptable range of -1.5 to 1.5 (Forero et al., 2009), indicating no substantial deviations from normality. Some variables, such as autonomous motivation, and dropout intention, slightly exceeded this range. However, these values remained within the broader acceptable limits of -2 to 2 (Bandalos & Finney, 2010; Muthén & Kaplan, 1992).

In terms of mean scores, the teams reported moderately high perceptions of the coach-athlete relationship and task cohesion, along with low levels of task conflict and social conflict. Such values reflected generally positive team functioning.

At the individual level, athletes reported high levels of social cohesion, autonomous motivation, and enjoyment, as well as moderate-to-high levels of task cohesion and vitality. Task and social conflict, as well as dropout intentions, were rated low, while controlled motivation was slightly below moderate. Taken together, these scores suggest an overall adaptive psychological profile among participants.

Table 1

Descriptive statistics and reliabilities for all variables of the multi-level analysis of the coach-athlete relationship

	<i>Range</i>	<i>M</i>	<i>SD</i>	α	<i>Skewness</i>	<i>Kurtosis</i>
Coach-Athlete Relationship team	1-7	5.24	0.74	-	-0.82	0.81
Task conflict team	1-5	1.88	0.53	-	1.14	0.86
Social conflict team	1-5	1.68	0.55	-	1.14	0.74
Task cohesion team	1-5	3.72	0.58	-	-0.76	0.53
Coach-Athlete Relationship individual	1-7	5.30	1.09	.93	-0.74	-0.19
Task conflict individual	1-5	1.89	0.89	.91	1.04	0.46
Social conflict individual	1-5	1.70	0.84	.92	1.27	0.60
Task cohesion individual	1-5	3.73	0.84	.89	-0.79	0.54
Social cohesion individual	1-5	3.99	0.82	.91	-0.88	0.77
Autonomous motivation	1-5	4.48	0.56	.88	-1.36	1.72
Controlled motivation	1-5	2.83	1.05	.90	0.01	-0.64
Vitality	1-5	3.51	1.10	.93	-0.64	-0.27
Enjoyment	1-5	3.96	0.86	.83	-1.01	0.75
Dropout intention	1-5	2.38	0.61	.95	1.63	1.66

Table 2 shows the bivariate correlations between the key variables. The coach-athlete relationship at the team level was positively correlated with task cohesion and negatively correlated with task conflict and social conflict at the team level. Meanwhile, team-level CAR was positively associated with individual athletes'

reported enjoyment and vitality but showed no significant associations with autonomous or controlled motivation, nor with dropout intention at the individual level.

Task and social conflict at the team level were highly correlated with each other, and both were negatively associated with athletes' autonomous motivation. However, neither task nor social conflict showed significant associations with well-being variables. Additionally, social conflict at the team level was positively associated with athletes' intentions to drop out. Regarding task cohesion at the team level, no significant correlations were found with motivational or well-being variables at the individual level.

With respect to the variables measured at the individual level, autonomous motivation was positively related to both vitality and enjoyment and negatively related to dropout intention. In contrast, controlled motivation showed the opposite pattern, being positively associated with dropout intention and negatively associated with vitality and enjoyment. Finally, a significant negative correlation was found between enjoyment and dropout intention.

Table 2

Bivariate correlations between variables

	1	2	3	4	5	6	7	8
1. Coach-Athlete Relationship team	-							
2. Task conflict team	-.35**	-						
3. Social conflict team	-.41**	.94**	-					
4. Task cohesion team	.55**	-.02	-.03	-				

5. Autonomous motivation	.02	-.18*	-.17*	.03	-			
6. Controlled motivation	-.06	.04	.04	-.01	-.31**	-		
7. Vitality	.18*	-.04	-.03	.10	.21**	-.20**	-	
8. Enjoyment	.27**	-.02	-.06	.05	.48**	-.23**	.45**	-
9. Dropout intention	-.13	.11	.17*	.04	-.41**	.25**	-.09	-.34**

Note. * $p < .05$. ** $p < .01$.

Team-level CAR predicting team-level perceptions of team functioning

Regarding within-level effects (Table 3), team-level CAR negatively predicted team perceptions of task conflict ($B = -.24$, $SE = .05$, $t(df) = -4.41$, $p < .001$, 95% $CI [-.13, -.01]$) and social conflict ($B = -.28$, $SE = .06$, $t(df) = -5.03$, $p < .001$, 95% $CI [-.39, -.17]$). Conversely, CAR positively predicted task cohesion ($B = .37$, $SE = .06$, $t(df) = 6.77$, $p < .001$, 95% $CI [.26, .48]$).

Table 3

Team-level Coach-Athlete Relationship (CAR) predicting team-level perceptions of team functioning

Outcome variable	R^2	B	SE	β	$t(df)$	p	95% CI
Task conflict	.11	-.24	.05	-.33	-4.41	$p < .001$	$[-.13, -.01]$
Social conflict	.14	-.28	.06	-.38	-5.03	$p < .001$	$[-.39, -.17]$

Task cohesion	.23	.37	.06	.48	6.77	p < .001	[.26, .48]
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Note. The predictor in all regression models is team-level Coach-Athlete Relationship (CAR). *B* represents unstandardised regression coefficients. *SE* = Standard Error. β represents standardised regression coefficients. 95% *CI* = Confidence Interval.

Team-level CAR predicting individual-level perceptions of team functioning

As Table 4 shows, the results indicated that the cross-level effect of CAR (team level) on athlete individual level perceptions of team functioning were statistically significant for task and social conflict and task cohesion. Specifically, CAR at team level negatively predicted individual perceptions of task conflict ($B = -.28$, $SE = .14$, $t(df) = -2.09$, $p < .05$, 95% *CI* $[-.56, -.01]$) and social conflict ($B = -.30$, $SE = .13$, $t(df) = -2.26$, $p < .05$, 95% *CI* $[-.57, -.03]$), while it positively predicted individual perceptions of task cohesion ($B = .27$, $SE = .13$, $t(df) = 2.15$, $p < .05$, 95% *CI* $[.01, .53]$). However, no significant cross-level effect was found for social cohesion ($B = .14$, $SE = .09$, $t(df) = 1.39$, $p > .05$, 95% *CI* $[-.06, .34]$).

Table 4

Team-level Coach-Athlete Relationship (CAR) predicting individual-level perceptions of team functioning

Outcome variable	<i>B</i>	<i>SE</i>	<i>t(df)</i>	<i>p</i>	95% <i>CI</i>
Task conflict	-.28	.14	-2.09	.04	$[-.56, -.01]$
Social conflict	-.30	.13	-2.26	.03	$[-.57, -.03]$

Task cohesion	.27	.13	2.15	.04	[.01, .53]
Social cohesion	.14	.09	1.39	.17	[−.06, .34]

Note. The predictor in all regression models is team-level Coach-Athlete Relationship (CAR). *B* represents unstandardized regression coefficients. *SE* = Standard Error. 95% *CI* = Confidence Interval.

Team-level CAR predicting individual-level perceptions of motivation, well-being and intentions to dropout

Table 5 presents the results of regression models examining the associations between team-level CAR and individual-level outcomes related to athletes' motivation, well-being, and dropout intentions. Specifically, team-level CAR positively predicted athletes' perceptions of vitality ($B = .34$, $SE = .16$, $t(df) = 2.04$, $p < .05$, 95% CI [.01, .66]) and enjoyment ($B = .38$, $SE = .13$, $t(df) = 2.97$, $p < .05$, 95% CI [.13, .63]). However, no significant effects were found for autonomous motivation ($B = .06$, $SE = .11$, $t(df) = 0.56$, $p > .05$, 95% CI [−.17, .29]), controlled motivation ($B = −.14$, $SE = .17$, $t(df) = −0.87$, $p > .05$, 95% CI [−.49, .21]), or intentions to dropout ($B = −.16$, $SE = .12$, $t(df) = −1.35$, $p > .05$, 95% CI [−.39, .08]).

Table 5

Team-level Coach-Athlete Relationship (CAR) predicting athlete outcomes

Outcome variable	<i>B</i>	<i>SE</i>	<i>t(df)</i>	<i>p</i>	95% <i>CI</i>
Autonomous motivation	.06	.11	0.56	.58	[−.17, .29]
Controlled motivation	−.14	.17	−0.87	.39	[−.49, .21]

Vitality	.34	.16	2.04	.04	[.01, .66]
Enjoyment	.38	.13	2.97	.01	[.13, .63]
Dropout intentions	-.16	.12	-1.35	.19	[-.39, .08]

Note. The predictor in all regression models is team-level Coach-Athlete Relationship (CAR). *B* represents unstandardized regression coefficients. *SE* = Standard Error. 95% *CI* = Confidence Interval.

Discussion

The present study examined whether perceptions of the coach-athlete relationship (CAR) in youth sport teams are sufficiently consistent across athletes (interdependence within teams) to justify aggregation to the team level, thereby supporting the conceptualisation of team-level CAR. A secondary aim was to investigate whether these shared relational perceptions were associated with team functioning (at both the individual and team level) and athlete outcomes such as motivation, well-being, and dropout intentions.

In regard to the first central aim of this study, the findings offer preliminary support for both the statistical and conceptual validity of a team-level CAR. Athletes within teams demonstrated moderate-to-high agreement in their composite ratings of the coach-athlete relationship, which integrated perceptions of closeness, commitment, and complementarity. These levels of agreement met established thresholds for within-group consensus, suggesting that athletes do not experience the CAR solely as a dyadic, individualised phenomenon but also as a socially constructed and shared reality shaped by collective team dynamics.

With respect to the second aim of this study, higher team-level CAR was associated with greater team-level task cohesion and lower levels of both task and social conflict. These findings suggest that within-team, interdependent perceptions of a high-quality coach-athlete relationship may foster a more coordinated and harmonious team climate. At the individual level, athletes embedded within high-CAR teams also reported fewer interpersonal tensions and a stronger sense of teamwork. These results indicate that shared relational climates may shape both collective and personal experiences within the team environment.

Aggregated perceptions of the CAR did not significantly predict social cohesion at either the team or individual level. This aligns with previous findings that coach behaviours tend to be more strongly associated with task cohesion than social cohesion (e.g., Jowett & Chaundy, 2004; Smith et al., 2013). As noted in Chapter 1, Carron et al. (2002) and McLaren et al. (2017) argue that social cohesion is more heavily influenced by peer-to-peer interactions, informal bonding, and non-sport settings. This may be particularly relevant in the current study, as all participants attended the same independent high school and likely formed friendships and peer relationships beyond the sporting context.

A possible explanation for the absence of a significant relationship between team-level CAR and social cohesion may relate to the social ecology of school-based teams. Athletes in this context interact across multiple settings (e.g., classes, lunch periods, extracurricular activities), which may dilute or override the influence of coach behaviour on perceived team togetherness. It may also reflect coaches' varied emphasis on task- versus socially oriented coaching strategies. Coaches who primarily focus on performance or discipline may unintentionally neglect the

facilitation of social bonding between athletes. Furthermore, the finding that athletes' ratings of social cohesion did not comprise a shared team-level construct further supports this point, reinforcing the idea that social cohesion may not emerge uniformly across athletes in the same team and may not be strongly shaped by coach behaviour.

In addition to the lack of predictive association, the findings also indicated that social cohesion did not exhibit sufficient within-team agreement to justify aggregation as a team-level construct. This may suggest that social cohesion is more distinctively experienced by athletes, shaped by personal friendships, informal group dynamics, or social hierarchies that do not manifest consistently across all team members. Unlike task cohesion or collective efficacy, which often rely on structured collaboration and shared goals, social cohesion may develop unevenly across different subgroups within a team. The present findings support this interpretation, reinforcing previous research suggesting that social cohesion is often contextually diffuse and more difficult to capture as a unified, team-level perception (Carron et al., 2002; Eys et al., 2009).

The non-significant association observed between team-level CAR and social cohesion also aligns with theoretical arguments that peer interactions and informal social bonding are more likely to influence social closeness and friendship among teammates than coach behaviours (Carron et al., 2002; McLaren et al., 2017). While coaches may indirectly contribute to the team's social atmosphere, their primary influence may lie in fostering task coordination, collective goal pursuit, and minimising sources of conflict.

Athletes embedded within teams characterised by high team-level CAR reported lower levels of interpersonal tensions and more effective teamwork. These findings suggest that, beyond the quality of individual coach-athlete dyads, the broader relational climate fostered by the coach has implications for how athletes experience their team environment. In teams where the coach is perceived positively and consistently across members, athletes appear to benefit not only from seeing their team as a more cohesive unit but also from an enhanced sense of interpersonal harmony and support within the team.

In terms of the prediction of individual athlete outcomes, team-level CAR is significantly and positively related to athletes' enjoyment and vitality (both key indicators of well-being). These findings parallel previous dyadic-level CAR research, where stronger coach-athlete relationships predicted greater athlete enjoyment and vitality (e.g., Adie & Jowett, 2010; Felton & Jowett, 2015). Extending this pattern to the team level suggests that consistent, high-quality relational experiences with the coach may underpin key indicators of psychological well-being across the team. No significant direct effects were found between team-level CAR and athletes' reported motivation (autonomous or controlled) or dropout intentions. This may indicate that the influence of shared relational perceptions on individual athlete motivation and desire to quit their team operates indirectly, potentially through mediating team processes such as cohesion and conflict, or individual processes such as basic psychological need satisfaction (Gonzalez-Ponce et al., 2018; Isoard-Gauthier et al., 2016; Ryan & Deci, 2000).

This study is among the first to empirically test the conceptualisation of CAR as a team-level phenomenon in youth sport. Although scholars have long proposed

that coach-athlete dynamics might shape team processes more broadly (Jowett, 2017; Jowett & Slade, 2021), few studies have directly assessed this proposition using multilevel designs. The current findings help fill this gap, showing that shared relational perceptions not only relate to collective outcomes but also meaningfully shape how athletes experience interactions within their teams. In doing so, this work bridges interpersonal and team-level perspectives. It reinforces the idea that coaches influence team functioning not only through their behaviours toward individuals, but also through the relational tone they set across the team (Davis et al., 2019; Fransen et al., 2020).

Importantly, the results underscore that it is not solely the quality of isolated dyadic relationships that matters, but the degree of relational consistency across the team. In teams where athletes hold similarly positive perceptions of their coach, the relational climate appears more coherent and functional. This has important implications for coaching theory and practice, inviting greater attention to how coaches manage relationships collectively (as well as individually) and the potential systemic impact of their relational behaviours.

Practical Implications

The present findings have implications for coaching practice and professional development. Coaches may not always be aware of the extent to which athletes notice and respond to patterns of relational consistency across a team. When some athletes feel supported, valued, or understood by the coach while others do not, this inconsistency can lead to a fragmented relational climate. Such disparities may undermine perceptions of fairness (Lorimer & Jowett, 2009), decrease cohesion

(Jowett & Chaundy, 2004), and increase interpersonal tension or intra-team conflict (Gonzalez-Ponce et al., 2018).

To address these issues, coaches should be encouraged to build consistently high-quality relationships with all team members, not only those with whom they connect most easily. Prior work has shown that when athletes perceive equitable treatment and emotional support across the team, it fosters a more cohesive and psychologically safe environment (Fransen et al., 2020; Gosai et al., 2023). Ensuring that all athletes feel respected and included can reduce relational divides and contribute to a shared sense of belonging. Furthermore, clear communication around roles and expectations is essential in reducing role ambiguity and promoting alignment within the team (Leo et al., 2015; Smith et al., 2013), and potentially shared perceptions of a positive coach-athlete relationship. Equally important is the development of a unified team identity and a focus on shared goals, which are known to underpin task cohesion and collective efficacy (Carron et al., 2002; Eys et al., 2009).

Beyond coaching practice, these findings also have implications for how clubs, schools, and sport organisations evaluate and support coaches. Incorporating team-level relational assessments, such as aggregated scores on the Coach-Athlete Relationship Questionnaire (CART-Q), into feedback and development frameworks may provide a more holistic view of a coach's impact. Rather than relying solely on individual athlete feedback or performance outcomes, evaluating the consistency and quality of relational experiences across the team could help identify relational strengths and areas for growth (Davis et al., 2019; Jowett & Poczwardowski, 2007).

Such approaches may contribute to more relationally attuned coaching practices and ultimately support both team functioning and athlete well-being.

Limitations and Future Research Directions

Several limitations of this study provide important directions for future research. First, the sample consisted predominantly of female athletes from a single independent school in the United States, limiting the findings' generalisability. Prior research has shown that gender, cultural background, team context and competitive level can shape both coach-athlete relationship quality and team dynamics (Jowett & Nezlek, 2012; Lorimer & Jowett, 2009). To test the existence of and boundary conditions of team-level CAR, future studies should replicate this work across more diverse sporting populations, including male and mixed-gender teams, culturally varied groups, and teams from both elite and recreational levels (Fransen et al., 2020; Jowett et al., 2024).

Second, the cross-sectional design restricts causal interpretation. While associations were observed between team-level CAR and various team and individual outcomes, it is plausible that teams with high cohesion and low conflict may retrospectively evaluate their coach more positively. Longitudinal designs are therefore essential to examine how shared CAR perceptions evolve over time, and to clarify the directionality and mediating mechanisms involved in these relationships (Felton & Jowett, 2017; Standage & Ryan, 2020; Tofighi & MacKinnon, 2011). Such work could illuminate whether improvements in team functioning mediate the impact of coach behaviour on athlete motivation, well-being, or retention. In particular, future studies should investigate whether the satisfaction of athletes' basic psychological

needs for autonomy, competence, and relatedness mediates the relationships of interest in this study, given their centrality in self-determination theory and athlete development (Ryan & Deci, 2000; Standage & Ryan, 2020).

Third, no significant association was found between team-level CAR and social cohesion (at the team- or individual-level). Beyond the points made above when discussing this finding, these results may also reflect the limitations of the measurement approach, which may not have captured the informal, peer-driven nature of social bonding distinct from task-related processes (Carron et al., 2002; McLaren et al., 2017). Social cohesion may be more strongly shaped by athlete-to-athlete interactions and shared experiences outside the coach's purview (Eys et al., 2009). Future research should explore alternative, ecologically sensitive measures and qualitative methodologies to understand how social bonds emerge within youth sport teams and the extent to which coaches can influence them indirectly.

A further limitation concerns the measurement of the coach-athlete relationship from the perspective of athletes only (i.e., considered an individual-level variable only). While the CART-Q provides robust insight into direct athlete perceptions of closeness, commitment, and complementarity, the 3+1Cs model also highlights the importance of coach-rated and meta-perspectives (Jowett, 2007). These additional perspectives are critical for capturing relational reciprocity and co-orientation; that is, the extent to which coaches and athletes hold shared understandings about their relationship. By omitting coach perspectives and meta-perceptions (e.g., how athletes believe their coach sees them), the present study was unable to examine the degree of perceptual alignment within teams, which may have implications for the strength or clarity of aggregated team-level constructs and their

prediction of team-related outcomes. Future research would benefit from employing designs that integrate both coach and athlete data, as well as qualitative methods that explore how each party interprets relational experiences and how these meanings converge or diverge across the team.

In addition to addressing these limitations, further research is needed to unpack the specific coach behaviours and leadership strategies that support relational consistency across a team. Attributes such as relational leadership, emotional intelligence, and fairness are frequently highlighted as important (Fransen et al., 2020; Gosai et al., 2023). Based on the literature, we would expect the motivational climate created by the coach (whether operationalised through AGT, SDT, or the integrated Empowering/Disempowering framework) to be predictive of individual- and team-level CAR. However, there remains limited understanding of how these theoretical approaches translate into shared positive perceptions among athletes. Mechanisms such as equitable treatment, role clarity, and clear communication likely play a central role in fostering a cohesive and positively regarded relational climate.

Finally, while the present study focused on team-level CAR derived from individual ratings, there is growing interest in the coach-team relationship (CTR) as a distinct relational construct. Future work should investigate how coaches relate to the team as a unified entity, above and beyond individual dyads, by exploring the characteristics, outcomes, and antecedents of both positive and negative CTRs (Jowett, 2017; Jowett & Slade, 2021). Qualitative methods, such as interviews and focus groups, are particularly well-suited to this endeavour, as they can reveal how athletes and coaches interpret consistency, fairness, connection, and alignment with

team values in practice (Davis et al., 2019; Jowett & Timson-Katchis, 2005). The ongoing qualitative strand of this research programme will contribute to this line of inquiry by capturing how youth sport participants characterise effective and ineffective CTRs in their own words (Chapter Four). Additionally, Chapters Five and Six provide in-depth information regarding coaches' and athletes' views on what contributes to a positive or negative coach-team relationship and the perceived consequences for the team, the athletes, and the coach.

Conclusion

This study offers novel empirical evidence that the coach-athlete relationship (CAR) can be meaningfully conceptualised as a shared team-level construct in youth sport. When athletes within a team hold consistently positive views of their coach, this relational coherence appears to support more cohesive, coordinated, and psychologically safe team environments. In addition to shaping team-level dynamics such as task cohesion and conflict reduction, team-level CAR also influences how athletes experience day-to-day interactions within their teams, enhancing enjoyment, vitality, and perceptions of teamwork.

By moving beyond the traditional focus on dyadic relationships, these findings highlight the coach's role not only as a one-to-one relational partner but as a key architect of the team's overall relational climate. In this light, relational consistency becomes a powerful ingredient in cultivating functional, inclusive, and high-performing teams. Coaches who demonstrate fairness, consistency, and emotional engagement across the full squad may contribute not only to individual development but also to a stronger sense of collective identity and purpose.

Recognising the shared and systemic nature of coaching relationships opens new avenues for coaching practice, evaluation, and future research. Understanding how team-level relational dynamics operate and how they intersect with motivational, cultural, and contextual variables may be essential to advancing athlete well-being and team success in sport.

CHAPTER THREE

THESIS METHODOLOGY

Introduction to the Research Design & Methodology

The purpose of this chapter is to describe the overall research design and methodological procedures adopted for this PhD project. The chapter is organised into two parts. Part One outlines the overarching research design, philosophical foundations, and rationale for using a multi-method research strategy (see Fig. 3). Part Two details the qualitative methodology used in Chapters 4, 5, and 6.

To ensure coherence across the project and to deepen the researcher's engagement with the theoretical and methodological frameworks under consideration (Vagenas et al., 2018), this thesis adopted a multi-method approach. This decision reflects the critical importance of aligning research design with the literature review, the nature of the research questions, and the philosophical assumptions, experiences, and methodological preferences of the researcher (Creswell & Creswell, 2017). It is important to clarify that a multi-method design is distinct from a mixed-methods design. Although both approaches integrate multiple methodologies, a multi-method design typically involves the use of two or more discrete research approaches (quantitative, qualitative, or mixed) across different components of an over-arching project. In contrast, mixed-methods research, as a methodology, is defined by an intentional integration of quantitative and qualitative approaches within a single study or set of studies, underpinned by specific philosophical assumptions. It is argued that the use of mixed-methods can provide more comprehensive insights into the research problem (Creswell & Plano-Clark, 2007; Johnson et al., 2007).



Figure 3. A Framework for Research. The interconnection of worldviews, design, and research methods. *Source. Adapted from Creswell and Creswell (2017)*

Part One

Research Approach

Creswell and Creswell (2017) suggest that the research design is positioned according to the research questions, which are formed through the researcher's worldview. This section details this project's research approach first through an in-depth understanding of philosophical assumptions (researcher's worldview), followed by research design (method for collecting and analysing data), and then the research methods employed (how data was collected and analysed).

Philosophical Worldviews and Researcher Positionality

Before detailing the philosophical worldviews that informed this project, it is important to acknowledge the diverse and sometimes overlapping terminology used across research traditions. Terms such as "philosophical assumptions" (Creswell, 2014),

“paradigms” (Kuhn, 1970; Lincoln et al., 2011), “meta-theories” (Allana & Clark, 2018), “worldviews” (Guba, 1990), “researcher beliefs” (Lather, 1986), and “epistemologies and ontologies” (Crotty, 1998) all reflect a shared premise that researchers bring a set of beliefs to their work that guide their approach to inquiry. Creswell and Creswell (2017, p. 30) define philosophical assumptions as “a general philosophical orientation about the world and the nature of research that a researcher brings to a study.” This framing suggests that worldview is not simply an abstract idea but an organising lens that influences every aspect of research design, from how and which questions are posed to how data are analysed and interpreted.

Yet, the ability to recognise and articulate one’s own worldview is often overlooked (especially by novice researchers) despite its centrality to research quality and ethical responsibility (Nind et al., 2020; Savin-Baden & Major, 2023). Nind et al. (2020) inform that developing a high-quality positionality statement requires time, deep reflection, and critical awareness, skills that not only shape better research but foster personal and professional growth. Savin-Baden and Major (2023) further note that strong positionality includes the articulation of a researcher’s philosophical, personal, and theoretical beliefs, and a transparent account of how these may influence the research process. While positionality is often foregrounded in qualitative work, its relevance extends to all forms of research. Scholars such as Jafar (2018) and Hampton, Reeping, and Ozkan (2021) have argued that even quantitative researchers benefit from reflecting on how their identities and values shape their work. The assumption that all researchers are inherently critical thinkers implies a level of educational privilege and opportunity that is not universally accessible.

Fostering critical thinking through reflective practice must be intentional, cultivated over time, and understood as essential to producing high-quality, ethical research.

Guba (1990) describes worldview as “a basic set of beliefs that guide action” (p. 17). Understanding where these beliefs come from invites a deeper, more personal level of reflection. Heidegger’s notion of authentic historicity, as interpreted by Fynsk (2019), suggests that our perceptions of the past shape our sense of self in the present and that this awareness informs how we engage with the world. This process is central to how worldviews form: through accumulated life experiences, cultural and social interactions, and embedded professional norms (Blodgett et al., 2015). For researchers working in diverse, multicultural settings (including sport and exercise psychology), this kind of self-awareness supports more inclusive, transparent, and context-sensitive research (Ryba et al., 2023). Acknowledging multicultural influences also encourages researchers to reflect more honestly on the lenses they bring to their work, enhancing the interpretive depth and integrity of their analyses.

In my own work, my worldview has been shaped by years of involvement in sport as both an athlete and a coach within the context of football/soccer. I competed at academy and university levels as an athlete and later coached youth and senior interscholastic football teams. Alongside my sporting experiences, my work as an applied practitioner in sport and performance psychology has further influenced my understanding of group dynamics, leadership, and relational processes in sport settings.

These experiences, combined with academic training and lived experiences across two cultural contexts (the United Kingdom and the United States), have

significantly informed how I perceive and interpret interpersonal and group functioning. As I explored the concept of the coach-team relationship (CTR) in this research, I found that my assumptions about connection, communication, and group cohesion were deeply rooted in my direct experiences within team sport environments.

My ongoing engagement with both British and American sporting cultures provided me with dual vantage points: one as an insider with embedded cultural knowledge of the school and sport communities I studied, and one as an outsider capable of critically recognising implicit cultural assumptions and team dynamics through a more detached, reflexive lens.

This dual emic/etic perspective became a valuable epistemological stance. As Kusow (2003) argues, the insider-outsider continuum allows researchers to present more nuanced and balanced interpretations of social realities, particularly in research contexts involving identity, power, and cultural dynamics. As a counsellor, coach, and mental performance consultant, my role within the school positioned me as a trusted faculty member with strong relational ties to the athletes and the coaches. This brought several advantages, including easier access to participants, greater trust and rapport, and a deeper understanding of the cultural nuances of sport in this setting (Holmes, 2020). At the same time, I remained aware of potential disadvantages, such as the risk of bias, role confusion, or assuming too much shared understanding. Ongoing reflexive practice and supervision helped me navigate these tensions.

The role of worldview in research is often broken down across five domains: ontology (the nature of reality), epistemology (how knowledge is constructed), axiology (the role of values), methodology (approaches to inquiry), and rhetoric

(language use) (Denzin & Lincoln, 2011; Mertens & Tarsilla, 2015). Within these domains, four dominant worldviews are often associated with different research traditions: postpositivism, constructivism, transformative, and pragmatism (Creswell & Creswell, 2017).

Each of these worldviews informed my thinking at different stages of the research process. Further elaboration on each worldview and why it was or was not applied in this thesis is helpful for contextual clarity (Bryman, 2016).

The postpositivist worldview, also referred to as positivist/postpositivist, is closely associated with the quantitative scientific method. This perspective assumes that knowledge is derived from objective measurement and empirical testing. It typically employs a reductionist approach, beginning with an existing theory and systematically testing hypotheses to confirm or refine theoretical assumptions. I adopted this worldview in Study 1, where the goal was to examine whether perceptions of the coach-athlete relationship (CAR) aggregated at the team level (and then are predictive of particular team and individual athlete processes and outcomes) warranted a theory-testing design aligned with postpositivist assumptions. However, its limitations in capturing lived experience and contextual nuance made it insufficient for addressing the more complex, relational phenomena investigated in the qualitative chapters four, five, and six.

Constructivism, also known as social constructivism or interpretivism, is rooted in the belief that individuals construct meaning through their social, historical, and cultural interactions. Rather than testing hypotheses, constructivist research explores participant perspectives and co-creates knowledge. I applied this worldview in chapters four, five and six, which sought to explore coaches' and athletes'

interpretations of the coach-team relationship (CTR), views on the differential consequences and perceptions of the antecedents. This approach allowed for rich, subjective insights and thematic interpretations grounded in participants' own meaning-making processes.

The transformative worldview is underpinned by values of social justice and the empowerment of marginalised voices. It is often associated with participatory methods and advocacy-driven research agendas. While the transformative paradigm resonates with my values as a practitioner working in inclusive educational environments, this worldview was not directly adopted for this thesis. The research was not focused explicitly on systems of oppression or discrimination, though it acknowledged power relations within team and school structures. However, the commitment to respectful, context-sensitive inquiry was maintained throughout.

Finally, pragmatism, often linked with mixed methods research, places emphasis on the practical application of knowledge and solving real-world problems. Pragmatists view the research question as central and are less concerned with adhering to a single philosophical tradition. Over the course of this thesis, I increasingly aligned with a pragmatic orientation. This allowed me to integrate postpositivist and constructivist approaches to address different facets of the research problem, reflecting both the complexity of the topic and the interdisciplinary nature of applied sport psychology (Creswell & Plano Clark, 2007; Teddlie & Tashakkori, 2009).

As such, the interplay between these worldviews was not rigid or linear, but reflected a dynamic, evolving engagement with the research questions at hand. Holmes (2020) emphasises that it is essential for postgraduate researchers to clearly

articulate their positionality with respect to their project. Moreover, early-career researchers should critically evaluate the advantages and disadvantages of their position through an insider/outsider lens. However, a positionality statement does not in itself guarantee higher quality research; rather, it supports the development of a more reflexive and ethically aware researcher.

In line with Berger's (2015) suggestion, I maintained a reflective diary throughout the project. This reflective space allowed me to document internal dialogue, track the evolution of my assumptions, and engage in critical reflexive thinking throughout the research process. The positionality of the lead researcher is not confined to this section but is revisited across subsequent chapters, ensuring that philosophical assumptions and researcher influence are continually acknowledged (Holmes, 2020).

Ultimately, the lead researcher's confidence in the trustworthiness of the findings stemmed not from a claim to objectivity but from a sustained commitment to reflection, transparency, and epistemological honesty (Savin-Baden & Major, 2023).

Research Design

The current thesis adopted a multi-method research design, comprising one quantitative study (Chapter 2) and one qualitative study (Chapters 4, 5, & 6). This approach was informed by the nature of the research questions and the philosophical foundations underpinning the research. As Bryman (2016) outlines, research questions are central to shaping the overall direction of a study. They guide the review of relevant literature, inform decisions around methodology and participant sampling, determine the types of data collected, and frame the analytic process.

Throughout this thesis, the research questions functioned as an orienting structure, ensuring coherence across both methodological strands.

The lead researcher's prior and emerging understanding of coach-athlete and coach-team dynamics (and discussions with his lead supervisor) informed the underlying assumption that the coach-athlete relationship (CAR) might extend beyond individual perceptions and operate at a team level. This assumption was further shaped by the regular supervisory exchanges, professional experience, applied practice, and critical engagement with the literature on team functioning and group-level constructs in sport psychology.

The extensive research on the CAR including the available assessment tool (the CART-Q) and Jowett's relational model (Jowett, 2007) provided a foundation to the initial research question. That is, the first step was to determine whether athletes from the same team perceived the CAR (as assessed via the CART-Q) in ways that were sufficiently interdependent to warrant aggregation to a team-level construct. If this proved to be the case, it would justify the conceptual development of a distinct coach-team relationship (CTR).

Study 1, detailed in Chapter 3, was a quantitative investigation using multilevel modelling techniques and interdependence indices (e.g., ICCs, ANOVAs) to assess the degree of shared perceptions of the CAR within teams. Results showed statistically meaningful agreement among athletes from the same teams, providing evidence that CAR can be conceptualised at a team level. Moreover, team-level CAR scores significantly predicted indicators of team functioning, such as cohesion and conflict, and individual athlete outcomes. This supported the rationale for exploring

the CTR as a shared, emergent team-level phenomenon which holds implications for the team and team members.

Building upon these findings, the subsequent qualitative phase of the research was designed to explore the nature, consequences, and antecedents of the coach-team relationship. These explorations were framed by a relativist ontology and subjectivist epistemology (Crotty, 1998; Peijnenburg & Atkinson, 2011), which acknowledge that individuals construct their realities through social and cultural processes. Under this paradigm, the research prioritised subjective meaning-making and aimed to interpret participants' lived experiences of their team-level relationships with their coach.

To address these aims, the qualitative research comprising this thesis was apportioned into three interrelated but analytically distinct chapters. Chapter 4 included an examination of whether the CTR exists and is different from the CAR (in the view of young athletes and their coaches) and explored the defining characteristics of both positive and negative CTRs. Chapter 5 investigated the consequences of CTR quality for team functioning and individual outcomes. Chapter 6 examined the perceived antecedents of strong or weak CTRs. While all three chapters drew on the same dataset (comprising semi-structured interviews with athletes and coaches), the relevant data within this larger dataset were analysed thematically to address unique research questions. The use of a single dataset allowed for a rich and sustained engagement with participants' narratives, while the separate analytic focus of each study reduced redundancy and promoted depth. A visual overview of the shared research process and structure is presented below (see Fig. 4).

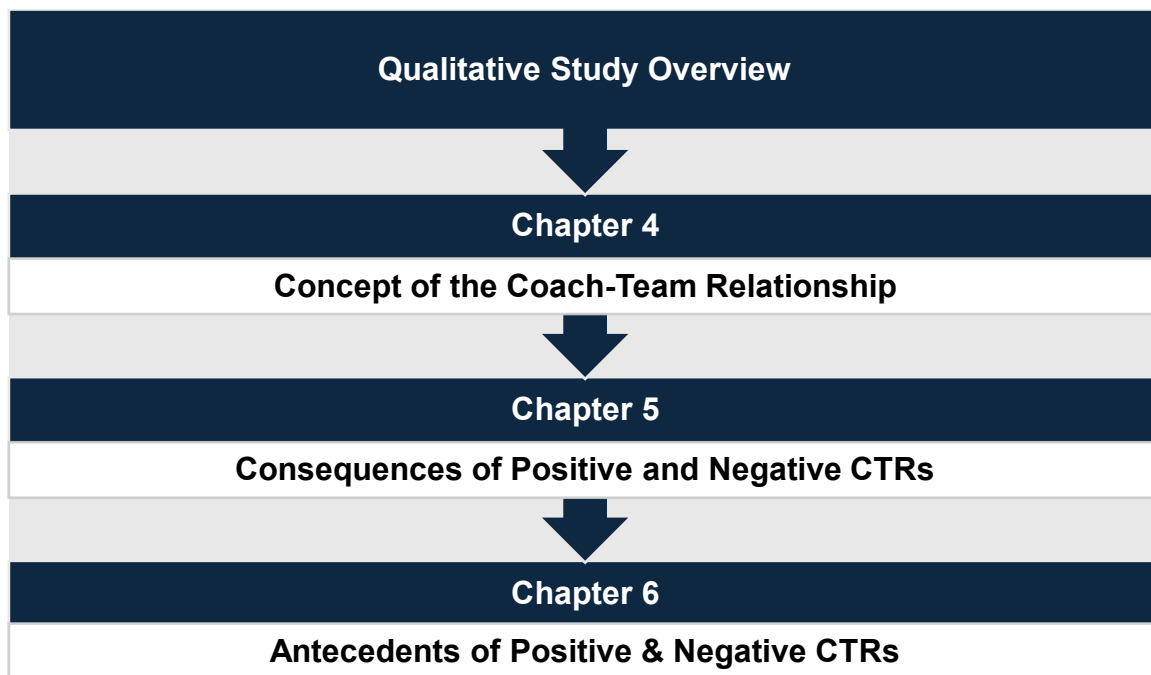


Figure 4. A visual representation of the quantitative and qualitative studies.

The decision to structure the qualitative component in this way was not merely pragmatic but philosophical. Drawing from a constructivist stance, the aim was to explore how coaches and athletes gave meaning to the CTR in their own words rather than testing a pre-existing theory. At the same time, the multi-method design allowed for a broader philosophical flexibility, consistent with a pragmatic worldview (Creswell & Plano Clark, 2007; Teddlie & Tashakkori, 2009). By embracing both postpositivist and constructivist approaches, this thesis was able to investigate the existence of team-level relational constructs and understand their meaning and impact through the eyes of those who lived them.

This section also acknowledges the researcher's axiological positioning, that is, the values brought to and embedded within the research. As a researcher-practitioner working with athletes and coaches, I recognised the importance of

relational trust, context sensitivity, and respectful interpretation. These values influenced both the design and implementation of this research and informed the interpretive decisions made throughout.

In sum, the multi-method research design adopted in this thesis enabled a layered and reflexive investigation into the coach-team relationship. By integrating quantitative theory-testing with qualitative meaning-making, the design reflected not only the complexity of the research questions but also the philosophical and professional grounding of the researcher.

Research Methods

The third and final criterion within the proposed research framework concerns the specific methods used to explore the research questions, namely, the modes of data collection, analysis, and interpretation (Creswell & Creswell, 2017). The selection of appropriate methods is shaped by the philosophical assumptions underpinning the research, the nature of the research questions, and the broader design strategy. This thesis's methodological choices were closely tied to the multi-method design, which incorporated both quantitative and qualitative strands to examine the coach-athlete and coach-team relationships in youth sport.

The methods selected reflect the researcher's intention to balance structure and flexibility across different phases of the research. The quantitative component (Study 1) relied on a postpositivist, deductive approach, employing established survey instruments and statistical analysis to test whether individual athlete perceptions of the coach-athlete relationship (CAR) could be meaningfully aggregated to the team level. In contrast, the qualitative study (Chapters 4, 5, and 6)

adopted a constructivist and interpretivist stance, using semi-structured interviews and reflexive thematic analysis to explore how athletes and coaches experience, interpret, and give meaning to the coach-team relationship (CTR).

Given the pluralistic and pragmatic orientation of this thesis, different modes of inquiry were strategically employed to address the distinct yet complementary aims of each study. The following sections provide a detailed account of the specific methods used in the qualitative study and subsequent chapters 4, 5, and 6, including details on participant recruitment, data collection procedures, analytic strategies, and ethical considerations.

Part Two

Qualitative Methodology

Overview and Rationale

The qualitative component of this thesis consists of three interconnected chapters exploring (a) the characteristics, (b) the consequences, and (c) the antecedents of positive and negative coach-team relationships (CTRs) as perceived by coaches and athletes in youth team sports. All three chapters were based on information gleaned through an extended semi-structured interview with participants (team sport athletes, team sport coaches) from a single high school sport community. The overarching aim of these conversations was to understand how the CTR is conceptualised, experienced, and interpreted in real-world team sport settings.

The research questions addressed in Chapters Four, Five, and Six aimed to achieve a comprehensive, layered understanding of the coach-team relationship. Each chapter explored a distinct analytic focus (existence of a distinct construct and

its characteristics, consequences of positive and negative CTR, and antecedents of a positive and negative CTR) using separate yet complementary coding processes within the same dataset. This approach aligns with what Thorne (2016) refers to as pursuing multiple "analytic directions" within a rich dataset and has been shown to enable deeper engagement with the complexity of a phenomenon without requiring new data collection (Braun & Clarke, 2013). By maintaining a consistent, contextual framework, the use of a shared dataset supported interpretive cohesion while allowing each study to offer unique insights. Furthermore, this strategy reduced the burden on participants and ensured analytic efficiency without compromising rigour or theoretical depth (Thorne, 2016).

Epistemological Positioning and Study Design

Chapters Four, Five and Six were underpinned by a relativist ontology and a subjectivist epistemology, reflecting the assumption that there are multiple constructed realities shaped by individuals' experiences, values, and social contexts (Crotty, 1998; Smith & Sparkes, 2016). In line with these assumptions, a qualitative descriptive design was adopted (Kim et al., 2017; Neergaard et al., 2009). This approach enabled a flexible yet rigorous exploration of participants' experiences while maintaining a close connection to the data and participants' own words. A qualitative descriptive methodology is particularly well suited to research in applied settings where a practical understanding of experience is prioritised over theoretical abstraction (Sandelowski, 2000).

Data were collected via semi-structured interviews, facilitating the elicitation of rich, nuanced accounts of how participants perceived and experienced the coach-

team relationship (CTR) within their specific team sport contexts. This method was well-suited to capturing the emotional, cognitive, and behavioural dimensions of the CTR and enabled an exploration of converging and diverging perspectives between coaches and athletes. The interview schedules were designed to probe the nature, quality, and impact of both positive and negative CTRs, as well as their antecedents, drawing from and extending Jowett's (2007) coach-athlete relationship model.

To explore the emotional dimension (closeness), participants were asked, for example, "What do you, as a coach, feel in such a situation?" (coach interview schedule) or "What kind of emotions/feelings does the team have when the coach-team relationship is positive?" (athlete interview schedule). These questions helped uncover affective responses such as trust, enjoyment, and frustration in relation to the quality of the relationship.

To access the cognitive dimension (co-orientation), questions such as "What are your thoughts when there is a close/positive relationship between yourself and the team?" and "How does what you are thinking align with what the team collectively thinks about/focuses on?" encouraged participants to reflect on shared understanding, alignment of goals, and mutual perceptions.

Behavioural aspects (complementarity) were explored through prompts like "How do you act or behave when the coach-team relationship is positive? What do you do?" and "What are the behaviours of the team when the coach-team relationship is negative?" These questions elicited accounts of communication styles, engagement patterns, and behavioural shifts under varying relational conditions.

Further questions invited participants to recall specific relational experiences (e.g., "Have you had an experience when you felt you had a very good relationship

with the team as a group?”), to reflect on the consequences of relationship quality (e.g., “What are the major implications or consequences of a positive/negative coach-team relationship for the team? For the coach?”), and to identify perceived antecedents (e.g., “What facilitates or contributes to a positive/negative coach-team relationship?”).

This structure not only aligned with the research aims but also allowed for emergent insights into how coaches and athletes differentiate between coach-team and coach-athlete relationships and how contextual factors such as the COVID-19 pandemic may have influenced these dynamics. Overall, the interview approach enabled a flexible yet rigorous means of accessing deep, contextualised understandings of CTRs in interscholastic youth sport.

Positionality of the Researcher

The lead researcher held a dual role as faculty and coach within the institution from which participants were recruited. This insider (emic) status provided the researcher with cultural fluency, established rapport, and contextual insight (Creswell & Poth, 2016). At the same time, the researcher maintained a critical awareness of the potential limitations of insider research, including role confusion, assumed knowledge, and respondent bias (Berger, 2015; Holmes, 2020). Through the use of reflective journaling, supervisor debriefs, and transparent engagement with participants, the researcher sought to enhance reflexivity and trustworthiness throughout the data collection and analysis process.

The researcher’s training in counselling and sport psychology further contributed to the integrity of the research process, particularly in conducting

interviews that were both empathetic and ethically sound. Foundational counselling skills, such as empathic listening, ethical sensitivity, and non-judgmental presence, are recognised as central to effective applied sport psychology practice (McCarthy & Moffatt, 2023). These skills enabled the researcher to build trust, respond with sensitivity to participants' narratives, and navigate the complex relational dynamics inherent in coach-athlete and coach-team interactions. This approach aligns with the broader sport psychology literature that emphasises empathic communication as essential to understanding athletes' lived experiences (Petitpas et al., 1999). Moreover, the use of motivational interviewing techniques (commonly adopted by sport psychologists) demonstrates how counselling-informed practices can facilitate meaningful dialogue and enhance participant engagement (Mack et al., 2021) in interview-based qualitative studies. Taken together, these competencies supported the researcher's capacity to elicit rich, reflective data while maintaining ethical and relational rigour.

Participants and Sampling

Participants were purposefully selected to represent a cross-section of high school team sport environments within a single independent school in the USA. Inclusion criteria required coaches and athletes to have been part of the same team for at least two years and to have been in-season for a minimum of six weeks prior to data collection. The final sample included 23 individuals: 12 varsity-level coaches (7 male, 5 female; ages 36-57) and 11 student-athletes (4 male, 7 female; ages 18-19), representing boys' and girls' teams from volleyball, soccer, basketball, and lacrosse.

This sampling strategy was adopted to realise greater depth and breadth in understanding the relational dynamics within and across teams.

Procedures

Ethical approval was obtained from the University of Birmingham's Science, Technology, Engineering and Mathematics (STEM) Ethical Review Committee (ERN_12-1558AP19), and the school's Athletic Director granted institutional consent. All participants were treated following and abiding to institutional, state, and national educational and ethical guidelines concerning informed consent, confidentiality, and anonymity of responses. As some participants were minors at the time of data collection, their consent to participate did not require parental approval. This was consistent with state and federal ethical guidelines (45 CFR 46), as the survey and interviews addressed aspects of the student-athletes' typical schooling experience, such as their involvement in interscholastic sport (U.S. Department of Health Services, 2018).

Participants were informed of the voluntary nature of the study and provided written consent via a secure e-consent system. Data occurred between August 2021 and May 2022, during the COVID-19 pandemic; therefore, interviews were conducted either virtually (via Zoom) or in masked, socially distanced in-person formats, depending on participant preference. Interviews ranged from 38 to 122 minutes, with athlete interviews tending to be shorter in duration than those of coaches.

Data Analysis

Data were analysed using reflexive thematic analysis (RTA) as outlined by Braun and

Clarke (2006, 2019, 2021, 2023). RTA was selected for its widespread use across social, behavioural, and applied sciences, including clinical, health, and educational contexts, and its alignment with the study's interpretivist epistemology and exploratory research questions. Reflexive TA offers a flexible yet rigorous framework for identifying and analysing patterns of meaning ('themes') in qualitative data, enabling a descriptive and interpretative conceptualisation grounded in "the researcher's reflective and thoughtful engagement with the analytic process" (Braun & Clarke, 2019, p. 594).

This approach was applied consistently across all three qualitative chapters. Each study drew on the same dataset but pursued distinct research questions: Chapter 4 explored how coaches and athletes conceptualised the coach-team relationship (CTR), Chapter 5 examined the perceived consequences of CTR quality, and Chapter 6 investigated the antecedents of integrated and disintegrated CTRs. Reflexive TA was well-suited to this broader programme of work, enabling analytic depth while maintaining philosophical coherence across studies.

RTA's suitability for this thesis is further supported by its growing use within sport psychology and coaching science research. For example, Crowther and Grecic (2022) used reflexive TA to explore coaches' developmental journeys, demonstrating how the method captures nuanced interpretations of practice and identity. Pomerleau-Fontaine et al. (2022) similarly employed RTA to investigate wheelchair basketball athletes' perceptions of coach-athlete relationships, highlighting its strength in revealing underlying themes of trust, communication, and mutual respect.

In line with the "+1" component (co-orientation) of Jowett's (2007) 3+1Cs model, separate reflexive thematic analyses were conducted for coaches and

athletes in each study. This analytic decision helped preserve the integrity of each group's voice while enabling comparison of converging and diverging perspectives across participants.

1. Familiarisation with the data: The lead researcher immersed themselves in the dataset by listening to interview audio and video recordings, reading and re-reading transcripts, and taking detailed notes to capture emotional tone, contextual nuance, and emerging interpretive ideas (Lapadat & Lindsay, 1999). Intelligent verbatim transcription was employed to enhance readability while retaining key features such as tone, pauses, and nonverbal cues, including laughter, sighs, and shifts in voice inflexion, affording an additional interpretive layer not visible in text alone (McMullin, 2023).

This familiarisation phase was critical for early meaning-making and laid the foundation for each of the three qualitative chapters. During this process, the researcher began identifying initial impressions of the distinctiveness of the coach-team relationship (CTR) (Chapter 4), the emerging consequences associated with CTR quality (Chapter 5), and the perceived antecedents underpinning positive or negative CTRs (Chapter 6). Through active engagement with the full dataset, the researcher initiated an iterative interpretive dialogue that shaped the later phases of coding, theme development, and analysis.

2. Generating initial codes: Transcripts were imported into NVivo software, where initial codes were generated inductively, allowing participants' own language, emphasis, and expressions to shape early interpretations. Coding was conducted separately for athletes and coaches to ensure sensitivity to group-specific meaning-

making, especially given the interest in both shared and divergent perceptions of the CTR.

This initial coding process was applied across chapters four, five and six. In Chapter Four, coding focused on the distinctiveness of the CTR from the coach-athlete relationship (CAR), its defining characteristics, and participants' related emotions, thoughts, and behaviours. For Chapter Five, codes were further interrogated to examine the perceived consequences of positive and negative CTRs at both the individual and team level. In Chapter Six, coding supported the identification of perceived antecedents that contributed to either strong (integrated) or weak (disintegrated) CTRs. This layered coding process enabled a sustained and rigorous engagement with the data, with sensitivity to each study's distinct analytic focus while maintaining consistency across the broader dataset.

3. Constructing candidate themes: Related codes were clustered into candidate themes through a process of iterative refinement applied across all three qualitative chapters. Early concept maps and thematic structures were developed for each study and revisited in light of both the codes and raw transcript data, ensuring that developing themes were coherent, grounded in participants' accounts, and captured both surface-level meanings and deeper patterns.

In Chapter 4, candidate themes captured coaches' and athletes' conceptualisations of the CTR and its distinction from the CAR. In Chapter 5, the construction of candidate themes focused on the consequences of CTR quality, while in Chapter 6, early themes reflected the perceived antecedents of strong or weak CTRs.

Discussions within the research team played a key role at this stage, aligning with reflexive thematic analysis's emphasis on researcher subjectivity as a resource rather than a threat to validity (Braun & Clarke, 2019). Inter-author dialogues helped surface implicit assumptions, encouraged alternative interpretations, and contributed to the development of a more inclusive and critically reflexive interpretive framework (Tsai et al., 2016). An example of an early concept map from this stage is provided in Figure 5.

02. What are the characteristics of a Positive Coach Team Relationship?

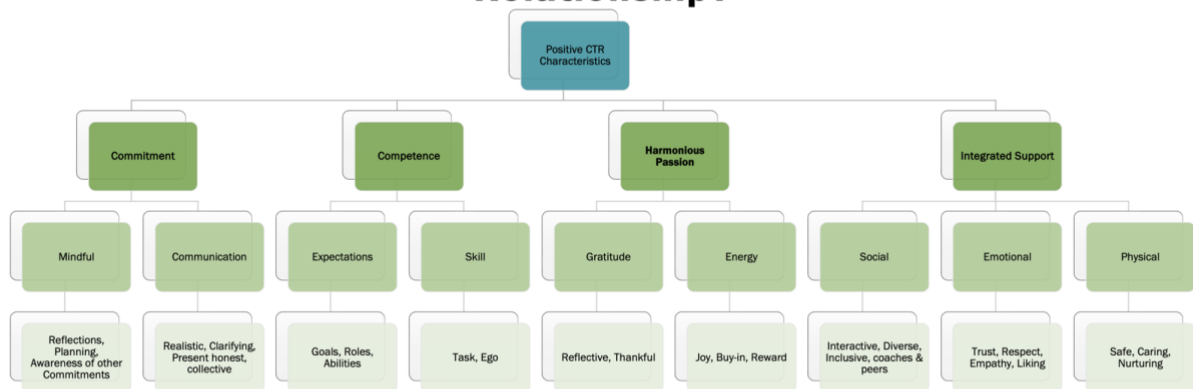


Figure 5. An early concept map for characteristics of a positive CTR

4. Reviewing themes: This phase involved a two-level process of thematic review applied across all three qualitative chapters. First, within each chapter, the internal coherence and distinctiveness of each theme were assessed in relation to their supporting data extracts, ensuring consistency and conceptual clarity. Second, the entire dataset was re-examined to confirm that each study's themes adequately

captured the breadth and depth of the narratives relevant to its specific research questions.

For Chapter 4, this meant refining themes to best represent how coaches and athletes conceptualised the CTR and its distinction from the CAR. In Chapter 5, themes were reviewed to ensure they captured the diverse consequences of CTR quality across team and individual levels. In Chapter 6, the review process focused on whether themes appropriately represented the perceived antecedents of integrated and disintegrated CTRs.

This stage involved repeated re-readings of transcripts and refining thematic boundaries through multiple iterations. Where necessary, themes were revised, merged, or discarded, and new codes were added to accommodate insights that had initially been overlooked (see Fig. 6). These reflective cycles were supported by structured team discussions to critically evaluate interpretive clarity, challenge assumptions, and reduce the influence of individual researcher bias (Broom et al., 2009; Tsai et al., 2016).

Exemplar Quotes – 1b

What is the nature of the coach team relationship?

Q1. C2VGV – Collective communication

"I speak differently, give different cues to individual players, whereas with the team it's usually more of a collective goal, a standard language that I think will reach the different players. With a team I end up saying things in different ways to reach them as a whole, versus if I'm talking to one person, I usually know how to speak to them directly, but I think overarching with the team it's more so a collective thought process of how I portray myself to them how they view me and gain the respect."

Q3. C11VBB – "Orchestra of Culture"

"The characteristics the personality that you bring in the position or the role that you have as a coach is going to directly impact your team. It is going to impact them on an individual basis by relational aspects and it's going to impact the team collectively as a whole by defining your culture... For me, I don't necessarily look at just my relational aspect of my role as it pertains to me and just my silo as the head varsity boys coach, I look at it as being the orchestrator of a culture."

Q2. C1VGB – Team Dynamic

"Yes, the one-to-one is probably, for me, more personal, personalized or individualized. And the team is more of a team dynamic. It's developing something for the greater good."

Q4. SA8VGS – Unified

"I would say there is like a collective relationship, I think that people have different perceptions of what it is, but agree on a relationship. I think that everyone recognizes those moments, where the coach is talking to the team as a whole and in those moments we're trying to be one body, one mind as a team, I think the relationship with the coach is a really important aspect and creating a unified us, as a team. I think as a team becomes more unified they probably understand that this relationship with the coach becomes more prominent."

Q5. SA3VGL – Goal Orientated

"Yes, I would say the coach athlete (relationship) is a lot more personal and the coach team (relationship) is a lot more like goal oriented"

Figure 6. An example of early exemplar quotes for the nature of CTRs

5. Defining and naming themes: Themes were refined and clearly defined to capture their analytic essence across each of the qualitative chapters. The aim was not only to describe what participants had said, but to interpret what these patterned accounts revealed about their lived experiences, meaning-making, and relational contexts with the coach.

In Chapter 4, the process focused on identifying themes that reflected how coaches and athletes conceptualised the coach-team relationship (CTR), including its perceived distinctiveness from the coach-athlete relationship (CAR), and the core characteristics of both positive and negative CTRs. In Chapter 5, themes were developed to represent the perceived consequences of the CTR at both individual and team levels, such as cohesion, conflict, motivation, and psychological well-being. Chapter 6 explored the antecedents of CTR quality, with themes capturing the

conditions that coaches and athletes believed contributed to either integrated (positive) or disintegrated (negative) relationships with the team as a whole.

In all three qualitative chapters, themes were accompanied by analytic definitions and illustrated with carefully selected data extracts. Reflexive awareness of the researcher's influence was maintained throughout (Braun & Clarke, 2023). Structured team discussions supported the naming and refinement of themes, with particular attention paid to their conceptual clarity, depth, and resonance with the research questions. Diverging interpretations were openly explored and debated, strengthening the trustworthiness and coherence of the final thematic frameworks (Broom et al., 2009).

6. Producing the report: The final phase involved weaving together the thematic narratives with illustrative participant quotes and conceptual interpretation, ensuring that each chapter's unique analytic focus was preserved. Themes were situated within the broader theoretical landscape, particularly Jowett's (2007) 3+1Cs model and the wider literature on team functioning, cohesion, and leadership in sport.

This process was applied across all three qualitative chapters, each of which produced its own thematic framework. In Chapter 4, a thematic map was developed to capture the defining characteristics of both positive and negative coach-team relationships (CTR), focusing on whether and how these were conceptually distinct from the coach-athlete relationship (CAR). Chapter 5 produced a second thematic map that illustrated the perceived consequences of CTR quality, including both team-level and individual-level outcomes. Chapter 6 generated a third thematic model that represented the perceived antecedents of integrated (positive) and disintegrated (negative) CTRs.

In each case, the final thematic outputs were developed through an iterative, reflexive process involving the lead researcher and supervisors. This collaborative dialogue was not only analytical but also interpretive, drawing upon a range of disciplinary perspectives to enhance the clarity and credibility of the final thematic structures. As with Chapter 4, the final thematic maps in Chapters 5 and 6 evolved considerably from initial conceptualisations, underscoring the value of sustained engagement with the data.

Across all three chapters, visual representations were created (see relevant figures in each chapter) to convey the thematic architecture and highlight relationships among themes. Informal participant follow-ups served as a form of participant validation, supporting the trustworthiness of the findings and helping to ensure that interpretations aligned with participants' lived experiences (Braun & Clarke, 2023; Smith & McGannon, 2018).

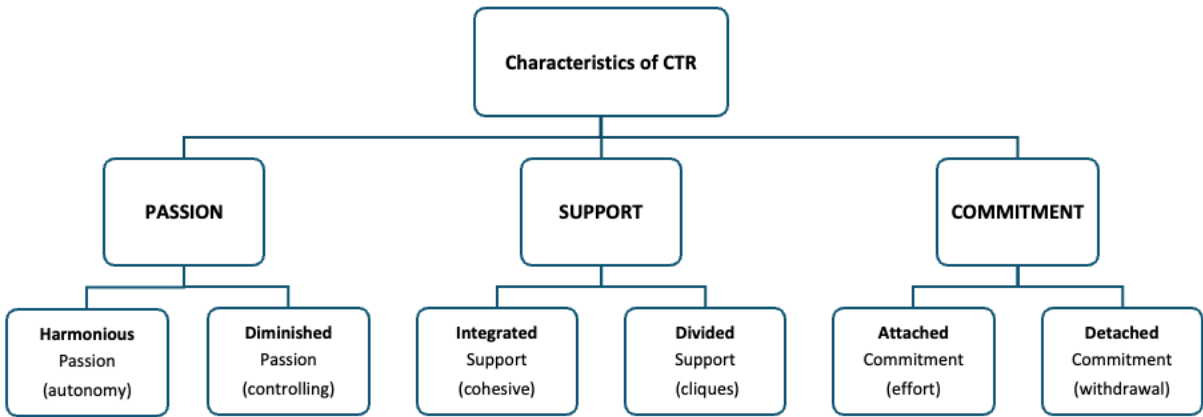


Figure 7. An example of theme refinement for positive and negative characteristics of the CTR

To enhance rigour, themes were not treated as objective “discoveries,” but as meaningful patterns of shared understanding co-constructed through reflexive analytic engagement. Ongoing dialogue with the research team helped to challenge assumptions, deepen interpretive insight, and maintain critical reflexivity throughout the analysis. Informal participant validation was incorporated through follow-up conversations, helping to ensure that the analytic interpretations resonated with participants’ experiences. In addition, visual models were created to represent the thematic structures identified across the three qualitative studies, illustrating the characteristics, consequences, and antecedents of the coach-team relationship (CTR).

Conclusion

Chapters four, five and six employed a rigorously designed and reflexively executed qualitative approach to explore the coach-team relationship (CTR) within youth team sport contexts, focusing on its nature, consequences, and antecedents. Guided by a theoretically grounded and ethically sensitive methodology, these chapters generated rich insights into how coaches and athletes perceive and experience relational processes at the team level. The findings presented in the following chapters (4, 5, and 6) contribute to the advancement of relational theory in sport and offer valuable implications for applied coaching practice and athlete development.

CHAPTER FOUR

CONCEPTIONS OF A COACH-TEAM RELATIONSHIP IN THE VIEWS OF YOUTH TEAM SPORT COACHES AND ATHLETES

Abstract

While the coach-athlete relationship (CAR) has been central to understanding relational dynamics in sport, it does not fully capture the complexity of coaching in team environments. This study explored the existence of the coach-team relationship (CTR), aligned with broader coaching science that views coaching as a relational and context-dependent practice. Using a qualitative descriptive approach, semi-structured interviews were conducted with coaches and athletes from competitive youth team sports in the USA. Reflexive thematic analysis revealed that the CTR was perceived as separate from the CAR and characterised by three core dimensions: passion, support, and commitment. These manifested positively (harmonious passion, integrated support, and attached commitment) or negatively (diminished passion, divided support, and detached commitment), shaping the overall team dynamic. The findings offer a foundation for advancing research into team-level relational processes and relevant information for applied practitioners working in team sport settings.

Keywords: coach; team; athlete; relationship

Introduction

Effective coaching in youth sport is widely recognised as a relational and context-sensitive practice that integrates professional knowledge, intrapersonal insight, and interpersonal connection (Côté & Gilbert, 2009; Lyle, 2020). Coaches are not only responsible for technical development and strategy implementation but also for managing the emotional tone, group dynamics, and shared identity of their teams. Their behaviours and interactions significantly shape athletes' experiences, both individually and collectively, influencing motivation, engagement, and team functioning (Hague et al., 2021; Konig, 2013). In team sports, where athletes must cooperate, adjust, and contribute toward shared objectives under dynamic and often pressurised conditions, the coach's ability to foster an adaptive relational environment becomes even more crucial (Cotterill, 2012; McEwan & Beauchamp, 2014).

As outlined in Chapter 1, the coach-athlete relationship (CAR) has been widely studied as a central mechanism through which coaches influence athletes' psychological outcomes and performance. Grounded in the 3+1Cs model (closeness, commitment, complementarity, and co-orientation), the CAR captures the affective, cognitive, and behavioural exchanges between a coach and an individual athlete (Jowett, 2007). Research has linked high-quality CARs to motivation, basic psychological need satisfaction, skill development, well-being, and sport commitment (Davis & Jowett, 2014; Jowett et al., 2017). However, much of this work has focused on dyadic relationships (coach-athlete), leaving open questions about how interpersonal dynamics operate at the collective team level.

Team sports are complex relational systems. Athletes do not experience their sport participation in isolation; they interact constantly with teammates, coaches, and the collective goals and culture of the group. These settings are defined by task interdependence, distributed leadership, fluctuating roles, and the need for psychological safety to support performance and development (Carron & Eys, 2012; Wagstaff et al., 2017). While a coach's one-to-one relationships with athletes remain influential, they may not sufficiently account for the emergent, shared experiences that shape how a team functions as a unit. Communication patterns, perceptions of fairness, group cohesion, and the emotional tone of training environments are all influenced not just by dyadic relationships but by how the coach relates to the team as a whole.

Recent scholarship has begun to acknowledge this gap. Researchers have highlighted the need for more systemic perspectives on coaching, ones that account for the complexity, interdependence, and cultural specificity of team sport environments (Jones & Wallace, 2005; Lyle & Cushion, 2016). This includes recognising that coaches play a key role not just as dyadic partners, but as relational leaders who influence the entire group dynamic. Investigating the coach-team relationship (CTR) offers a valuable extension to the existing literature by exploring the relational processes that occur at the group level, beyond individual CARs. The concept of the CTR reflects a coach's shared, collective relationship with their team, a relationship that is co-constructed through the mutual perceptions, emotions, and behaviours of both coach and athletes, directed at the team as a whole. In this way, the CTR aligns with broader developments in coaching science that view leadership as a relational process and team dynamics as co-created through shared

interactions (Cushion et al., 2006; Nelson et al., 2025). Conceptualising the CTR builds on the well-established relational literature while shifting attention from the dyadic to the collective level, where meaning is made not just between coach and athlete, but across the team system.

The case for this conceptual shift is further supported by emerging empirical findings. In studies comparing team and individual sports, differences in the quality and structure of coach-athlete interactions have been identified. For example, Rhind et al. (2012) found that team sport athletes were less likely to report satisfaction in their relationships with coaches, potentially due to limited one-to-one contact. Lorimer and Jowett (2009) observed that as team size increases, coaches' empathic accuracy declines, potentially weakening the quality of dyadic connections. These findings raise important questions about how coaches manage relationships within team contexts and how those relationships are experienced collectively.

Moreover, research on group-level constructs such as team cohesion (Bruner et al., 2014), collective efficacy (Stajkovic et al., 2009), and motivational climate (Gano-Overway et al., 2005; Weiss et al., 2021) has demonstrated that athletes' perceptions often converge at the team level, suggesting that relational experiences may similarly become shared. Athletes do not merely interpret their relationship with the coach in isolation; they often develop collective understandings about how the coach relates to the group, which can influence group morale, motivation, and identity. This reinforces the idea that coach-related constructs can emerge as team-level phenomena, meriting specific conceptual and empirical attention.

The current chapter contributes to this evolving area of inquiry by investigating whether youth sport coaches and athletes perceive a distinct coach-team

relationship, and if so, how they characterise it. Drawing on interviews with high school varsity coaches and athletes from multiple team sports, the chapter explores whether the CTR is viewed as conceptually distinct from the CAR, and what emotional, cognitive, and behavioural elements define it. It also examines how the quality of the CTR is experienced differently when viewed positively versus negatively, with a view toward identifying core relational dimensions at the group level.

Specifically, this chapter aims to deepen understanding of (1) whether a coach-team relationship (CTR) is perceived to exist in youth team sport contexts, (2) how the CTR is characterised by both coaches and athletes, and (3) how the CTR differs when viewed as integrated and high-functioning versus divided and low-functioning. In doing so, this chapter lays the conceptual groundwork for the two subsequent chapters, which explore the consequences (Chapter 5) and antecedents (Chapter 6) of coach-team relationships.

Methodology

As outlined in Chapter 3, this study adopted a qualitative descriptive design underpinned by a relativist ontology and subjectivist epistemology. Semi-structured interviews were conducted with 23 participants (12 high school varsity coaches and 11 student-athletes) across seven team sports at an independent school in the United States. Full details of sampling procedures, ethical considerations, and analytical processes (reflexive thematic analysis; Braun & Clarke, 2006, 2021, 2023) are provided in Chapter 3.

In this chapter, participants were asked conceptually focused questions designed to explore whether they perceived a CTR as distinct from the CAR, and to examine the perceived nature, quality, and significance of the CTR. Early questions, such as “Is this relationship [with the team as a whole] important to you?” and “Do you think teams feel like they have a relationship with the coach as a group?” explicitly invited reflection on the conceptual distinctiveness of the CTR. The interview guides (Appendices F & G) were informed by Jowett’s (2007) 3Cs+1 model and explored both positive and negative characteristics of the coach-team relationship.

Results

Through reflexive thematic analysis, the interviews provided rich insight into how coaches and athletes conceptualised the coach-team relationship (CTR) and distinguished it from the more widely studied coach-athlete relationship (CAR). This chapter presents the key themes that define how the CTR was understood, described, and experienced across teams. As outlined in the brief methodology section earlier in this chapter (and in full in Appendices F & G), participants were invited to reflect on questions such as “Do you think teams feel like they have a relationship with the coach as a group?” and “Is this relationship [with the team as a whole] important to you?” These prompts were designed to explore whether the CTR was perceived as a distinct relational construct, and to elicit its defining features, qualities, and perceived value.

The analysis aimed to capture how athletes and coaches made sense of the CTR through their own words, focusing on the relational, emotional, and behavioural

dimensions that shaped their understanding. While most excerpts presented are self-contained, occasional reference to interview prompts is used to support interpretive transparency. The following sections present the core themes underpinning participants' views on the nature and relevance of the CTR, alongside illustrative quotes and a conceptual visual model of its key characteristics (see Figs. 9 & 10).

Identification of the coach-team relationship

Data generation identified that all the coaches (n=12) and athletes (n=11) perceived the existence, importance, and conceptualisation of the CTR. Findings revealed, however, that the CTR was not a known or considered concept to all participants prior to participating in this study (when they were specifically queried about this). The interview schedule allowed each participant to describe how they interpreted the CTR with one coach, stating:

I don't know that I ever thought about it until you asked the question... but yes... all of my athletes have separate agendas, separate experiences, and separate needs and oftentimes, those come into conflict with each other, and that's a very complicated landscape... And so, I am definitely conscious of thinking about the team's direction and the team's goals as the standard by which I make decisions (C7).

Separate interpretations of the CTR further revealed the concept as a "unique", "nuanced", "complex", and "dynamic" relationship that plays an integral role in the operations of the team "as a whole" and drawing attention to the team direction, team goals and an overall unified sense of "us as a team", as described by this athlete from a varsity soccer team:

I think a coach would agree that there is a coach-team relationship. I also think that they would probably agree that they have different relationships with different athletes... Everyone recognises those moments where the coach is talking to the team; they're talking to the team as a whole, and I think that those are the moments when we are trying to be one body and one mind as a team. I think the coach-team relationship is a really important aspect in creating the unified 'us' as a team. So, I think as a team becomes more unified, they probably understand that this [coach-team] relationship with the coach becomes more prominent (SA8).

Most participants shared their perceptions of the CTR in contrast to their understanding of the interpersonal relationships between a coach and each athlete (i.e., the CAR). When queried particularly about the latter, the CAR was perceived as more "personal", more "particular", and "individually oriented" toward and impacting both athlete and coach roles, goals and expectations, as described in this quote from an assistant varsity boys' soccer coach:

I think it's important because understanding your role in that team is the biggest thing you know if your roles [are] not clearly defined and you don't clearly accept and embrace it, you can't possibly be looking at that bigger picture, and I think that's a job of the coach is to make everybody feel that they're important in their role because that's what makes the team perform as a unit (C10).

Whereas the CTR was perceived to be a more generalised, team-focused, performance- and success-oriented concept which also impacts athlete and coach motivation but is interdependent from other interpersonal relationships, as described by an athlete from a lacrosse team:

I would say that the coach-athlete [relationship] is a lot more personal, and the coach-team [relationship] is a lot more goal-oriented. So, the coach-to-athlete is a lot more personalised, obviously, and it is a bit more tailored to a specific person's goals and abilities and what their weaknesses and strengths are. And I would say, a relationship from a coach to a team is a lot more enthusiastic and optimistic and a lot more generalised, and I feel that's really when a coach has an ability to either really inspire a team or tell them, hey, this is what we really need to work on as a group (SA3).

Coaches and athletes congruently referred to the prominence and importance of "good individual relationships" between each other within their respective teams. However, the CTR was viewed as being "a separate thing altogether" and potentially "more important", as stated by the Varsity girls' basketball head coach:

The team piece is honestly the most important thing to me because I'm always going to have good individual relationships, but the team, the team is a separate kind of creature, a separate thing altogether... Man, in itself, it's so nuanced and so complex on so many levels, and there's so much that can be done to influence and shape it, and it has to start literally from the moment you finish cutting your team (C6).

In terms of success produced on the field, another coach shared the view that identifies the CTR to be at least as important, if not more important than the CAR, by bearing influence on intra-team dynamics individually and collectively:

If we're talking about success in terms of how you produce on the field, that coach-team relationships are going to probably be at least as important, if not more important [than the coach-athlete relationship] because you're talking about everybody versus one or two players (C9).

Congruent coach and athlete interpretations of the CTR provided foundational evidence to suggest that the CTR serves as a significant relational concept within youth team sports. Furthermore, the results support the plethora of research studies that suggest interpersonal relationships (i.e., CAR and PPR) play an integral role in the outcomes associated with team sports. The results of this study support a synergistic tripartite relationship model (see Fig. 8) that consists of coach-athlete relationships (CARs), athlete-to-athlete relationships (AARs), and coach-team relationships (CTRs). Depending on the quality of the CTR, the CTR subsumes the CAR and PPR (as further detailed below).

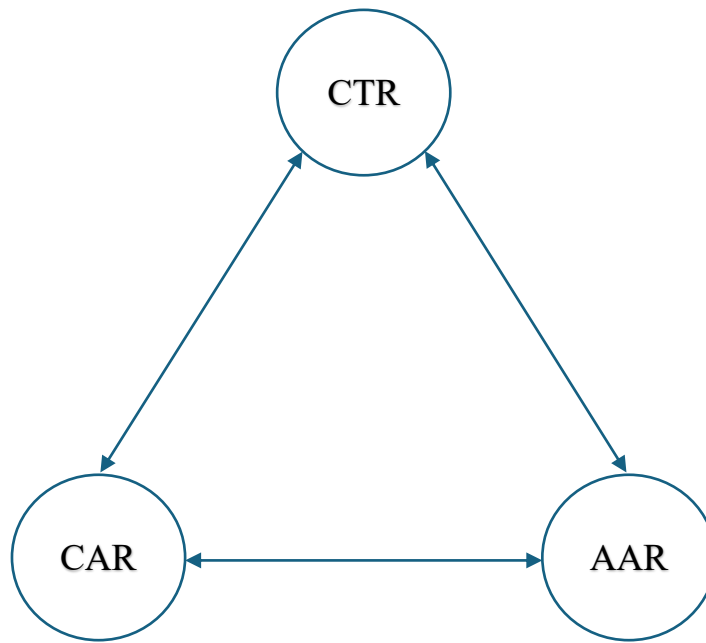


Figure 8. The Team-Sport Tripartite Relationship Model

Characteristics of the CTR & perceptions of the CTR when positive and negative

The coaches' and athletes' views of the CTR's characteristics were captured within three overarching themes: (1) passion, (2) support, and (3) commitment. Each higher-order theme consisted of two sub-themes. The lower-order themes became apparent when coaches and athletes described how their positive and negative experiences of the CTR influenced their thoughts, feelings, and behaviours within their respective teams (see Fig. 9).

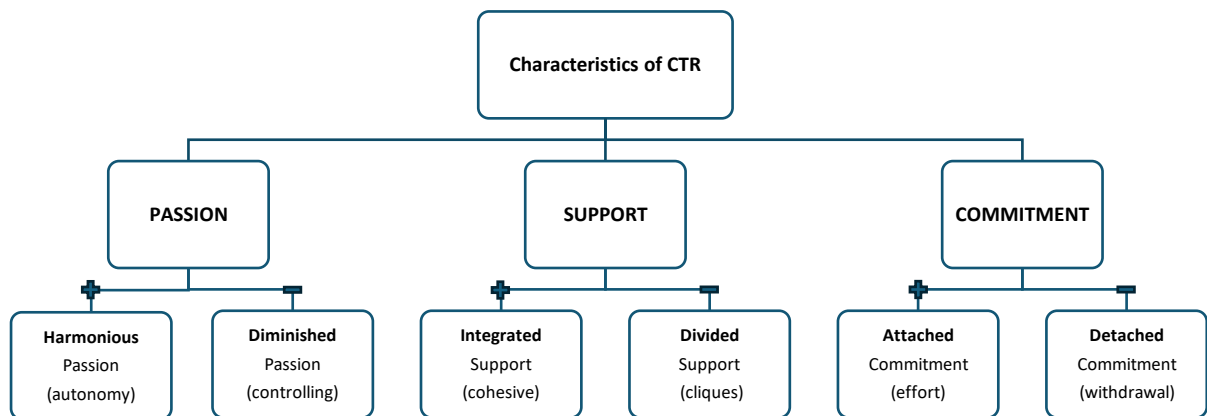


Figure 9. Higher and lower-order themes of the characteristics of CTRs when positive and negative

Passion: Passion was the first higher-order theme to capture the shared views of coaches and athletes, who described experiencing a mutual transference of energy, effort, and joy between each team's coaches and athletes and with the team as a whole:

To love what you do, have fun, doing the best that you can, that's big...

The mindset of your coach can be transferred to the mindset of the team (SA10).

When the CTR was experienced positively, passion befitted a harmonious (Vallerand, 2015) influence towards the team as a whole, leading to individual internalisation of enjoyment and autonomy as well as collective fulfilment:

I was always really excited to go, and I would look forward to it (SA6).

However, the perceived experiences of negative CTRs characterised passion as diminished due to the increasing nature of controlling and autocratic coach behaviours while simultaneously reducing individual and team autonomy.

There's less internal motivation. It's more external, driven by the coach... You have to do this, rather than what I want to do this (SA10).

Furthermore, diminished passion was perceived to increase individuals' negative emotions, and the team's relationship with the coach became increasingly explosive.

I think that as an individual, it's a lot easier to get upset, sad and reflective. But when it comes to the team and having a negative relationship with the coach, it's more explosive, more angry, more offended (SA2).

Support: Coaches and athletes described the impact of their social, emotional, and physical safety as key components to feeling supported individually and collectively within their teams.

These are 13 adoptive kids that I have, that I would walk into traffic to protect them. The hope is they might not agree with everything we do right now, but in 15 years, they will feel and think how supported, how trusted, and how loved they were (C5).

Support became more integrated and cohesive when interpretations relating to positive CTR experiences were shared. Integrated support positively influenced individual and collective motives and strengthened intra-team bonds (i.e., CAR & AAR), enhancing both CAR and AAR, while also fostering the coach's sense of connection to the team as a whole (i.e., CTR). In response to a question about what

facilitates a positive coach-team relationship, one coach reflected on how fostering a safe, supportive environment for the team positively impacted both performance and cohesion:

I think the more content, the “us” they do better, they perform better, they play better. At the end of the day, you will get the performance. If they're feeling safe, the more positive your environment is, the safer they feel, to feel like being themselves, their performances are much elevated (C10).

A contrasting image is created when the CTR is perceived as negative due to reported experiences of divided support. Divided support breaks down the cohesive nature of the team as a whole (including the coach). It separates the athletes and coaches into hierarchical cliques in an attempt to seek social, emotional and physical support from their peers (i.e., AAR).

I think it makes me want to be around my teammates more than the coach, and I will try to avoid them (SA6).

While the majority of athletes formed cliques and focused on their AARs, coaches described efforts to address team division by maintaining communication with individual athletes with whom strong relationships already existed (i.e., CARs). One coach described this approach:

My first response is to continue to communicate and find a way to figure out how the coaches and team can communicate to get on the same page. Continuing to open the doors to figure out what is the root of the problem (C3).

Although this strategy reflected coaches' efforts to repair collective dynamics, it also highlighted their reliance on a narrower set of trusted individuals when broader team cohesion was compromised.

Commitment: Commitment was the third higher-order theme, which was also associated with individual and collective perceptions of attachment. Individual commitment is characterised by coaches' and athletes' mutual development of loyalty, trust, respect, and understanding.

If the relationship is really good between the coach and the team, I just look forward to it more; I wouldn't dread it; it would be more like a fun thing than a job (SA3).

Collective commitment is characterised at the team level. Coaches and athletes shared their experiences of commitment to the team (as a whole) through accountability, relatedness, and competence.

I would just say that I put in more effort to look up new drills or look up specific cues I think they're going to hit or watch film, and I just inherently will do more. When that's the case, I also look for other opportunities to keep building the team connection through doing different team bonding events or writing thank you letters and just doing outside [of sport] activities... I keep thinking back to volleyball this season in terms of we had a great relationship with the team, and it made it really easy to want to do things and to do things together, because we were all just flowing together (C2).

When the CTR is perceived as positive, commitment is characterised as attached, where both coaches and athletes display willing behaviours by exerting effort individually and collectively as a team.

When your players trust you, they're willing to work hard and buy into the team (C3).

When the CTR is perceived as negative, commitment is characterised as detached, with athletes withdrawing from the coach and shifting their focus toward intra-team bonds with their peers. One athlete reflected:

I've had teams with terrible relationships with our coach and it's just like constant complaining in the locker room... in a way that sort of brings a team together, because we have this like mutual frustration with the coach (SA1).

Similar to the breakdown of support (see above), coaches and athletes reported comparable experiences of exerting less effort individually, resulting in reduced engagement and "buy-in" to the team as a whole. Coaches noted that early signs of such withdrawal were visible through deteriorating body language:

"It can be poor body language; to me, that is the first trigger. It's the visual cues, the huffing and puffing, and kind of crossed arms closed-off cues" (C3).

However, while athletes increasingly bonded with one another in the absence of a cohesive coach-team relationship, coaches continued to demonstrate a professional commitment to the team, despite the division. As one coach explained:

"I've learnt over the years when it is negative, I've just got to double down on figuring out why that relationship isn't strong. They don't have to love me, they don't have to like me, but we can still be respectful, and we can still work together" (C5).

Thus, when the CTR deteriorates, a dual dynamic emerges, athletes turn inward toward their peers, while coaches attempt to sustain professional commitment to a divided team structure.

Across all three characteristics, a common thread emerges. When the CTR is viewed positively, coaches and athletes experience a cohesive bond that includes the entire team. Conversely, when the CTR is perceived negatively, divisions emerge between the coach and athletes as well as between the coach and the team as a whole. Although some solidarity among athletes may be observed through shared frustrations, the quotes suggest that overall team cohesion is weakened, rather than intra-athlete bonds becoming stronger.

Some of the athletes shared that their experiences of the CTR differed at the “club” level compared to high school. Where “club” sports such as volleyball, softball, basketball and soccer were more competitive and performance outcome-oriented, they reported that participation in high school was more socially oriented (play with friends). In a similar vein, some of the coaches also noted that the CTR might vary as a function of competitive level. One specific coach reflected on their differing coaching experiences between coaching a lacrosse team at the collegiate level and at the high school level:

I think at the high school level, I see it a little bit differently, just in that I spend less time with them. We pretty much only get the five months we have together as a team, and then they're off participating either in other sports or other activities throughout the year, so I see them, obviously, in passing and kind of celebrate them as student-athletes in their other endeavours. But in terms of my coach-to-team experience,

I'm only getting them from January to May... When I was coaching at the college level, we were with our students 10 months out of the year. So, I would say that collectively, that relationship was just that much greater because, for the most part, the student-athletes were only participating in lacrosse. There weren't other multi-sport athletes and other activities taking priority at other times of the year, so just the focus was more on the sport. We just had more time to create a different chemistry within our coaching and team dynamics (C3).

Thus, the present results also suggest that the CTR (and its characteristics) may appear differently at varying levels of sport, such as grassroots, university, academy, and elite.

Discussion

The focus of this chapter was to explore the nature of the CTR within youth team sports and its characteristics pertaining to coach and athlete perceptions when positive and negative. Reflexive thematic analysis of the data obtained from 12 athletes and 11 coaches revealed that: (a) the CTR was characterised as passion, support, and commitment, (b) the characteristics of CTRs when positive (harmonious passion, integrated support, and attached commitment), (c) the characteristics of CTRs when negative (diminished passion, divided support, and detached commitment), (d) the role and significance of CTR on the coach-athlete and athlete-athlete relationships, (e) the role and significance of CTR through a proposed team sport tripartite relationship model. Overall, it was revealed that the relationship

between the coach and the team is important and variable at the youth level of competitive team sports.

This chapter found that the 3Cs of the 3+1Cs relational model came through in the findings, highlighting the importance of commitment, closeness and complementarity within the CTR model at the team level and individually. The findings revealed that the CTR's characteristics differed when perceived as positive or negative. When the CTR was perceived positively, team unity prospered, with CARs and AARs subsumed by the CTR, resulting in a synergetic relationship triad. For example, when a positive CTR was experienced, harmonious passion, integrated support, and attached commitment not only characterised team-level outcomes but also allowed for positive transference to the perceived quality of coach-athlete and peer relationships, further strengthening the team's unity.

While the findings conceptually align with the original 3Cs of the CAR (Jowett and Ntoumanis, 2004), the themes of support, passion, and commitment offer a nuanced interpretation of these dimensions within a team context. The theme of support closely reflects the dimension of closeness, as it encapsulates mutual trust, respect, care, and emotional availability between coaches and the team. However, unlike traditional dyadic closeness, support in the CTR was described as a collective phenomenon, integrated across the team rather than confined to individual bonds. Commitment mirrors the original conceptualisation of commitment within the 3Cs, characterised by loyalty, stability, and the intention to maintain the relationship. However, in this case, it is extended to include the team's shared sense of attachment to the coach and vice versa. The theme of passion aligns most closely with complementarity in the sense that both refer to functional synchrony and a

mutual desire to work together. Yet, passion also reflects energised engagement, enthusiasm, and emotional resonance, qualities that are not fully captured by complementarity's traditional behavioural focus. Thus, while the 3Cs were evident, the team-level context of the CTR introduced distinct social and affective dimensions that suggest the need to adapt or expand existing relational models to better reflect collective experiences in team sport.

While this study draws conceptually from the CAR literature, it also contributes to the broader field of sports coaching research, which extends beyond dyadic coach-athlete interactions to encompass a more systemic view of coaching practice. Contemporary coaching literature emphasises coaching as a complex social and relational activity involving multiple stakeholders, dynamic group processes, and contextual adaptation (Cushion et al., 2006; Jones & Wallace, 2005; Lyle & Cushion, 2016). The conception of the CTR developed in this study aligns with this shift, highlighting the need to understand how coaches influence and are influenced by the collective relational climate within a team. Rather than viewing coaching relationships in isolation, the findings support a holistic, ecological view that recognises the interdependence of relationships among athletes, between athletes and coaches, and across the team as a social unit. Thus, this work adds value not only to relational models such as the 3+1Cs but also to applied coaching frameworks that prioritise communication, leadership style, team cohesion, and the social construction of trust and safety in coaching environments (Nelson et al., 2025; North et al., 2018).

However, the findings revealed that when a negative CTR was experienced, diminished passion, divided support, and detached commitment caused the unity of the team to collapse. When the CTR was negative, most coaches adopted a

hierarchical, autocratic style of coaching in an attempt to establish control and connect with their team. To fix the issues at the team level, the coach's communication and behavioural style would place more importance on enhancing the quality of individual relationships between coaches, athletes, and peers. Similar findings were found in previous CAR research by Lorimer and Jowett (2009). They identified that different communication, and behavioural styles were adopted by coaches when addressing individual sport athletes in contrast to those participating in team sports. Divided support emerged as a critical issue when the CTR was perceived negatively, fracturing the cohesion of the team and prompting athletes and coaches to retreat into hierarchical subgroups or interpersonal cliques. These findings echo those of Cushion and Jones (2006), who identified divided support (collective athlete perceptions of misrecognition of power) as a core challenge in coaching contexts, particularly where inconsistent/unclear communication undermines team unity. In such environments, athletes often seek emotional, social and psychological safety within peer relationships rather than from their coaches, mirroring the present studies' findings that athletes gravitate toward their teammates when feeling unsupported or misunderstood by their coaches.

Conversely, coaches in this study attempted to regain control and connection by engaging more closely with individual athletes (often favourites), inadvertently deepening the divide. This dynamic reinforces how critical cohesive integrated support is, not just to team performance but to athletes' sense of belonging, safety and trust within the broader team environment. Similarly, Cooke et al. (2024) explored psychological safety in high-performance sports environments, highlighting that a lack of cohesive support can erode trust and hinder open communication

between coaches and athletes. This underscores the importance of fostering an environment where both athletes and coaches feel secure to express concerns and collaborate effectively.

These findings have important implications for athlete and coach well-being. For athletes, the quality of the CTR may influence not only motivation and performance but also broader psychosocial outcomes such as identity formation, belonging, and emotional safety, especially in adolescence. Equally, the relational demands placed on coaches, particularly in youth sport, can be substantial. When relational dynamics within the team become unsustainable, emerging research suggests that coaches often experience emotional exhaustion, role overload, and burnout as a result of the complex interpersonal and organisational pressures they face (Bentzen et al., 2016; Olusoga et al., 2010). Future research should consider how CTRs affect coaches' mental health and occupational well-being and explore strategies to support them in managing the social and emotional complexity of team environments.

The primary focus of this study was to understand the nature of the CTR in youth team sports, and it is important to reflect on how the developmental stage of these junior athletes likely shaped the kinds of relationships they formed with one another and their coaches. Literature on adolescent attachment (e.g., Allen & Miga, 2010) and youth friendship dynamics (Hartup, 1996; Smith & Ullrich-French, 2020) offers useful context, highlighting that such relationships are not only functional but also formative, shaped by evolving social, emotional, and identity needs. Parallels can also be drawn with other competitive-cooperative environments, such as the military, where cohesion and leadership are critical under pressure (MacCoun et al.,

2006). More broadly, the emergent patterned attitudinal space in this study may be understood as a social construct, a shared reality co-created through ongoing interaction, which underscores the intersubjective nature of relational experiences in sport and may reflect more universal processes of bonding, leadership, and cooperation. Further research, especially quantitative in nature, could further explore this attitudinal space as a multidimensional construct grounded in developmental, social and cognitive psychology.

The research findings underscore the critical role and significance of the coach-team dynamic within the subsystem of youth sports, highlighting its impact on two primary stakeholders who can influence, or be influenced by, athletes: peers and coaches (Smith & Mellano, 2023). Positive CTRs improved coaches' and athletes' perceptions of relationship quality between the coach and individual athletes as well as among the athletes. The significance of positive CTRs in improving the quality of CARs is embedded in research on the outcomes associated with high-quality CARs in team sports. For example, Olympiou et al. (2008) suggested that the quality of the CAR impacts young athletes' motivational patterns and affects important outcomes such as enjoyment, satisfaction and persistence in organised sports. Similarly, with peers acting as essential contributors to athletes' behaviours, attitudes, experiences, and outcomes in youth sports (see Smith et al., 2019; Weiss & Stuntz, 2004), there is importance to developing high-quality peer relationships. The significance of positive CTRs in improving the quality of AARs may lead to thwarting conflict (Holt et al., 2012) and victimisation (Partridge & Knapp, 2016) amongst peers and, ultimately, promoting more positive psychosocial development via sporting involvement. The significance and composition of the CTR revealed in this study underscore the value

given to the team's needs as well as individual needs, resulting in either strengthening relationships and forging more interdependence within the team or weakening the relationships and forming a division between the coach and the team.

The interviews also uncovered a potential synergistic tripartite relationship model consisting of the coach-athlete, athlete-to-athlete, and coach-team relationships (see Fig. 8). First, the results provide evidence of a hierarchical conceptualisation of the 3Cs in team sports. As such, our findings are in accordance with Rhind et al.'s (2012) call for a model of relationship quality within team sports that may better fit the data generated. Second, the model unveils the dynamic and interrelated nature of relationships in team sports. Third, considering Jowett and colleagues' (see Jowett & Cockerill, 2003; Jowett & Meek, 2000; Jowett and Ntoumanis, 2004) extensive work on the development of the 3+1Cs model and the CART-Q, this study's qualitative results provide evidence for further investigation of the antecedents and consequences of positive and negative CTRs. Based on this line of work, there will be a basis for developing and validating a self-report instrument that measures the nature of the CTR (based on current findings, we would expect this questionnaire to be multidimensional). It is possible that in assessing the quality of the CTR via a quantitative assessment tool, there may be at least three sub-dimensions or factors centring on the emotional aspects (passion), the cognitive facets (support) and the behavioural manifestations (commitment).

In a systematic review by Lefebvre et al. (2016), findings showed that coaching development programmes (CDPs) were primarily aimed at improving professional skills and technical knowledge, with very few trying to improve interpersonal and intrapersonal coach behaviours. Moreover, a more recent

systematic review (Silva et al., 2020) identified only ten CDPs that targeted intrapersonal coach behaviours, despite self-reflection and awareness being key characteristics of effective coaching (Hague et al., 2021). The outcomes of proposed future studies stemming from this research are critical for CDPs aimed at team intervention and relationship enhancement. For example, considering the nature and quality of the CTR potentially aids in exploring the social dynamics within sports teams with the general purview of understanding the implications for both individual and team-level outcomes (e.g., Eys et al., 2019; Lyle, 2020).

Finally, some of the athletes and coaches in the present study suggested that there may be differences in the nature of the CTR as a function of competitive level. Such findings are aligned with the coaching efficacy literature. That is, past research has revealed the type and relevance of specific sources of efficacy information to vary between collegiate, high school and recreational coaches (i.e., Feltz et al., 1999; Myers et al., 2005). Additionally, there are cultural and contextual differences in sports participation at the high school level. For example, interscholastic sports in the USA are typically not curriculum-based (i.e., they are extracurricular). In contrast, school sports are PE curriculum-based in most other countries (Pot & Van Hilvoorde, 2013). These differences highlight the importance of future studies on adopting the same language across sports participation, as elite and non-elite individuals. Due to the competitive and educational differences, the evolving concept of CTRs in team sports may not fully represent all youth team sports in all countries. While this small particular sample may not be considered conclusive or necessarily generalisable, it allowed for an initial in-depth study of the key questions. It provided a foundation for

future replication studies to explore other sports environments, such as educational, college/university, elite, and diverse cultural settings (Morse, 2015).

Conclusion

The main objective of this study was to extend the scope of existing research by conceptualising the CTR and its nature when positive and negative. The CTR can be defined as a social construct that impacts team members' motivations individually and collectively. At the heart of these findings, the 4Cs of the 3+1Cs motivational model (closeness, commitment, complementarity and co-orientation) influence the quality of the coach-team relationship when the CTR is experienced positively or negatively. Further research is required to define the outcomes of the CTR when positive and negative. High school-level coaches and athletes all reported that the CTR existed, which is separate from the CAR. They also perceived the CTR to be an important aspect of how the team is functioning/they are experiencing their sport involvement. The key characteristics of the CTR which emerged from the qualitative data were passion, support, and commitment, with differing inferences regarding when the CTR was perceived as positive or negative.

CHAPTER FIVE

CONSEQUENCES OF POSITIVE AND NEGATIVE COACH-TEAM RELATIONSHIPS IN THE VIEWS OF YOUTH SPORT TEAM COACHES AND ATHLETES

Abstract

The current chapter aimed to identify perceived consequences associated with positive and negative coach-team relationships according to the perspectives of high school coaches and athletes. Semi-structured interviews were conducted with twelve athletes and eleven coaches from different team sports at an independent high school in the USA. Data were analysed using inductive and deductive content analytic techniques associated with reflexive thematic analysis. The views of both the athletes and coaches indicated that when the coach-team relationship is perceived as positive, several positive task-related (e.g. collective competence, embracing challenge, role clarity & collective identity) and relationship-oriented (e.g., intrapersonal behaviours & interpersonal; athlete-coach, athlete-athlete, & athlete-team) consequences occur. Conversely, when the coach-team relationship was perceived as negative, negative task-related (e.g., collective frustration, collective fear of failure, mutual misunderstanding & team division) and relationship-oriented (e.g., athlete and coach motivational and behavioural implications & interpersonal; athlete-athlete, athlete-coach, athlete-team, coach-athlete & coach-team) consequences were seen as likely to emerge. Findings suggest that the nature of the coach-team relationship (positive or negative) is important, resulting in relevant repercussions for the team and athletes (and indeed the coaches).

Keywords: coach; athlete; team; relationship; consequences

Introduction

Participation in organised youth sports has long been associated with numerous physical, psychological, and social benefits, including enhanced physical health, the development of life skills, increased self-esteem, and stronger social bonds (Keegan et al., 2009; Eime et al., 2013; Logan et al., 2019; Weiss et al., 2021). These benefits are especially pronounced in team sport contexts, where athletes regularly engage in coordinated efforts toward shared goals. Compared to individual sports, team sports offer unique opportunities for youth to experience a sense of social belonging, peer collaboration, and identity construction within a group (Back et al., 2022; Zuckerman et al., 2021). Indeed, the interactive and social nature of team environments enables the development of group norms, shared goals, and interpersonal connections, which can significantly influence athletes' sport experiences and broader development.

However, the developmental potential of sport is not guaranteed. In recent years, youth sport participation has shown signs of decline, with large-scale surveys identifying reduced engagement across child, adolescent, and young adult populations (NFHS, 2019; Back et al., 2022). While structural issues such as cost, accessibility, and overscheduling contribute to attrition, a substantial portion of youth dropout has been linked to negative psychosocial experiences in sport (Crane & Temple, 2015). These include experiences of poor coaching, exclusionary team climates, role confusion, and pressure-inducing environments, all of which can compromise young athletes' well-being and long-term engagement. Notably, Zuckerman et al. (2021) found that the same sociocultural mechanisms that contribute to positive outcomes (e.g., belonging, shared identity) can also produce

maladaptive patterns such as hazing, excessive conformity, and toxic team norms, particularly when relational dynamics become strained.

Coaches are widely recognised as central figures in shaping these relational climates (Wekesser et al., 2021). Beyond their responsibilities for technical instruction and performance, coaches play a pivotal role in structuring the emotional and social tone of team environments. Their behaviours, values, and interpersonal styles directly influence how athletes feel, function, and relate, both, individually and collectively. Substantial empirical work has been dedicated to understanding the coach-athlete relationship (CAR), a construct that has gained significant theoretical and applied traction in sport psychology. According to Jowett (2007), the CAR represents a unique and evolving interpersonal relationship grounded in closeness, commitment, complementarity, and co-orientation (the 3+1Cs). Research has linked high-quality CARs with a range of positive outcomes, including increased motivation, satisfaction of basic psychological needs, well-being, and sport persistence (Davis & Jowett, 2014; Isoard-Gautheur et al., 2016; Jowett et al., 2017).

Despite this progress, most research on relational dynamics in sport has focused on the dyadic level, examining how individual athletes relate to their coaches. This emphasis has limited theoretical and practical understanding of how relational processes manifest at the team level, where multiple athletes interact simultaneously with a single coach and with each other. As argued throughout this thesis, team sport settings are characterised by high task interdependence, shifting roles, and the constant negotiation of shared objectives, conditions that require relational processes to be understood not only individually, but collectively (Carron & Eys, 2012; McEwan & Beauchamp, 2014). While dyadic CARs remain important,

they may not fully capture the complexity of relational functioning in team environments.

Chapter 4 of this thesis introduced and conceptualised the coach-team relationship (CTR) as a distinct, team-level relational construct that exists alongside the CAR and athlete-athlete relationships (AARs). Drawing on interviews with youth sport coaches and athletes, the study identified three defining characteristics of the CTR: passion, support, and commitment. These elements were found to differentiate integrated CTRs, in which coaches and teams experience shared motivation, emotional connection, and mutual accountability, from disintegrated CTRs, characterised by relational disengagement, fragmented communication, and collective detachment. Chapter 4 thus laid the groundwork for a new relational framework in team sport by theorising the CTR as a meaningful, emergent construct shaped by both coach and athlete perceptions.

Building on this conceptual foundation, the present chapter explores the consequences of CTR quality as perceived by youth sport coaches and athletes. Specifically, it examines how positive and negative CTRs influence the social, emotional, and motivational functioning of both individuals and the team as a whole. This study aims to provide a more nuanced understanding of how CTRs shape key psychological and relational outcomes, including role clarity, collective efficacy, identity, belonging, disengagement, and performance dynamics. Whereas high-quality CTRs are assumed to enhance cohesion and psychological safety, poor CTRs are expected to produce conditions conducive to division, withdrawal, and coaching fatigue.

The importance of investigating these consequences lies in the practical realities of team sport environments. Unlike individual sports, where relational focus is confined to the coach-athlete dyad, team settings demand that coaches manage relational dynamics across multiple levels simultaneously. This includes forming effective individual connections, fostering peer relationships, and cultivating a coherent, inclusive team culture. Understanding how CTRs function, either as enablers or barriers to team and individual flourishing, offers valuable insights for coach education, team development, and athlete well-being initiatives.

Moreover, by foregrounding the voices of coaches and athletes, this chapter continues the thesis's commitment to contextualised, person-centred analysis of sport relationships. It contributes to a growing body of relational sport psychology that views coaching not merely as a role of authority or instruction, but as an interactive, emotionally attuned, and morally situated practice. In this way, the study complements and extends existing models of coaching effectiveness by focusing not just on what coaches do, but on how coaches and teams relate, and how these relational qualities matter for sport participation and performance.

Methodology

As outlined in Chapter 3, this chapter adopted a qualitative descriptive design underpinned by a relativist ontology and subjectivist epistemology, employing reflexive thematic analysis (Braun & Clarke, 2006, 2019, 2021, 2023). The same sampling procedures, ethical protocols, and analytical approaches detailed previously were applied.

This chapter specifically explores coaches' and athletes' perceptions of the consequences of coach-team relationships (CTRs) in youth sport. Interview schedules (see Appendices F & G) were designed to elicit participants' reflections on the major implications of both positive and negative CTRs (e.g., "What are the major implications or consequences of a positive [or poor] coach-team relationship for the team? For the coach?"). Experiential follow-up prompts (e.g., "Can you describe what this was like?") encouraged participants to provide detailed accounts of emotional, behavioural, and group-level outcomes.

Separate reflexive thematic analyses were conducted for coaches and athletes to reflect the "co-orientation" perspective outlined in the 3Cs+1 model (Jowett, 2007). A conceptual model was developed to illustrate the perceived consequences of CTRs from both groups' perspectives.

Results

Through reflexive thematic analysis (Braun & Clarke, 2019), the interviews yielded a rich dataset that provided a detailed understanding of the perceived outcomes (consequences) associated with both positive (see Fig. 10) and negative (see Fig. 11) coach-team relationships (CTRs). Figures 12 and 13 offer graphical representations of how these integrated (positive) and disintegrated (negative) relationships were perceived to impact the functioning of the team, including coaches, athletes, and teammates.

The themes and subthemes presented in this chapter reflect participants' views on the relational, psychological, and behavioural consequences of high- and low-quality CTRs. As outlined in the brief methodology section earlier in this chapter,

participants were invited to reflect on “the major implications or consequences of a positive coach-team relationship, for the team? for the coach?” and similarly for negative relationships. These structured, open-ended prompts were designed to elicit in-depth accounts of how CTR quality shaped motivation, cohesion, performance, identity, and emotional connection. While most participant responses are self-explanatory in context, question prompts are occasionally restated throughout the chapter where helpful to clarify interpretive intent and ensure transparency.

Integrated CTRs revealed increased interdependence perceptions among the coaches, athletes and teammates, which, in turn, are associated with a collective understanding of thriving team processes and beneficial relationships individually and at the team level.

I would say there is a collective relationship; I think people have different perceptions of what it is but agree on a relationship. I think everyone recognises those moments when the coach is talking to the team as a whole, and in those moments, we're trying to be one body and one mind. I think the relationship with the coach is a really important aspect of creating a unified us team. I think as a team becomes more unified; they probably understand that this relationship with the coach will become more prominent. (SA8)

Disintegrated CTRs revealed increased interdependence perceptions about the team as a whole among coaches, athletes and teammates. That is, the perceptions reflected a collective understanding of waning team processes and fragmented relationships individually and at the team level.

If the relationship with the coach is really bad, then they are going to be not that focused, not that motivated, because if their coaches aren't motivated or don't have a good relationship towards them, then there's no desire there, and it deteriorates the team bonding and camaraderie because everyone knows where they stand, and if they're not one of the favourites then that definitely deteriorates relationship of the team with the coach. (SA3)

Consequences of positive coach-team relationships

Figure 10 (below) represents the shared views of coaches' and athletes' perceptions of the consequences associated with positive CTRs. The data produced two higher-order themes: (1) thriving team processes and (2) outcomes of beneficial relationships. Four lower-order themes detail thriving team processes: (1) unified team efficacy, (2) empowered team resilience, (3) unified role clarity, and (4) integrated team identity. Four lower-order themes emerged from the data to detail the outcomes of beneficial relationships: (5) athlete flourishing, (6) relational coaching bond, (7) relational teammate bond, and (8) collective team belonging.

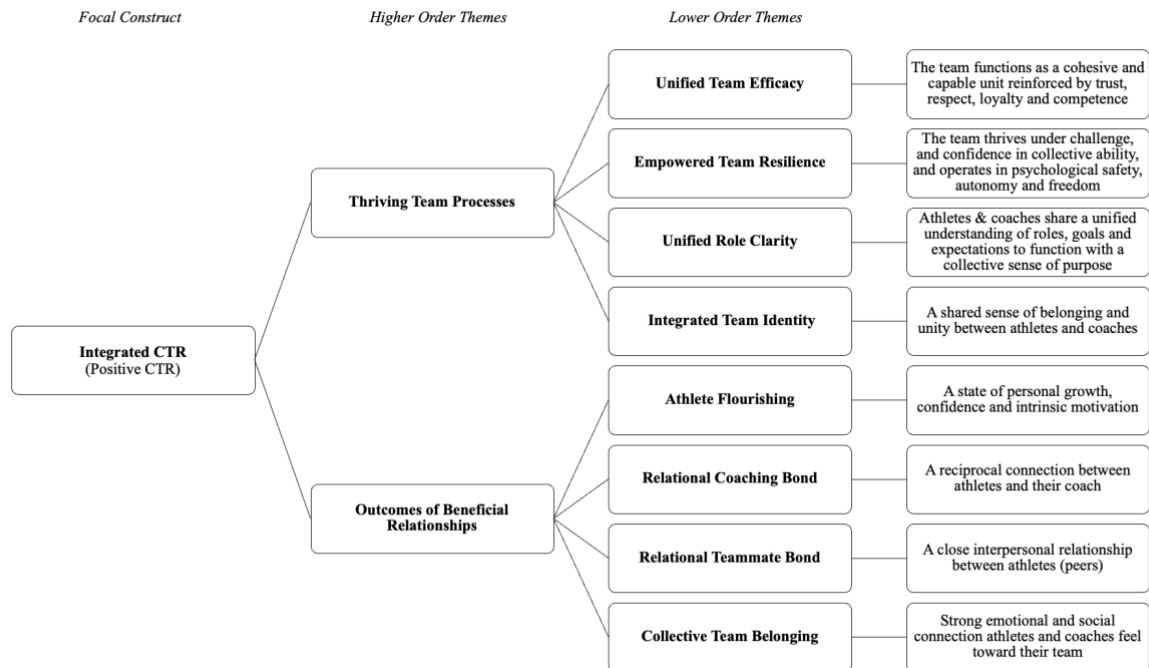


Fig 10. Higher and lower-order themes of the consequences of positive CTRs

How thriving team processes are demonstrated

Thriving team processes are demonstrated by the collective mechanisms that sustain a cohesive, functioning and motivated team, where athletes and coaches operate as an integrated whole with a shared purpose, trust and resilience.

I honestly think it starts from the very beginning, the first time you meet them. You show that, you care about each individual person and collectively as a team. You talk about your goals and what you hope to get from the season, then set out expectations, and then stick to them. I think that they can really appreciate when they know the expectations and know what the rules are and that you stick to them, and you treat everyone fairly. I think that prevents a lot of mistrust... For me it's establishing the relationship with each of them and then being able to positively talk to the team collectively over the course of the season. (C2)

These processes include Unified team efficacy, where mutual trust, respect and competence enhance motivation and performance; Empowered team resilience, which fosters a fearless, challenge-driven environment where mistakes are embraced as learning opportunities; Unified role clarity, ensuring clear individual and collective roles, goals and expectations that strengthen cohesion and accountability; and Integrated team identity, where the coach is an active and respected member of the team, reinforcing deep interpersonal bonds and shared responsibility. Together, these elements create a psychologically safe and high-performing team culture that promotes selective growth, adaptability, and sustained success.

Unified Team Efficacy - refers to the teams shared belief in its ability to succeed, supported by mutual trust, respect, loyalty, and competence within a positive CTR. Athletes describe feeling “happy, focused, hopeful, and unified” (C7), while also expressing “love what they do”, and “confidence in their leadership” (SA10). This unity fostered motivation and reinforced a “strong collective mindset” (C7). Coaches echoed this, noting that satisfaction in team cohesion allowed them to “trust the team with greater autonomy” (C12). Ultimately, *unified team efficacy* fosters a high-performing, intrinsically motivated and resilient team, where collective competence and trust drive both individual and team success.

Empowered Team Resilience - refers to a team climate where athletes take risks, embrace failure, and grow through challenge. One coach noted, “We started seeing them fail and being okay with it... they are overcoming their own cultural perfectionism” (C4). A positive CTR fosters trust and psychological safety, with athletes “more willing to fail” and “embrace mistakes as learning opportunities” (C10;

SA2). Coaches reinforced belief in success over fear of failure: “teaching is framed... not as expecting failure but as fostering belief in success” (C6). This climate supports motivation, autonomy and team unity: “There’s not an environment or culture of fear or failure...” (C5).

Unified Role Clarity - refers to the shared understanding of roles, goals, and expectations, which fosters trust, cohesion, and effective team functioning. Coaches highlighted the value of open communication and shared goal setting:

The most positive relationship is when there is open communication and when a team is setting its own goals and the team feels like it's running itself, and I'm not this figurehead, making all decisions and pushing discipline, pushing what we're going to do down on top of the team. (C6)

Clarity helped athletes recognise their unique contributions, including intangible roles: “The relationship is based on the intangible quality they bring” (C9). As roles become clearer, athlete-coach interactions are differentiated: “each individual has different interactions... everybody plays a different role” (SA6). This differentiation fosters space for honest dialogue, where concerns are seen as team-wide and coaches “listen and take action” (SA7).

Integrated Team Identity - refers to a shared sense of unity, trust, and belonging, where coaches and athletes are fully part of a cohesive group. Athletes described how “the relationship with the coach becomes more prominent” as the team unifies (SA8), and that bonding occurs “with the coach and with each other” (SA9). This identity reinforces mutual respect: athletes recognise the “effort and energy their coaches invest” (SA3). Coaches noted it fuels “grit, resilience, and a

shared determination” (C10), creating a connected, high-functioning team where trust and purpose guide success.

The outcomes of beneficial relationships

Outcomes of beneficial relationships refer to the positive intrapersonal, interpersonal and psychological effects that emerge from strong CTRs, fostering trust, motivation, and commitment among athletes, teammates, and coaches.

The overall atmosphere of the team and the way the coach interacts with them has a major effect on how much the players enjoy their experience... When a team has a good connection with the coach, they train with more intensity and purpose. (SA8)

Athletes experience athlete flourishing, where increased self-esteem, self-efficacy, and enjoyment enhance both individual and team performance. The relational coaching bond strengthens trust and communication between athletes and their coaches, fostering mutual respect and collaborative problem-solving. Similarly, the relational teammate bond deepens athlete-athlete relationships, creating a competitive yet supportive environment built on encouragement and shared commitment. At the team level, collective team belonging cultivates a strong group identity, resilience, and a shared drive for success, where athletes and coaches are fully integrated into a cohesive team culture. Together, these outcomes create an environment where athletes and coaches thrive, relationships strengthen, and the team operates as a unified, high-functioning collective.

Athlete Flourishing - reflects the psychological and behavioural growth athletes experience within a positive CTR, characterised by self-esteem, enjoyment, and motivation. One coach shared:

If they're feeling safe... the more positive the environment is..., the safer they feel to feel more like being themselves, and I think their performance is much elevated. They're more willing to suffer, more willing to fail, more willing to toil... they perform better; they play better (C10).

Athletes described being "happier, closer, and together" (SA7), with sport providing an outlet from stress and a source of joy: "They can... enjoy being in the moment and their sport" (C3). Coaches recognised this as a core reward of coaching: "It's part of the currency of coaching, why you do it" (C8). While the following quote reflects a one-to-one coach-athlete connection (i.e., CAR), it illustrates how strong relational bonds support sustained sport participation and enjoyment:

If they're having fun and liking it, they're going to stick with a sport longer and the same with the coach. They're gonna keep coaching longer... I think especially early on, when they're really young establishing a positive relationship where they can talk to their coach and see that sports are fun, and rewarding will keep them being physically active... (C2).

In cohesive CTR environments, such experiences are not only nurtured but reinforced through team-wide positivity, shared enjoyment, and collective flourishing.

Relational Coaching Bond - refers to the strengthened interpersonal connection between athletes and their coach, characterised by mutual trust, individualised support, and commitment to team success. Athletes develop unique

interactions with their coach, recognising that “each individual has different interactions with their coach” and that “everybody plays a different role on a team” (SA6). This personalised engagement fosters a sense of value and belonging, reinforcing athletes’ confidence in their role and their worth within the team. As trust deepens, communication improves, allowing athletes to feel comfortable “discussing not just individual concerns, but team-wide issues” (SA7). This open dialogue enhances conflict resolution, as both athletes and coaches actively “listen and take action” to address challenges together (SA7). Ultimately, the relational coaching bond promotes a foundation of trust, respect, and shared investment in both individual development and team cohesion.

Relational Teammate Bond - refers to the strengthened interpersonal connections between athletes, characterised by mutual respect, healthy competition, and a supportive team culture. “It’s not about removing competitiveness. It’s about creating a competitive environment where players push each other without tearing each other down.” C10). Athletes develop positive and respectful interactions, fostering a competitive environment that remains constructive rather than harmful. Coaches observe that athletes become “nicer to each other” and no longer attempt to “beat each other down” while still maintaining a high level of competitiveness (C10). This balance between support and competition strengthens team cohesion, trust and overall performance, ensuring that athletes push each other to improve while reinforcing a culture of encouragement and collective success; “they really do like each other... even if they may not be the closest of friends there is this sense of ‘hey

the team's here together'... organising sleepovers, lunches... the team is the team.”
(C4)

Collective Team Belonging - refers to the deep sense of connection, commitment, and unity athletes and coaches feel toward their team, reinforced by trust, predictability (clear expectations and roles), and respect among all members. The team develops a strong shared identity, where “there is no stronger identity than the team”, including the “coach's relationship to the team as a whole” (C10). Coaches and athletes recognise this connection as a defining characteristic of high-functioning teams, best described as “esprit de corps”, a powerful collective spirit that unites the team in pursuit of shared goals (C10). Ultimately, collective team belonging enhances team cohesion, commitment, and a shared drive for the team's identity.

Consequences of Negative CTRs

Figure 11 captures the higher and lower-order themes of the consequences of negative CTRs. Two higher-order themes emerged: (1) waning team processes and (2) team fragmentation. Waning team processes are further detailed by three lower-order themes: (1) team synergy breakdown, (2) autocratic coaching climate, and (3) role ambiguity in the team dynamic. Three further lower-order themes identified the consequences associated with team fragmentation: (4) team fracture, (5) athlete disengagement, and (6) compensatory coaching strain.

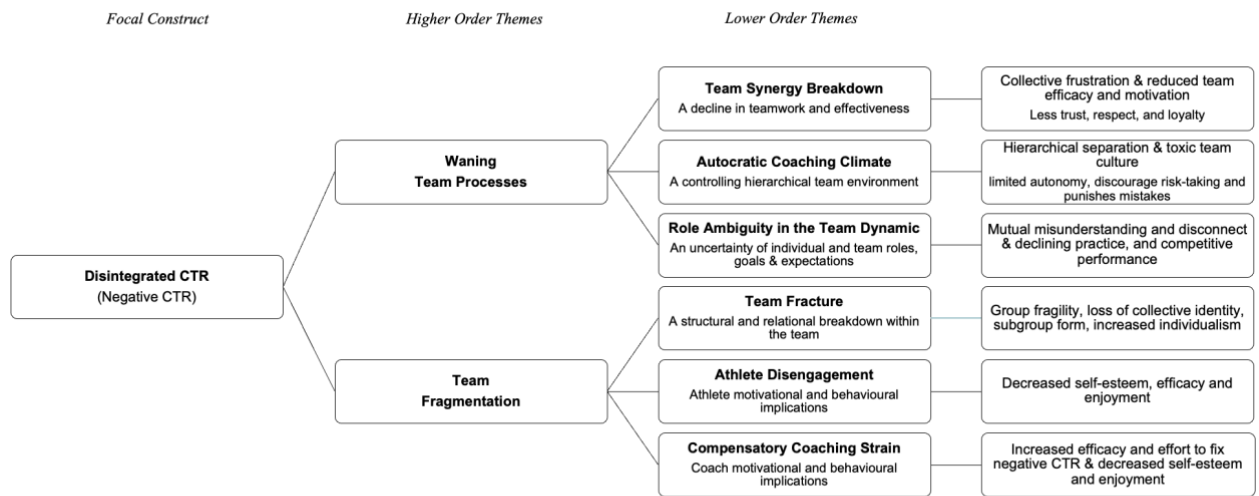


Figure 11. Higher and lower-order themes of the consequences of negative CTRs

How waning team processes are demonstrated

Waning Team Processes refer to the gradual decline in team functioning, cohesion, and motivation resulting from Team Synergy Breakdown, an Autocratic Coaching Climate, and Role Ambiguity in Team Dynamics. As collective frustration grows, athletes experience diminished trust, respect and motivation, reducing effort and engagement. A controlling and hierarchical team environment further limits athlete autonomy, fostering a fear of failure and risk aversion. At the same time, unclear roles, goals, expectations and communication gaps create mutual misunderstanding and disengagement between coaches, athletes, and teammates. Over time, these deteriorating processes weaken team cohesion and identity (as the coach separates from the team identity), impair performance and contribute to a negative team

experience, ultimately diminishing individual and collective development and performance.

If there's a negative relationship with a coach, there's this collective feeling or frustration as a team that they voice to each other and voice to the assistants or their parents, which is spread, and there's a mistrust with one of the coaches and then that collective frustration is talked about in the team and that influences the entire team dynamic, not just an individual. (C2)

Team Synergy Breakdown - refers to the collapse of cohesion and collaboration, where fractures in trust and motivation disrupt team functioning. One coach described how “different factions on the team... the separation was obvious” (C3). Collective frustration spreads, influencing performance: “it affects the entire team dynamic, not just an individual” (C2). As confidence and motivation drop, athletes in the views of coaches become disengaged, questioning drills and putting in less effort. “You have to have trust, when that’s lost, buy-in isn’t there anymore” (C3). Athletes “don’t trust the staff or don’t like the coach” (C2), leading to impaired communication, lower commitment, and diminished individual and team development.

Autocratic Coaching Climate - refers to a coach-led team environment characterised by centralised authority, limited athlete autonomy, and reduced opportunities for open communication, often arising in response to a disintegrated coach-team relationship (CTR). While this concept aligns with what has been described in motivational literature as a controlling climate, the term autocratic is

used here to reflect a broader leadership style grounded in hierarchical decision-making and top-down control (see Cotterill & Fransen, 2016; Bartholomew et al., 2010 for related perspectives). One coach observed, “Coach X [was] more authoritarian... maybe I have to play more of that part to help the team achieve balance” (C11). This relational shift creates a sense of distance between coach and team, reinforcing authority at the expense of connection. Coaches describe the climate for the athletes as “toxic” (C1), where fear of mistakes leads them to “play not to lose” (C6). The fear of being “under criticism levied against them unfairly” (C6) undermined confidence, discouraged risk-taking, and reduced motivation. As trust eroded, communication suffered, leading to a fear-driven team culture that suppressed autonomy and impaired both cohesion and performance.

Role Ambiguity in Team Dynamics - reflects uncertainty around roles, goals and expectations, which leads to misunderstanding, disengagement, and poor performance. One coach explained:

The biggest thing that ruins the coach-team relationship is a lack of clarity about everybody's role and the value of everybody's role, and that can't be one of those things that are implied or unstated but understood; it has to be articulated. (C6)

Without clear communication, both sides feel disconnected, and engagement declines. One athlete recalled early excitement fading after a loss, describing the coach as “disinterested” and the team as lacking effort (SA3). As confusion grows, motivation drops: “I don’t want to go to practice or work hard” (SA3), leading to coaches sharing “I’ve seen them miss practice... say they’re injured... act

defensive... the team becomes very dysfunctional both in performance and socially” (C10). Without aligned expectations, “some players feel engaged while others feel disconnected,” weakening passion and team commitment (C10).

How Team Fragmentation is demonstrated

Team Fragmentation - refers to the deterioration of interpersonal connections within a team, resulting in division between athletes and coaches, clique formation, individualism, and emotional disengagement. One coach explained:

The toxic environment may have cliques within your group that aren't productive, you may have cliques in your group anyway, but you're more likely to have cliques when it's not a positive environment (C10).

This breakdown is driven by team fracture, athlete disengagement, and compensatory coaching strain, which collectively weaken trust, cohesion, and communication. As athlete-coach trust erodes, athletes turn to teammates for support, forming subgroups that bond over negativity toward the coach but ultimately foster a fragile and divided team culture. Simultaneously, athletes disengage from training and competition in the views of the coach:

The team did not want to listen or did not want to do what the coach said because they didn't trust her, and they didn't like her... they weren't doing it wholeheartedly in practice... I think they're willing to do a lot less when it's negative (C2).

In response, coaches intensify their efforts to restore unity, often reaching out to team leaders or more trusted individuals in an effort to re-establish cohesion and morale. While this strategy reflects targeted problem-solving, it may not always

succeed in improving the overall team climate when relational fractures are already present:

So you go through all of those things... how do we reach out, who do we reach out to, who's is the best one to do that... and those kids are also your leaders. And they respond. So, having kids that you reach out to that are your leaders... helps raise the level of positivity... but when it's your leaders, and there's still no response, that's typically when the coach-team relationship isn't where you'd hope (C11).

In some cases, relational disconnection within the coaching staff itself further compounded team-level issues. One coach described a breakdown in leadership alignment, where inconsistent messaging between coaches disrupted team culture and created confusion:

There was a lack of cohesion of the coaching staff... I would be really hard on them and say... while my assistants were like cool hang out, joke around... it just did not work (C5).

Fragmented environments ultimately lead to heightened conflict and diminished team cohesion:

It just takes all the fun out of the game and creates a toxic environment because the team doesn't like the coach, and often, the coach, in return, doesn't really like the team, and you can never get anything done (SA3).

Team Fracture - refers to the breakdown of team unity, leading to divisions between athletes, coaches, and teammates, and fostering a fragile, fragmented culture. When trust in the coach declines, athletes bond through shared frustration:

The complaining about the coach creates a sort of bond [between athletes]. Because you can't talk to the coach about things, there are a lot more conflicts between players. With a good coach [team relationship], you can ease some of the tension between players by going to the coach and hoping that they'll make some changes... But if you have a bad coach [team relationship], you can't go talk to them about playing time or things like that. It just intensifies issues between the players (SA1).

This exclusion leads athletes to “work for each other versus for the coaches” (SA8), reinforcing cliques and a coachless team identity. Peer groups often form around negativity: “the team bonds when negativity has occurred” (SA9), which escalates miscommunication and conflict (SA5). Athletes delegate issues to captains rather than approaching coaches directly: “Captains of the team can talk to the coach to fix that” (SA7). Over time, cliques compete rather than collaborate, resulting in hostility: some athletes “go out of their way to be overly physical... to punish the other group” (C4). The emotional toll becomes visible during setbacks, with one coach describing a dynamic marked by escalating “frustration and negativity” (C4). Such emotional dynamics appeared to foster disengagement and strain, potentially undermining performance and team cohesion.

Athlete Disengagement - refers to the decline in motivation, confidence, and enjoyment in sport, often triggered by a negative coach-team relationship (CTR). Athletes described relational breakdowns with the coach as central to disengagement. One athlete shared:

The teams probably annoyed that the coach doesn't want to help or work with them. You feel like the coach is working against us rather than for us. Which is ironic because it's supposed to be a team. The team gossips and talks behind the coach a lot, and a lot of rumours are bred in those kinds of environments. It just adds to the overall 'toxicness' of the team environment (SA3).

This toxic environment produced emotional and physical stress: "feeling physically sick... experiencing fear" (SA2). Another athlete reflected in greater detail on how public criticism affected their motivation and well-being:

"I remember being physically like sick to my stomach when I would think about Tuesday practices... just because of the intensity of being blamed in front of that many people and also not enough consideration for your tiny improvements... it was getting so annoying and so fearful of going to volleyball practice... (SA2).

As these negative relational dynamics intensified, athletes described a shift from intrinsic to controlled motivation, moving from "I want to do this" to "You have to do this" (SA10), resulting in decreased effort and emotional withdrawal: "a diminished desire to engage in the practice" (SA2). This led to broader team disengagement, as one athlete explained:

Everyone on the team doesn't want to go to practice. (SA10)

The cumulative effect of these experiences reflected a breakdown in motivation, safety, and team commitment, as emotional strain and relational detachment gradually undermined athletes' willingness to participate fully in the sporting environment

.

Compensatory Coaching Strain - refers to the emotional burden coaches experience as a consequence of managing a deteriorated coach-team relationship (CTR). While Chapter 4 described how negative CTRs can feel draining and frustrating for coaches, the present findings highlight how this relational strain manifests in sustained emotional depletion, increased relational labour, and compromised well-being over time. One coach described the cumulative exhaustion that developed:

I'd say it is the amount of drag getting in the car and going to practice, whether it's leaving my house on a Saturday and wondering why I'm doing it, or if it's just walking up to the field from school. I am just dragging in those [negative CT] relationships; There are also teams where it feels like you're pulling teeth. Whether it's the same messages that you have to say every time, or it's the same things that set you off or get under your skin. I guess it may be exhaustion, that pre-emptive exhaustion that you're going in, and you know that it will be these four things you're dealing with (C4).

As disconnection grows, coaches report emotional depletion and diminished self-efficacy, described as:

A hole in the bottom of your heart, where the energy leaks out (C7).

Despite these challenges, coaches often increased their effort to maintain relational influence, describing the need to “put in the work” and inject “positive energy” even as team performance and morale declined (C1). Some coaches reflected critically on their own role in the relational breakdown, acknowledging their “potential contribution to team dysfunction” (C11) and shifting their focus toward stronger ties with select players to “regain insight into team dynamics” (C11). However, this strategy risks

unintentionally reinforcing divisions if perceived as preferential treatment by the wider team. Ultimately, heightened emotional labour, combined with relational strain and diminished enjoyment, weakens coaches' resilience and makes efforts to rebuild cohesion and trust more difficult.

Within-team integration associated with positive coach-team relationships

Figure 12 displays a visual summary of integrated coach-team relationships (CTRs), coach-athlete relationships (CARs), and athlete-athlete relationships (AARs) at the team level when the CTR is perceived positively. The diagram indicates that an integrated team demonstrates strong, positive interactions, as represented by the solid arrows for the relationships between all those constituting the team.

Athletes described how a positive CTR helps align the team around shared goals and fosters clear communication across all relational levels. Importantly, some athletes recognised the CTR as distinct from, yet complementary to, the CAR, where the team-level relationship supports the collective, and the individual CAR can then address personalised concerns:

First of all, it's a team sport, so everyone has to do this collectively. Everyone's on the same page. Don't get me wrong, I think the coach-athlete relationship is also super strong. I think that the team-coach relationship is what's better for the team, even though it may make an athlete more upset, but then that's where you have the athlete-coach relationship where you can talk about that (SA7).

A positive CTR also appeared to reduce intra-team conflict by positioning the coach as a shared point of contact for managing tension. One athlete noted that a strong team-coach connection created a space for conflict resolution and adaptation:

When in a good coach [team relationship], you're able to ease some of the tension between players by going to the coach and hoping that they will make some changes (SA1).

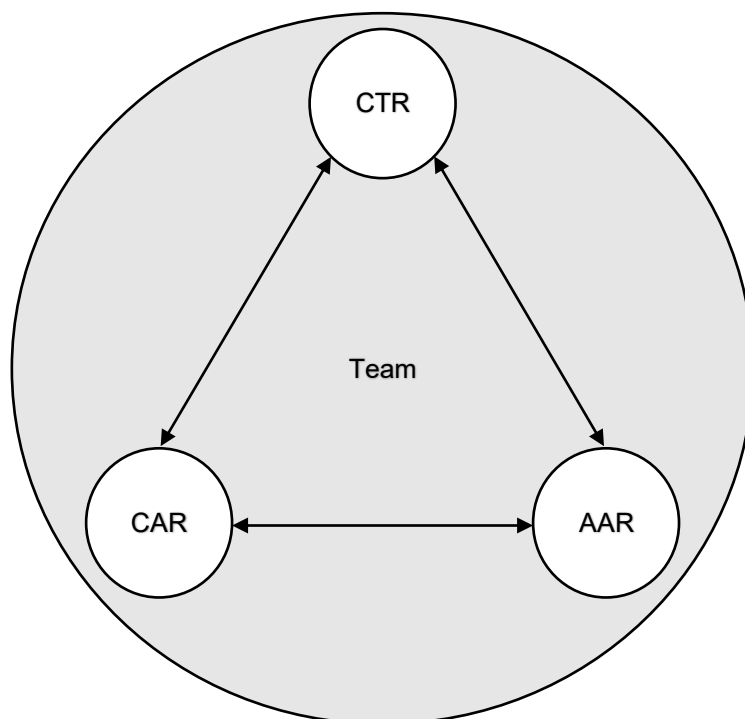


Figure 12. A graphical depiction of the integration between the team and positive CTRs

Within-team disintegration associated with negative coach-team relationships

Within-team disintegration associated with negative coach-team relationships

Figure 13 provides a visual representation of team disintegration when CTRs are negative. The construct of the team still exists, but it is no longer strengthening the

relationships as a collective unit. When the team is disintegrated, the processes wane and become fragmented, represented by the broken arrows between the CTRs, CARs, and AARs. The fragmented relationships put tension on the need for connection among coaches, athletes, and teammates, placing importance on the quality of the CTRs, CARs, and AARs as separate identifiers to the team (represented by the small solid arrows).

One athlete reflected on how this disintegration manifests behaviourally, noting that when respect for the coach diminishes (a core component of a deteriorating CAR) communication also breaks down. This limits the coach's ability to influence or unite the team, contributing further to the collapse of shared direction and cohesion:

As a coach, you have to provide knowledge, and you have to provide what you think is going to be best for the game, what you think your players can do to be better, and if players don't respect you, they're not going to listen to that. They're not going to listen to you (SA5).

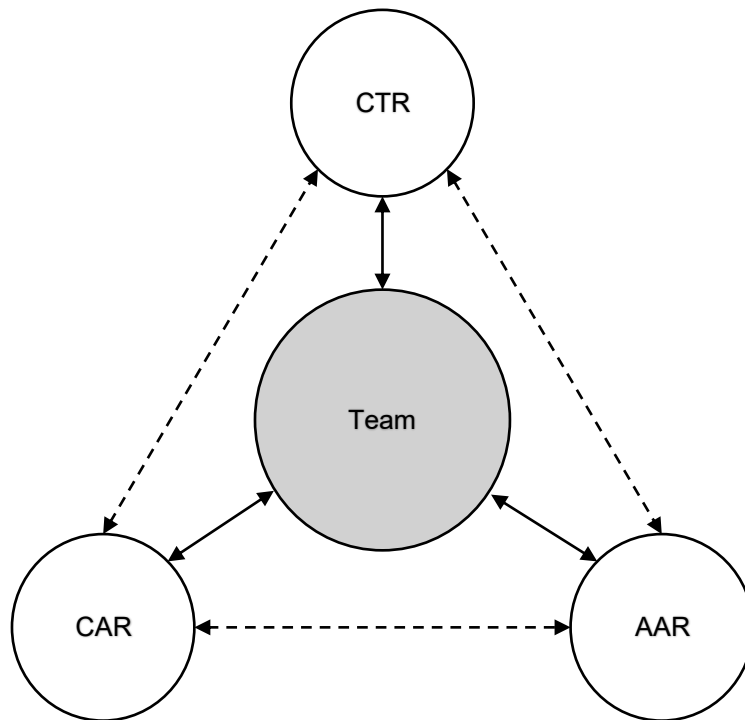


Figure 13. A graphical depiction of the disintegration between the team and negative CTRs

Discussion

Past research has demonstrated the importance of the coach-athlete relationship (CAR) to athletes' and coaches' behavioural/emotional responses (Felton & Jowett, 2013; Jowett et al., 2017; Jowett & Arthur, 2019; Mageau & Vallerand, 2003).

Previous studies have provided evidence regarding the outcomes of positive (and negative) CARs for athletes who participate in team sports (see Hampson & Jowett, 2014; Jowett et al., 2012). More recently, Chapter Four proposed that a coach-team relationship (CTR) also exists (in the views of athletes and coaches engaged in team sports) and provided insight into the characteristics of the CTR, whether deemed positive or negative. This chapter aimed to expand on the initial findings in Chapter 4

and capture the outcomes perceived to be emanating from positive and negative CTRs in the views of athletes and coaches.

Similar to the outcomes presented in the conceptual framework for cohesiveness in team sport (Carron, 1981), the consequences of the CTR perceived by the athletes and coaches in this chapter suggested that positive and negative CTRs are realised both individually and collectively. When the CTR is positive, there is a positive interdependence between coaches, athletes, and teammates. These interdependencies are realised through thriving team processes with all the relationships (team-athlete, athlete-athlete, and athlete-coach) perceived to be beneficial. Individually experienced 'thriving team processes' are marked by the clear mutual understanding of individual roles, goals and expectations, the embracing of challenges without fear of failure, confidence in the ability to be successful, and an overall strong and positive team identity. These findings align with existing literature on the construct of roles and its varying conceptions that are associated to be beneficial such as role efficacy (beliefs in one's capabilities or the capabilities of the group; Bandura, 1997), role acceptance (a dynamic, covert process that reflects the degree to which an athlete perceives their own expectations for role responsibilities as similar to and agreeable with the expectations for the role determined by the role giver; Eys et al., 2006), role satisfaction (the degree of fulfilment the role gives the individual; Eys et al., 2014), and role performance (individual ability to complete the role responsibilities with an understanding of the motivations needed to perform them; Eys et al., 2014).

Bruner et al. (2014) suggested a need for future research capturing the complexity of roles and relationships in sport teams to account for both individual and

group-level effects (i.e., athletes nestled within teams). They indicate that there can be differences between the two, which are unknown if studied separately. Similar differences were found when perceptions of efficacy held for the group (i.e. collective efficacy) were found to be related to team success (Feltz & Lirgg, 1998). In contrast, individual perceptions of efficacy (i.e. self-efficacy) were not predictive of collective efficacy. This study's findings support the notion that a positive CTR is linked to positive team processes, which are realised and supported by the team and individual athletes (Eys et al., 2014). Future research should, therefore, study the effect of the CTR at the individual (i.e., in terms of intra-personal cognitions, affect and behaviours) in addition to the impact at the team level (i.e., on team-level processes).

Relationships within the team are perceived as beneficial, and positive CTRs were deemed to enhance intrapersonal outcomes, such as self-esteem, efficacy and satisfaction and interpersonal outcomes, such as closeness (cohesion) and commitment between the coach, athletes, teammates and the team as a whole. These positive outcomes are closely tied to the concept of psychological safety. In a team sport setting, Fransen et al. (2020) define psychological safety as a shared belief within a team that it is safe to take interpersonal risks, such as admitting mistakes, asking for help, or expressing concerns, without fear of negative consequences or repercussions. Psychological safety has been associated with inspired teamwork, team resilience and team performance (Fransen et al., 2020).

Research by Fransen et al. (2020) found that nurturing a shared sense of 'we' and 'us' within a team fosters a psychologically safe environment. This environment paves the way for optimal team functioning and a healthier team overall.

Furthermore, the importance of the coach-athlete relationship (CAR) plays a crucial role in optimal team functioning (group dynamics) and a healthier team overall (Jowett & Shanmugam, 2016). When the CAR is high in quality, it is associated with increased team cohesion between athletes and coaches, which in turn correlates with improved team performance and overall team well-being (Hampson & Jowett, 2014). Thus, the interconnectedness of CTRs, psychological safety, and CARs is essential for achieving success and maintaining a healthy team environment.

For the perceived implications of negative CTRs, the findings suggested that the interdependence between athletes, coaches, and teammates is compromised. This is manifested by waning team processes and fragmented relationships. The negative team-based outcomes associated with a negative CTR include team instability (collective frustration), poor performance effectiveness (reduced team efficacy and effort), poor group relationships (division among team members), and fragmented interpersonal relationships (athlete-coach, coach-athlete, and coach-team). Individual outcomes stemming from a negative CTR are decreased athlete and coach motivation, diminished behaviours and affective responses (lower self-esteem, effort, and enjoyment). Interestingly, when the CTR was negative, it was felt that athletes tended to bond over negativity and become closer toward each other and potentially the team as a whole (with the exclusion of the coach). These findings contradict what has been found in the case of the CAR. Specifically, results indicate that team athletes are more likely to bond when positive coach-athlete relationships exist (Senel et al., 2024).

The present chapter expands on the findings of Hague et al. (2021) by providing a more detailed, qualitative exploration of the consequences associated

with positive and negative coach-team relationships. While the scoping review identified broad themes regarding coaches' influence on team dynamics, the current chapter offers a more nuanced perspective by incorporating the lived experiences of high school coaches and athletes through semi-structured interviews. Findings from the present chapter highlight specific processes and effects that emerge depending on whether the CTR is perceived as positive or negative. A positive CTR was associated with beneficial task-related outcomes, such as collective competence, embracing challenge, role clarity, and collective identity. It also fostered strong relationship-oriented outcomes, including improved intrapersonal and interpersonal behaviours at multiple levels (athlete-coach, athlete-athlete, and athlete-team). Conversely, when the coach-team relationship was perceived as negative, the chapter identified detrimental task-related consequences, such as collective frustration, a fear of failure, mutual misunderstanding, and team division.

Additionally, negative interpersonal consequences emerged, affecting motivation, behaviour, and relationships across various team dynamics, including athlete-athlete, athlete-coach, athlete-team, coach-athlete, and coach-team interactions. By detailing these specific consequences, the chapter clarifies how the quality of CTRs directly impacts both the psychological and structural aspects of team functioning. These insights build on the broad themes identified by Hague et al. (2021) and offer practical implications for fostering positive team environments and mitigating the risks associated with negative coach-team interactions.

While this chapter provides valuable insights into the consequences of positive and negative CTRs, several limitations should be acknowledged. First, the sample size was relatively small, reflecting the challenges of accessing teams, particularly in

youth sport. However, this study serves as a foundation for future research to explore the CTR across different levels, including club, college, professional, and cultural settings. Second, differences between interscholastic team sports in the USA and high school sports in other countries (e.g., the UK) should be considered, where sport is often PE-based (Pot & Van Hilvoorde, 2013). Future research could further examine these distinctions to enhance the broader applicability of findings. As the understanding of the CTR continues to develop, future research would benefit from building on the characteristics of the CTR and defining its consequences to better identify the determinants of positive and negative CTRs. With these insights, the further development of intervention approaches will strengthen the applied practitioner's arsenal, enhancing their ability to promote optimal team functioning and athlete development.

CHAPTER SIX

ANTECEDENTS OF POSITIVE AND NEGATIVE COACH-TEAM RELATIONSHIPS IN THE VIEWS OF YOUTH TEAM SPORT COACHES AND ATHLETES

Abstract

This chapter explored the antecedents of positive and negative coach-team relationships (CTRs) from the perspectives of high school team sport coaches and athletes. Building on recent conceptual work identifying CTRs as critical contributors to both team and individual athlete functioning, this research sought to understand the factors perceived to shape integrated (positive) or disintegrated (negative) relational climates between coaches and their teams. Semi-structured interviews were conducted with twelve varsity coaches and eleven student-athletes from a single independent school in the United States. The data were analysed using reflexive thematic analysis. Findings revealed four antecedent themes underpinning positive CTRs: (1) Shared, trusted, and mutually engaged relationships; (2) Role clarity; (3) Effective communication; and (4) Perceived competence and trust in ability. Conversely, five antecedent themes were identified for negative CTRs: (1) Inauthentic or disingenuous coaching behaviours; (2) Disengagement and low commitment; (3) Power imbalances and ego-driven dynamics; (4) Poor communication and misalignment; and (5) Exclusion and perceived incompetence. These findings expand understanding of how differential relational climates emerge in youth team sports and highlight the relational, psychological, and social mechanisms that drive CTR quality. Practical implications are discussed for coach education, leadership development, and the creation of cohesive, inclusive, and resilient sport environments.

Keywords: Coach, Athlete, Team, Relationship, Motivation, Communication, Youth Sport

Introduction

Coaches play a critical role in shaping athletes' experiences in sport, influencing performance outcomes, psychological development, emotional well-being, and long-term engagement (Horn, 2015; Kavussanu et al., 2008; Mills & Mayglothling, 2019). Within the field of sport psychology, particularly coaching science, considerable attention has been directed toward understanding what constitutes effective coaching (Côté & Gilbert, 2009; Horn, 2015). The prevailing view is that effective coaches are those who positively influence athletes through their behaviours, leadership, and interpersonal approaches, creating environments that promote growth, resilience, and achievement (Kavussanu et al., 2008).

A central mechanism through which coaches exert influence is the quality of the relational bonds they form with their athletes. As discussed in Chapter 1, the coach-athlete relationship (CAR) has been widely recognised as a cornerstone of coaching effectiveness, grounded in mutual trust, respect, and cooperation (Jowett & Shanmugam, 2016; Jowett, 2017). Extensive research anchored in the 3+1Cs model (closeness, commitment, complementarity, and co-orientation) has demonstrated that high-quality CARs are associated with enhanced athlete motivation, skill development, well-being, and sporting commitment (Davis & Jowett, 2014; Jowett et al., 2017). Conversely, low-quality CARs have been linked to negative psychosocial outcomes, including dissatisfaction, conflict, and athlete burnout.

While the CAR literature has provided critical insights into dyadic coach-athlete interactions, it does not fully address the relational complexities inherent in team sports. In team environments, athletes and coaches operate within broader collective structures, where interdependence, group identity, and shared relational

climates significantly shape experiences and outcomes. Research has increasingly acknowledged that the effectiveness of coaching extends beyond one-to-one relationships to include the coach's ability to foster cohesion, collective motivation, and psychological safety across the entire team (Cotterill & Fransen, 2016; Fransen et al., 2015).

The findings from Chapter Four introduced the concept of the coach-team relationship (CTR), which extends relational coaching research at the team level, differentiating it from the coach-athlete relationship (CAR). This chapter emphasised that the quality of the CTR significantly impacts team processes and interpersonal experiences. The CTR refers to the shared relational dynamic between a coach and the team as a collective entity, which encompasses perceptions of passion, support, and commitment.

Building on this foundation, Chapter 5 explored the consequences of positive and negative CTRs. The findings revealed that positive, integrated CTRs foster thriving team processes, such as unified team efficacy, empowered team resilience, role clarity, and integrated team identity, while enabling individual flourishing and strong bonds with coaches and teammates. In contrast, negative, disintegrated CTRs were associated with breakdowns in team synergy, heightened conflict, role ambiguity, motivational deterioration, and the emergence of compensatory coaching strain. These findings underscore the pivotal role that CTRs play in either enabling or constraining team and individual outcomes in youth sport settings.

Having established the significance of CTRs and their consequences, a critical next step is to understand the antecedents, the factors that contribute to the development of either integrated or disintegrated CTRs. Identifying the determinants

of CTR quality is essential for both advancing theoretical models of relational coaching and informing practical strategies for fostering more effective team environments. If coaches can better understand the conditions that give rise to positive, integrated CTRs, they can proactively design relational climates that support cohesion, motivation, and well-being. Conversely, recognising risk factors for disintegration can help coaches mitigate relational breakdowns before they erode team functioning.

Existing research into CAR antecedents has provided valuable insights, highlighting the role of communication, empathy, autonomy support, and mutual trust (Felton et al., 2021; Jowett, 2017). However, much of this work has focused on dyadic relationships rather than collective team processes. Given the added complexity of managing relational dynamics across entire teams, it cannot be assumed that the same antecedents apply at the group level without adaptation. Furthermore, the interactive nature of team sport suggests that antecedents of CTR quality are likely to be multidimensional, involving both coach-driven and athlete-driven processes, as well as contextual and structural influences (Cushion et al., 2006; Wagstaff et al., 2017).

Therefore, the aim of this chapter is to explore the antecedents that shape positive (integrated) and negative (disintegrated) CTRs, as perceived by high school varsity coaches and athletes. Using reflexive thematic analysis of semi-structured interviews, this study seeks to identify the interpersonal, motivational, and structural factors that facilitate or undermine the development of a strong, cohesive coach-team relationship.

Specifically, this chapter addresses the following objectives: (1) To identify key factors that coaches and athletes perceive as facilitating the development of integrated CTRs characterised by passion, support, and commitment. (2) To examine factors that contribute to the emergence of disintegrated CTRs, including relational tensions, communication breakdowns, and perceived mismatches in goals or values. (3) To provide practical insights for coaches aiming to intentionally foster adaptive relational climates in team sport environments.

By clarifying the antecedents of CTRs, this chapter contributes to a more comprehensive understanding of relational coaching dynamics in team sports. It builds on the conceptual groundwork established in Chapter 4 and the outcome-focused findings of Chapter 5, offering a natural progression toward a proactive model of relational development. Ultimately, identifying how positive and negative CTRs arise will support future interventions aimed at creating more connected, resilient, and psychologically safe team cultures.

Methodology

As outlined in Chapter 3, this study adopted a qualitative descriptive design underpinned by a relativist ontology and subjectivist epistemology, using reflexive thematic analysis (Braun & Clarke, 2006, 2019, 2021, 2023). The same sampling procedures, ethical considerations, and analytical approaches previously described were applied.

This chapter specifically investigates coaches' and athletes' perceptions of the antecedents of coach-team relationships (CTRs) in youth sport, focusing on factors that contribute to positive (integrated) and negative (disintegrated) relational

dynamics. Semi-structured interviews (see Appendices F and G) included questions such as, “What facilitates or contributes to a positive coach-team relationship?” and “What facilitates or contributes to a poor or negative coach-team relationship?”, along with prompts exploring emotional and behavioural responses in these contexts.

Results

Through reflexive thematic analysis, the interviews yielded a rich dataset offering insight into the antecedents of both positive and negative coach-team relationships (CTRs). This section focuses on the conditions, processes, and relational characteristics that participants associated with high-quality, integrated CTRs. The higher- and lower-order themes contributing to positive CTRs are presented below (see Fig. 14).

As described in the brief methodology section earlier in this chapter (and in full in Appendices F & G), participants were invited to reflect on questions such as “What facilitates or contributes to a positive coach-team relationship?” and “What are the causes of a poor or negative coach-team relationship?” These targeted yet open-ended prompts were designed to elicit experiential accounts of how CTRs are formed, maintained, or undermined. The analysis sought to interpret how these antecedents were understood from the distinct yet overlapping perspectives of coaches and athletes. While most excerpts presented in this chapter are self-contained, specific prompts are occasionally restated to clarify the context of a quote and enhance interpretive transparency.

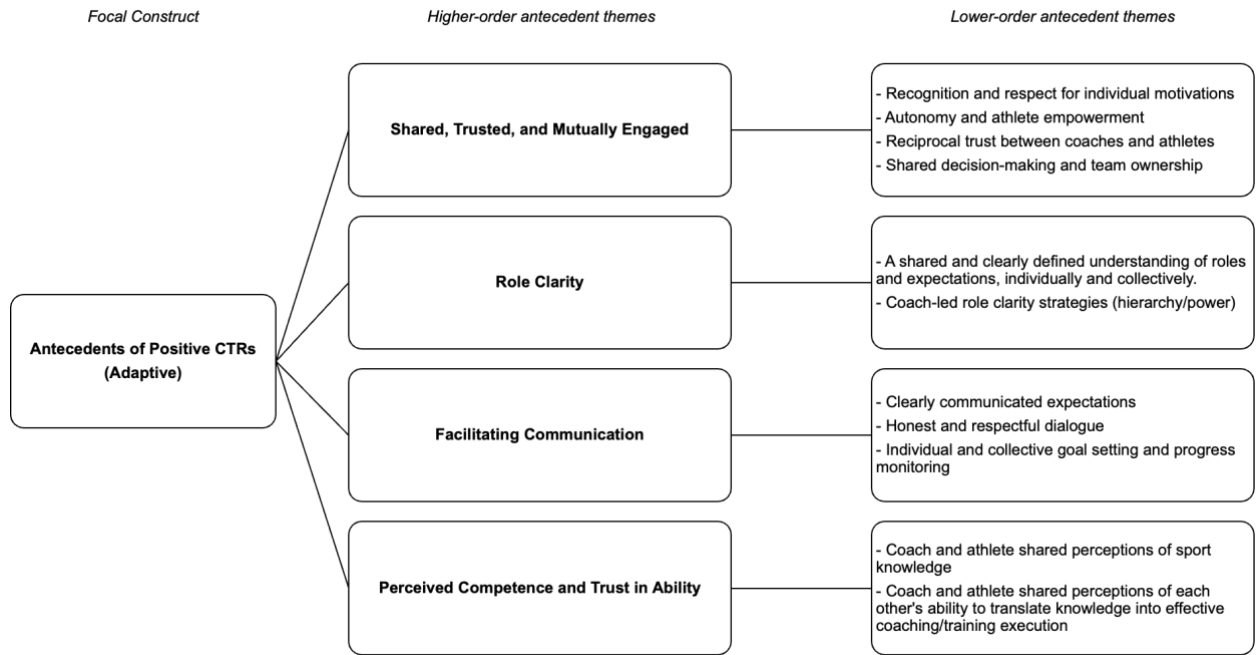


Figure 14. Higher and lower-order themes of the antecedents that contribute to positive CTRs

Determinants and Antecedents of a Positive CTR

Positive CTRs were seen to emerge from conditions that foster trust, cohesion, autonomy, and collective commitment. Four overarching determinants were consistently highlighted by both coaches and athletes: Shared, Trusted, and Mutually Engaged, Role Clarity, Effective Communication, and Perceived Competence and Trust in Ability.

1. Shared, Trusted, and Mutually Engaged

This theme captures the collaborative dynamic where athletes and coaches actively contribute to shared goals and value each other's motivations. Athletes felt empowered when input was allowed into practice design, such as "teammate-driven practices" and initiatives like "Fun Fridays" (SA2). These actions helped athletes feel

“valued, relaxed, and trusted”, key relational outcomes. As one coach powerfully reflected:

When players feel they are part of creating what we are doing, they commit more. It becomes theirs too, not just mine. (C8)

A coach similarly reflected:

They felt like they were shaping the outcome moment by moment, instead of waiting for me to pull magic out of the hat (C6).

This kind of athlete empowerment was viewed as central to positive CTRs, creating relational alignment and shared ownership. Reciprocal trust further bolstered this dynamic. One coach noted: “They trust that I’ll be there to help them,” and in turn gave athletes more autonomy: “I let them take control in practice” (C5, C12). This exchange of trust and responsibility was repeatedly linked to a stronger sense of team identity and cohesion.

2. Role Clarity

Participants consistently identified role clarity as foundational to a thriving CTR.

Coaches who defined expectations early, such as via “pre-season questionnaires”, were able to “establish standards from the outset” (C9). This clarity helped athletes understand where they fit and how they contributed to team success. One athlete observed:

Some of us want individual growth, some want to win... when our coach acknowledged that, it just worked better (SA3).

Adding further emphasis, a coach stated:

Understanding your role in the team is the biggest thing. Without that, you're just lost (C10).

Such alignment created predictable, secure environments where athletes felt confident in their roles and responsibilities. Coaches described this as crucial to establishing mutual commitment and trust.

3. Facilitating Communication

Communication was repeatedly cited as a mechanism that sustained relational depth and facilitated team alignment. Athletes felt included, respected, and understood when coaches communicated clearly and respectfully, particularly around expectations. As one coach stated:

I have to have the courage to communicate honestly with my players... and they respect that. That builds trust (C8).

Athletes echoed the importance of dialogue that was not only clear but emotionally resonant:

The players need to feel understood and also challenged. That only comes from honest, open communication (C8).

Shared goal-setting practices, such as “team meetings to define short- and long-term goals” (SA5VGB), created a sense of alignment, predictability, and collective buy-in.

Another coach noted:

There’s a feeling of esprit de corps and bond between the coach and the team... that’s built through communication (C10).

4. Perceived Competence and Trust in Ability

This theme captured how mutual confidence in ability contributes to a shared belief in success. Coaches expressed greater relational closeness when athletes demonstrated competence:

When I see them execute in training, I know we can go further together (C7). Similarly, athletes who saw their coaches as knowledgeable and prepared felt reassured and committed:

We trust our coach... we believe in her because she believes in us (SA4). Athletes also noted:

We trust the coach more when we feel like the plans make sense and actually help us improve (SA10)

Such perceptions promoted team efficacy, motivation, and engagement. One coach summarised this dynamic well:

When they believe in me and I believe in them, that's when we become a team, not just a group of people playing a game (C7).

Coach-Athlete Alignment and Divergence

Both coaches and athletes recognised the critical role of trust, communication, competence, and shared ownership in fostering positive Coach-Team Relationships (CTRs). However, subtle distinctions emerged in their framing of these conditions. Coaches tended to highlight their strategic role in building relational clarity, team standards, and collective purpose, viewing themselves as architects of culture. In contrast, athletes placed stronger emphasis on the emotional experience of the environment: feeling psychologically safe, authentically valued, and empowered as contributors to the team's success. As one coach described: "If I make eye contact

with five players, every player feels seen.” (C7) Meanwhile, an athlete reflected: “When we designed practices together, it stopped feeling like orders and started feeling like ours.” (SA2)

These distinct but complementary perspectives co-constructed adaptive, resilient team environments. Shared understanding, clear role expectations, honest dialogue, and reciprocal belief in each other’s capabilities all worked together to strengthen the coach-team bond, making it more resilient and effective.

Antecedents to a negative CTR

Determinants and Antecedents of a Negative CTR

Negative CTRs were perceived to arise from factors that undermine trust, cohesion, and motivation. Five key determinants contributed to dysfunctional coach-team relationships: Perceived Inauthentic Behaviours, Lack of Commitment, Power Struggles and Self-Interest, Lack of Communication, and Low Confidence in Ability (see Fig 15).

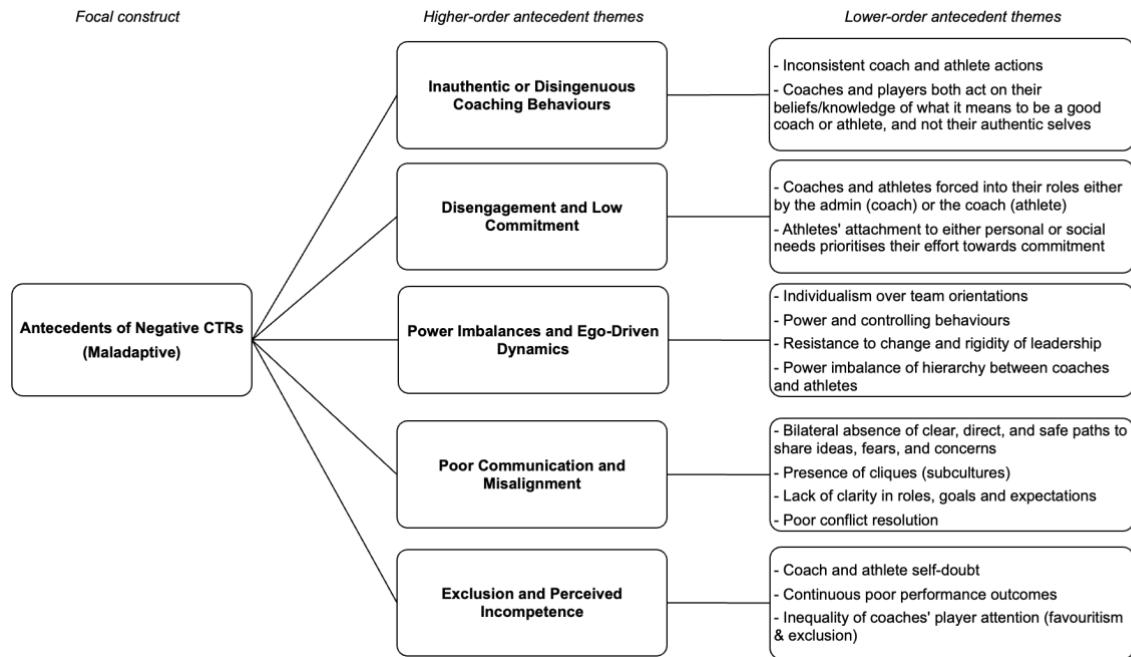


Figure 15. Higher and lower-order themes of the antecedents that contribute to negative CTRs

Determinants and Antecedents of a Negative CTR

Negative CTRs emerged when disconnection, inconsistency, or exclusion undermined trust, cohesion, and shared values. Five core antecedents consistently emerged across coach and athlete narratives: Inauthentic Coaching and Broken Promises, Relational Disengagement and Competing Commitments, Power Imbalances and Ego-Driven Dynamics, Poor Communication and Misalignment, and Exclusion, Favouritism, and Shattered Confidence.

1. Inauthentic or Disingenuous Coaching Behaviours

Athletes particularly emphasised the damaging impact of inconsistent or disingenuous coach behaviour. They were acutely sensitive to sincerity, with one noting, “You can’t blow smoke, kids pick up when it’s disingenuous... it makes everything worse” (C6). Unmet promises and surface-level praise were described as

emotionally distancing, especially when paired with inconsistent follow-through.

“They say if you work hard, you’ll play, but that’s not true. Everyone knows it,” said one assistant coach, echoing athletes’ concerns (C6). Repetitive, vague, or emotion-driven feedback further eroded trust, with one athlete describing it as “lazy coaching... not skill-oriented” (SA2). These perceptions fostered disillusionment and weakened motivation.

2. Disengagement and Low Commitment

Both athletes and coaches identified disengagement as a key contributor to fractured CTRs. While some coaches expressed frustration toward peers who lacked sport commitment (“they’re not going to show up”, C9), athletes more often described relational withdrawal. This included feeling emotionally disconnected from coaches or observing teammates who “just stopped trying” because they “didn’t trust her” (SA8). One coach observed, “You’re just trying to stay above water and not upset the team” (C6) when the relational climate was tense. These moments of collective disengagement reflected misalignment in values and emotional investment, often leading to reduced motivation and fractured cohesion.

3. Power Imbalances and Ego-Driven Dynamics

This theme captured how control, hierarchy, and ego can shape a negative relational environment. Athletes described coaches who “don’t get the bigger picture, and their ego gets in the way” (SA10), while coaches acknowledged struggling with their own role in these dynamics. One coach shared: “I had to give up power and apologise, that changed everything” (C6), highlighting how humility and vulnerability could repair strained dynamics. However, these reflections were rare in athlete narratives, which more often described environments where power felt one-sided and punitive. As one

coach noted, “When the team fails, it’s the players. When the team wins, it’s the coach” (C10). These perceptions reflected deeper tensions around voice, fairness, and ownership.

4. Poor Communication and Misalignment

Breakdowns in communication were a frequent antecedent to negative CTRs.

Coaches cited issues around clarity and consistency: “not communicating and not communicating clearly... especially around expectations” (C8). Athletes, meanwhile, reported emotional consequences, such as feeling afraid to speak up: “Especially when the issue could implicate or get other teammates in trouble” (SA3). One assistant coach described the experience of walking on eggshells: “You don’t know what to do. You’re just trying not to step on toes” (C6). Athletes also mentioned motivational fatigue caused by blanket or emotionally loaded statements: “It makes it feel hopeless... kills motivation” (SA2). The cumulative effect of these misalignments was confusion, disconnection, and emotional withdrawal.

5. Exclusion and Perceived Incompetence

This theme revealed a key divergence between coach and athlete accounts.

Coaches sometimes linked performance failures to reduced belief in their coaching ability, “I was a bad coach because they weren’t winning anymore” (C9), whereas athletes described long-lasting emotional harm. One athlete shared: “I walked away with lower self-esteem” (SA10), while others noted that a lack of transparency in playing time or recognition led to a sense of exclusion. “There were no rules being followed... it just wasn’t fair,” said one coach reflecting on a season of fractured trust (C8). These moments, especially when compounded by perceived favouritism, left athletes feeling psychologically unsafe and undervalued.

To further illustrate and substantiate the findings for both positive and negative antecedents of CTRs, additional exemplar participant quotes corresponding to each theme are presented in the appendices (see Appendices I and J). These quotes, drawn from both coach and athlete narratives, provide rich contextual support for the experiences and interpretations described above. Where direct quotes are included in the main text, the transcript source is referenced to enhance transparency and traceability.

Coach-Athlete Alignment and Divergence (Negative CTRs)

While many antecedents were shared across coach and athlete narratives, how these were perceived and experienced often differed. Coaches tended to frame these breakdowns through structural, systemic, or cultural lenses, whereas athletes expressed more visceral emotional responses. Athletes spoke of emotional exclusion, distrust, and a loss of interpersonal security and belonging within the team environment. They emphasised how coaches made them feel unseen, blamed, or forgotten. Coaches, by contrast, described systemic stressors and the weight of responsibility, often expressing self-doubt or a desire to fix culture through effort, structure, or humility. Several coaches noted moments where vulnerability and apology were transformative. Athletes, however, rarely described such moments, suggesting either that they were infrequent or that their emotional impacts took longer to repair. This divergence reflects the relational complexity of CTRs: coaches may see relational repair as logistical or cultural, while athletes experience it affectively and interpersonally.

Concluding Link to Negative CTRs

The five identified antecedents, when left unaddressed, create environments of mistrust, fragmentation, and disengagement. These conditions undermine the foundation of team unity and thwart relational and performance-based goals. The findings illustrate that fostering adaptive CTRs requires not only attention to communication, clarity, and shared values but also a readiness among coaches to reflect on their own contributions to relational dynamics. Understanding these divergent and convergent perceptions can support the development of coaching strategies that prioritise the cultivation of interpersonal security, emotional trust, and shared leadership to mitigate the risk of disintegrated CTRs.

Discussion

Overview and Contribution

This chapter provides one of the first investigations into the antecedents of positive and negative CTRs in youth sport. Building on the conceptual framework proposed in Chapter 4 and the indicated (by the athletes and coaches) consequences of positive and negative CTRs (Chapter 5), this study identifies perceived precursors of integrated (positive) and disintegrated (negative) CTRs, as perceived by athletes and coaches. While prior work has conceptualised the importance of team cohesion, collective efficacy, and coach-created motivational climates (Harwood & Thrower, 2020; Weiss et al., 2021), our findings highlight how CTRs are actively shaped through dynamic exchanges of motivation, autonomy and empowerment, communication, clarity, and trust between the coach (as well as other staff members) and the athletes (as well as athlete to athletes within the team). This work supports

the growing recognition that coaching effectiveness extends beyond dyadic interactions and requires understanding the coach's relational influence on and exchange with the team as a collective (Felton & Jowett, 2013; Fransen et al., 2015).

Interpreting Antecedents of Positive CTRs

Shared, trusted, and mutually engaged relationships emphasised the co-construction of motivational goals, where athletes and coaches actively recognised and shaped individual and collective motives together. This reflects autonomy-supportive coaching practices (Deci & Ryan, 2000; Mageau & Vallerand, 2003), where players are seen as active contributors to team functioning. Such motivational alignment has been shown to predict enhanced team cohesion, satisfaction, and psychological well-being (Black et al., 2019; Ntoumanis et al., 2005). The present findings extend this work by illustrating how shared motivational understanding contributes not only to performance outcomes but also to the formation of a relationally integrated CTR.

In addition, the present findings highlight that shared motivational engagement was not merely symbolic but manifested through tangible exchanges of power and ownership. Athletes who were trusted to co-design practices, contribute ideas, or lead training segments described feeling empowered, valued, and experiencing relaxed emotional outcomes that reinforced relational cohesion. This reciprocal trust fostered an environment of interpersonal security and belonging, where athletes felt able to take interpersonal and performance risks without fear of judgment or exclusion. Moreover, leadership within these teams appeared more distributed, with

responsibility and relational investment shared across athletes and coaches, further strengthening the collective identity and relational integration of the CTR.

Role clarity was foundational for fostering predictability, interpersonal security, and a sense of belonging. This aligns with prior research highlighting that clearly defined roles reduce intra-team conflict, enhance commitment, and support collective functioning (Beauchamp et al., 2020; Eys et al., 2005). Our results further suggest that when coaches proactively align athlete roles with their individual motives, such as by using questionnaires or role discussions, it signals relational care, strengthens team bonds, and enhances the quality of the coach-team relationship.

Furthermore, the findings emphasised that role clarity served not only as a structural guide but also as a relational signal of care and respect. When coaches proactively sought to understand individual athlete motives and aligned them with specific team roles through tools such as pre-season questionnaires, one-on-one discussions, or mid-season check-ins, athletes reported feeling more secure, valued, and motivated. This proactive clarification reduced the risk of perceived favouritism or unfair treatment, which, in turn, minimised intra-team tension and fostered a stronger sense of interpersonal trust and team belonging.

Importantly, coaches who allowed role flexibility to evolve based on athlete development further reinforced relational trust and sustained engagement across the season.

Effective communication. Open, respectful communication was perceived as a central mechanism for relational cohesion and in so doing, a positive coach-team relationship. Prior studies have consistently identified communication as a determinant of CAR quality (Jowett & Cockerill, 2003), with transparent and two-way

exchanges linked to mutual understanding and trust (Poczwadowski et al., 2006).

This study reinforces the importance of communication for the relationship between the coach and the team, highlighting how regular team check-ins and collaborative dialogue support the emergence of co-orientation and collective identity.

Additionally, the findings revealed that effective communication was central to relational trust-building and emotional climate management within the team. Athletes emphasised that coaches who communicated openly fostered greater respect, a sense of interpersonal security, and a stronger sense of collective purpose. Coaches similarly reflected on the courage required to engage in honest, respectful dialogue rather than avoiding conflict or masking expectations. Regular check-ins, collaborative goal-setting meetings, and emotionally attuned feedback loops were seen as crucial practices that helped maintain team alignment, motivation, and mutual trust throughout the season.

Perceived competence and trust in Ability. Both coaches and athletes described reciprocal belief in one another's abilities as a relational process, co-developed through shared success, empowerment, and aligned expectations, forming the foundation of an integrated, high-quality CTR. This finding reflects the role of collective efficacy in group environments such as music (Ray & Hendricks, 2019) schools (Strahan nee Brown et al., 2019), and sports (Eys et al., 2019) and aligns with research suggesting that coach and athlete trust in each other's ability is a critical predictor of team performance, resilience, and satisfaction (Dirks, 2000; Fransen et al., 2015). By demonstrating that shared competence is relationally co-constructed, our findings point to the psychological dimension of team trust as a key antecedent to CTRs.

Furthermore, the findings highlighted that perceived competence and trust were dynamic, relational constructs that evolved through shared experiences across the season. Athletes who felt trusted by their coaches to take leadership roles, make decisions, or creatively contribute reported higher self-efficacy and deeper commitment to the team. In turn, coaches described greater relational closeness and collective resilience when athletes demonstrated growing competence and accountability. This mutual belief created a psychologically safe environment where players were more willing to take performance risks and persist through setbacks, reinforcing the team's cohesion and relational strength.

Interpreting Antecedents of Negative CTRs

Inauthentic or Disingenuous Coaching Behaviours. When coaches were perceived as inconsistent or disingenuous, athletes disengaged and withdrew trust. These findings mirror work in educational and sport settings where coach authenticity and congruence in behaviour are linked to perceived integrity and leader credibility (Goffee & Jones, 2005; Kavussanu et al., 2008; Mburu, 2020). Although conceptual frameworks of the coach-athlete relationship recognise that relational antecedents can arise from either the coach or the athlete (e.g., Jowett & Shanmugam, 2016), in this study, perceptions of inauthenticity were directed exclusively toward coaches. Athletes did not describe themselves or their peers as exhibiting inauthentic behaviours within the team context. Thus, inauthenticity appears, within these findings, as a coach-focused antecedent that undermines the quality of coach-team relationships.

Disengagement and Low Commitment. Low perceived relational investment, whether from coaches, staff, or athletes, was experienced as a breach of trust, with emotional disengagement and misaligned values undermining interpersonal security and team cohesion. The presence of disengaged leaders disrupted team motivation and relational climate. These findings align with previous research showing that coaches' lack of care or investment can foster controlling motivational climates and diminish athletes' sense of purpose and satisfaction (Kipp & Amorose, 2008; Smith et al., 2009). Furthermore, research in both sport and organisational contexts highlights that leaders' disengagement is associated with reduced interpersonal security within teams, where athletes or team members feel less willing to take interpersonal risks or contribute authentically (Edmondson, 1999; Smith et al., 2013). Recent work also suggests that disengagement and lack of shared commitment among team leaders undermine cohesion, motivation, and the perceived relational safety of the group (Fransen et al., 2020). Thus, relational disengagement weakens cohesion and may create an emotionally unsafe and fractured environment within the team system.

Power Imbalances and Ego-Driven Dynamics. Autocratic leadership, controlling behaviours, and athlete egoism were frequently associated with the development of fractured CTRs. These behaviours reflect what Bartholomew et al. (2011) term need-thwarting coaching styles, marked by low autonomy and high control, and are known to predict athlete burnout, role conflict, and disunity. Additionally, the present findings revealed that relational fractures were not solely coach-driven. Athletes also described instances of peer self-interest and power struggles within the team, where cliques formed, leadership was contested, and

exclusionary behaviours disrupted cohesion. These intra-team dynamics further destabilised interpersonal trust and emotional security within the team environment, eroded relational bonds, and compounded the disintegration of the coach-team relationship. Thus, power imbalances and ego-driven behaviours, whether stemming from coaches or athletes, emerged as significant relational threats to the quality of CTRs.

Poor communication and Misalignment. Breakdowns in communication, particularly when expectations were unclear, feedback was emotionally charged, or dialogue was avoided, emerged as key markers of disintegrated, low-quality CTRs. These findings are consistent with conflict-focused research in the CAR literature (Wachsmuth et al., 2018), where avoidance, role ambiguity, and lack of transparent dialogue predict relational breakdowns. In line with Jowett's (2007) conceptualisation of the coach-athlete relationship, poor communication appeared to undermine the development of closeness, commitment, and co-orientation between athletes and coaches. Athletes described withdrawing emotional trust and disengaging from the relational bond with their coach when communication became inconsistent, unclear, or emotionally unsafe. Thus, communication breakdowns did not merely disrupt team-level processes but directly eroded the core coach-team relationship by fostering relational mistrust and emotional disengagement from coaching leadership.

Exclusion and Perceived Incompetence. Relational exclusion, perceived favouritism, and inconsistencies in recognition eroded athletes' belief in their value within the team. These relational injustices fractured trust, weakened collective morale, and fostered emotional withdrawal from both the coach and the team environment. This finding aligns with research on team efficacy and coach-athlete

expectancy effects, where perceptions of competence and fairness mediate effort, engagement, and relational trust (Feltz et al., 2008; Solomon, 2008). In the present chapter, athletes' confidence was undermined not solely by outcomes such as losses, but critically by experiences of being overlooked, excluded, or unfairly treated by coaches, factors that fractured social bonds and amplified feelings of disconnection (Fraser-Thomas et al., 2005).

Practical Implications

This chapter underscores the importance of training coaches to actively shape a positive relational climate within the team, moving beyond a narrow focus on individual performance and experiences. Developing a high-quality coach-team relationship (CTR) requires a deliberate, relationally attuned approach that emphasises open communication, motivation, empowerment, and mutual respect across the team.

Supporting coaches in this endeavour involves integrating specific practices and principles into coach education and ongoing professional development. First, coaches may benefit from tools that enable them to identify and discuss individual athlete motivations, helping to align these with team-level goals and values. When athletes feel their personal motivations are recognised and valued, they report greater autonomy, trust, and engagement with the team (Mageau & Vallerand, 2003). Structured interventions, such as motivational profiling or season-start planning sessions, can serve as valuable platforms for these discussions, helping coaches build a culture of mutual investment, ownership, and belief in the collective capability of both the team and the coaching staff to meet performance and relational demands.

Second, pre-season co-construction of team roles and behavioural expectations may foster greater role clarity and collective efficacy. Research demonstrates that clear role definition reduces ambiguity and enhances cohesion (Eys et al., 2005). Our findings support this: when athletes and coaches collaboratively defined roles and expectations, trust, confidence, and commitment increased, contributing to more integrated CTRs.

Third, coaches must take responsibility for maintaining regular and respectful feedback loops throughout the season. Open, ongoing communication fosters interpersonal trust, emotional security, and team unity, while also enabling timely conflict resolution and goal realignment. Research shows that athletes who perceive their coaches as responsive communicators are more likely to trust them and remain committed to the team (Smith et al., 2016). These communication practices are especially crucial during challenging moments, where transparency and mutual understanding buffer against disengagement.

Finally, coach self-reflection around relational behaviours, such as authenticity, fairness, responsiveness, and inclusivity, should be embedded within coach development initiatives. Reflective practice has been shown to enhance coaching effectiveness and adaptability (Knowles et al., 2006). Moreover, the integration of psychosocial content into formal coach education is gaining traction and is critical for cultivating empathy, self-awareness, and relational skillsets (Côté & Gilbert, 2009). Incorporating these elements into national and club-level coaching qualifications may help coaches develop more cohesive, resilient, and psychologically safe teams.

By embedding these relational competencies (i.e., communication, motivation alignment, empowerment, mutual respect, role clarity, feedback responsiveness, authenticity, and inclusivity) into formal education and ongoing mentoring, coaching programs can support a systemic shift toward relationally effective team leadership. Doing so may not only enhance individual athlete outcomes but also foster the kind of collective belonging, cohesion, and resilience that underpin thriving coach-team relationships. Nonetheless, further work is needed to explore the boundaries and broader applicability of these findings.

Limitations and Future Directions

While this chapter provides an initial and novel contribution to the overall thesis's exploration into CTRs, several limitations should be considered. The data was collected in a single independent school in the United States, which, while enabling rich, context-specific insights, limits the generalizability of findings to other cultures and sporting environments. Although qualitative studies are not designed to generalise in the statistical sense, transferability could be enhanced through future replication in different cultural and competitive contexts (Braun & Clarke, 2021). Moreover, all coaches were employed as faculty members at the school, and this dual role may have influenced both relational dynamics and participant interpretations.

This thesis focused on a single snapshot in time. While the reflexive thematic analysis approach allowed for a rich exploration of perceived antecedents, longitudinal research is needed to capture how CTRs evolve across a season or in response to key events such as injury, conflict, and/or team success. Longitudinal or

sequential designs could also help determine whether certain antecedents emerge or recede in importance depending on the developmental stage or degree of performance pressure (Wachsmuth et al., 2018).

Future research would also benefit from incorporating observational methods and/or multiple data sources (e.g., field notes, coach reflections, athlete diaries) to triangulate findings and reduce sole reliance on self-report. While this thesis avoided observation due to researcher positionality concerns, multimodal data could help validate or challenge reported findings (regarding emerging themes) and shed light on micro-interactions within the coach-team system (Sparkes & Smith, 2014). Finally, while this thesis focused on relational antecedents as viewed by the coaches and athletes, it did not assess the potential influence of broader social or structural variables.

Future research might explore how known group-level constructs, such as the coach-created motivational climate (Ames, 1992; Duda & Balaguer, 2008), peer relationships and peer conflict dynamics (Smith et al., 2016), team leadership structures (Fransen et al., 2015), and shared team efficacy norms, serve as either antecedents or contextual moderators of CTR development. Moreover, external contextual factors, including school climate, administrative support, parental involvement, and broader community engagement, may also shape relational dynamics within youth sport teams (Fransen et al., 2015). Integrating these relational and contextual variables could enhance theoretical precision and support the development of interventions that address not only the coach's behaviour but also the wider social environment that contributes to the formation and maintenance of positive or negative coach-team relationships.

Conclusion

This chapter provides novel insight into the perceived antecedents of coach-team relationships (CTRs) in youth sport. It highlights that CTRs are not simply the accumulation of dyadic coach-athlete bonds, but are actively shaped through broader social, psychological, and behavioural processes operating at the team level. By identifying specific factors that promote or undermine CTR quality (including motivational co-construction, role clarity, effective communication, mutual competence, relational authenticity, and emotional safety), this research lays critical groundwork for advancing theory, informing coach education, and guiding applied intervention. Moreover, it underscores the importance of viewing coach influence relationally, acknowledging the complex and dynamic exchanges between coaches, athletes, and the wider team system. Future research that extends these findings across cultural contexts, longitudinal timeframes, and broader social environments will further enhance understanding of how positive and negative CTRs develop, are maintained, or can be repaired to optimise both team functioning and athlete well-being.

CHAPTER SEVEN

THESIS DISCUSSION

Introduction: Reiterating the Rationale and Aims of the Thesis

Relational dynamics in sport have been recognised as central to athlete development, well-being, and performance (Davis et al., 2013; Felton & Jowett, 2013). Within this context, relational coaching has emerged as a vital mechanism by which coaches influence not only individuals but also the collective functioning of teams (Cassidy et al., 2023; Jowett, 2017). Historically, in the sport psychology literature, the coach-athlete relationship (CAR) has been conceptualised and studied predominantly at the dyadic level, with emphasis placed on interpersonal bonds, trust, commitment, and cooperation between a coach and individual athletes (Jowett & Cockerill, 2003; Jowett & Ntoumanis, 2004). However, the complex social environments inherent to team sports raise important questions about whether relational constructs extend beyond individual dyads to the team as a whole (Evans & Eys, 2015; Fransen et al., 2020).

This thesis was grounded in the need for quantitative and qualitative investigation and conceptual expansion beyond the coach-athlete dyad, leading to the development of a broader team-level relational construct specific to team sports, as has been similarly pursued in related areas such as team leadership (Cotterill & Fransen, 2016; Fransen et al., 2015) and collective efficacy research (Leo et al., 2015). Recognising the limitations of solely focusing on coach-athlete dyads, as highlighted by Jowett and Shanmugam (2016), Fransen et al. (2017), and Cotterill and Fransen (2016), this thesis aimed to explore whether a distinct CTR exists within team sport settings, and to understand the nature, consequences, and antecedents of such relationships, mirroring approaches previously undertaken to examine the CAR (e.g., Jowett, 2007). Specifically, the research aimed to determine whether

perceptions of CAR aggregate meaningfully at the team level (Chapter 2) and to qualitatively explore the nature and characteristics (Chapter 4), consequences (Chapter 5), and antecedents (Chapter 6) of the CTR as a discrete relational phenomenon.

Building on this rationale, the subsequent chapters of this thesis presented a series of empirical studies designed to investigate the existence, nature, consequences, and antecedents of the CTR within team sport settings. Through a combination of quantitative and qualitative methodologies, these studies collectively provided initial evidence for conceptualising the CTR as a distinct and meaningful relational construct. The following section integrates key findings across these studies to offer a coherent and comprehensive account of the CTR and its significance for theory, research, and applied practice in sport psychology.

Integration of Key Findings Across the Thesis

The findings of this thesis are organised according to the overarching research aims and questions posed at the outset. Across the quantitative and qualitative components, consistent patterns emerged that collectively support the coach-team relationship construct's existence, significance, and complexity.

CAR as a Team-Level Construct

Chapter 2 quantitatively examined whether perceptions of the CAR could be meaningfully (significantly) aggregated at the team level. Using multilevel modelling and intra-class correlation analyses, the results demonstrated sufficient within-team agreement in athletes' perceptions of the quality of their CARs. This justified

conceptualising the coach-athlete relationship not only as an individual-level phenomenon but also as a team-level construct reflective of shared relational environments.

Study findings further revealed that aggregated team-level CAR scores were significantly associated with team-level indicators of functioning, including higher task cohesion, lower task conflict, and lower social conflict. No significant association was observed between team-level CAR and social cohesion. At the individual level, team-level CAR positively predicted athletes' experiences of vitality and enjoyment, although no significant associations were found with autonomous motivation, controlled motivation, or dropout intentions. Together, these findings provide further support for treating dyadic relational constructs as emergent team-level phenomena within team sport contexts. They also highlight the value of aggregated (within-team) athlete perceptions of the coach-athlete relationship for understanding variability in both team dynamics and individual athlete outcomes.

Conceptualising the CTR

Building upon the quantitative evidence, Chapters 4, 5, and 6 employed a single study qualitative methodology to explore whether and how a distinct (from the CAR) CTR is conceptualised by athletes and coaches. Reflexive thematic analysis of interview data revealed perceptions of the CTR as a relational construct separate from the quality of the relationship between the coach and athlete. Coaches and athletes described the CTR as comprising relational qualities expressed toward the team collectively, rather than toward individual athletes alone.

The key characteristics of the CTR were identified as Passion, Support, and Commitment. When the CTR was experienced positively (termed "Integrated CTRs"), it was characterised by Harmonious Passion, Integrated Support, and Attached Commitment. Conversely, when the CTR was negative (termed "Disintegrated CTRs"), it manifested as Diminished Passion, Divided Support, and Detached Commitment. These findings clarified the nature of CTRs, advancing relational coaching theory beyond dyadic models.

Consequences of CTRs

Chapter 5 examined the consequences of experiencing integrated or disintegrated CTRs in the views of the athletes and coaches. Positive (Integrated) CTRs were associated with thriving team processes (e.g., unified team efficacy, empowered team resilience, role clarity, integrated team identity) and beneficial relational outcomes (e.g., athlete flourishing, stronger coaching bonds, relational teammate bonds, collective belonging).

In contrast, negative (Disintegrated) CTRs led to waning team processes (e.g., team synergy breakdown, autocratic coaching climate, role ambiguity) and team fragmentation (e.g., athlete disengagement, fractured team unity, compensatory strain on coaches). The findings illuminated the critical role CTR quality plays not only in shaping team member experiences but also in determining the social and functional health of teams as collective units.

Antecedents of CTRs

Chapter 6 explored the antecedent conditions that foster adaptive versus maladaptive CTRs. Adaptive CTRs were rooted in shared motivational understanding, clear and consistent communication, perceived competence, reciprocal trust, and a collective sense of role clarity. These conditions nurtured integrated relational environments where coaches and athletes collaboratively built a sense of “we-ness.”

In contrast, maladaptive CTRs were perceived to emerge from inauthentic coaching behaviours (e.g., disingenuous praise, unmet promises), disengagement from relational investment with the team, power imbalances between coaches and athletes, poor communication between coaches and teams, and the exclusion of athletes from valued team roles or relational opportunities. Such conditions eroded trust and alignment between coaches and teams (and, in some cases, among athletes themselves), leading to fractured relational environments and deteriorating team functioning. These findings emphasised the socially co-constructed and dynamic nature of the CTR, highlighting both coach- and athlete-driven contributions to relational outcomes.

Theoretical and Conceptual Contributions

This thesis offers several important theoretical and conceptual contributions to the field of relational coaching and team sport psychology. First and foremost, it extends Jowett’s (2007) 3+1Cs model by moving beyond the dyadic CAR to propose a broader relational framework that includes athlete-athlete relationships (AAR) and coach-team relationships (CTR) at the team level. Building upon the evidence that athletes’ perceptions of the CAR can meaningfully aggregate within teams (Chapter

Two), this work introduces the CTR as a distinct but interrelated construct, emphasising the role of the coach in shaping relational environments across the team as a collective.

Drawing from findings presented in this thesis, a framework is proposed (see Fig. 16) which captures the antecedents, characteristics, and consequences of the CTR. It delineates how adaptive (positive), and maladaptive (negative) relational environments emerge, operate, and impact both individual athletes and the broader team environment and team functioning. This framework represents an important step forward in theorising how relational processes function at multiple social levels within team sport, providing a platform for both future research and applied practice.

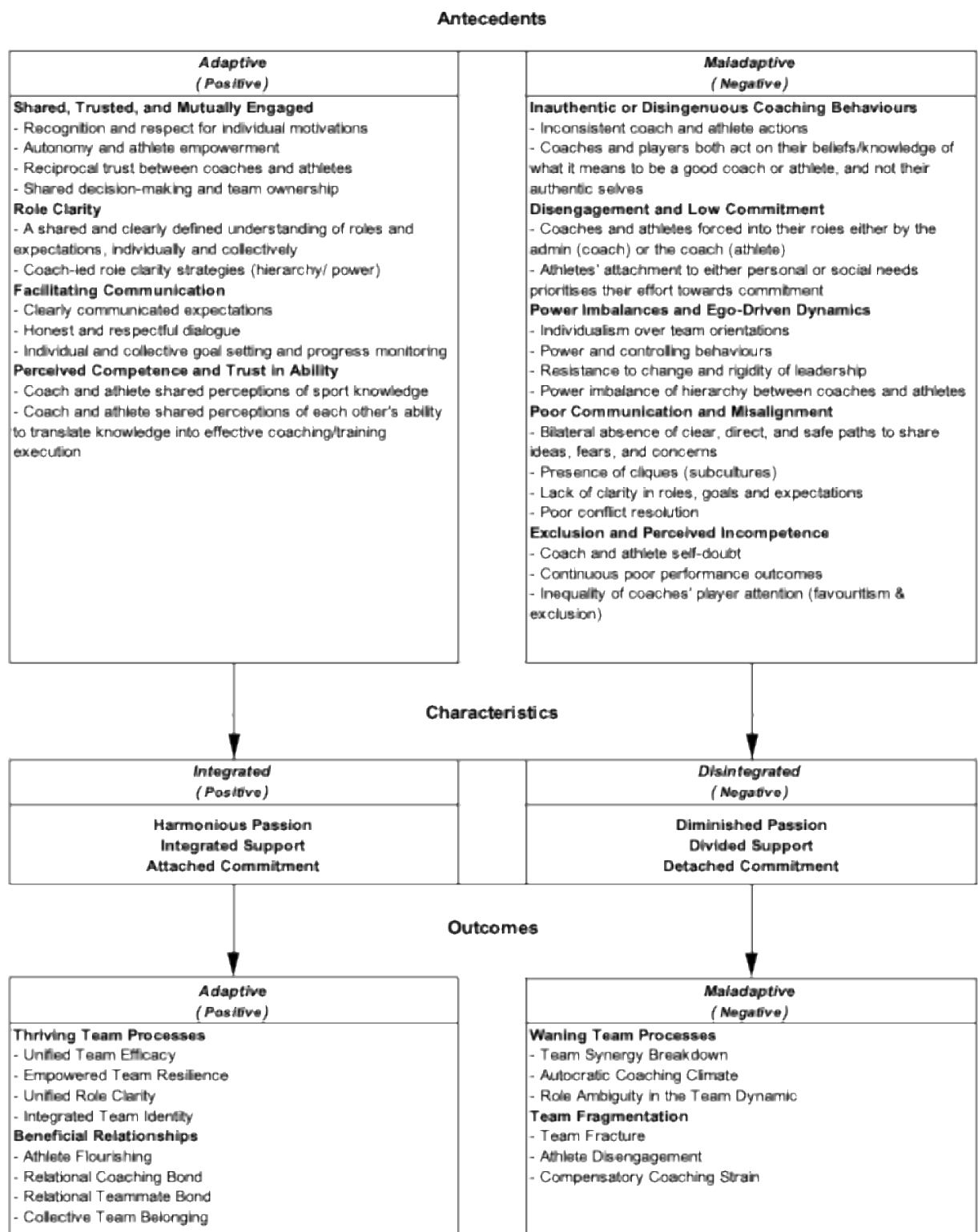


Figure 16. Conceptual framework of the Coach-Team Relationship (CTR) showing the antecedents, characteristics, and consequences of adaptive (positive) and maladaptive (negative) relational factors.

The proposed framework highlights the dynamic interplay between antecedents (e.g., communication quality, perceived competence, power dynamics), relational characteristics (e.g., passion, support, commitment), and consequences (e.g., thriving or waning team processes, flourishing or disengaging). By capturing both positive and negative manifestations of CTRs (framed respectively as relational integration and relational disintegration), this work advances a more nuanced understanding of the complexity in coach-led team environments.

Importantly, this thesis advances a novel conceptualisation of relational cohesion and relational disintegration as emergent properties of team-level relational environments. Relational cohesion describes an environment in which shared trust, passion, commitment, and mutual support (between coaches and athletes and among teammates) foster a relational environment where individuals feel secure, valued, and able to take interpersonal risks without fear of exclusion, blame, or retaliation. In contrast, relational disintegration reflects environments characterised by divided loyalties, role ambiguity, diminished collective passion, and fractured social bonds. This conceptual development offers a relationally attuned perspective on team functioning, moving beyond traditional task cohesion, social cohesion, and conflict constructs that have predominated within the sport psychology literature.

The thesis results and this proposed framework position the CTR as an essential complement to the CAR and AAR within the broader ecology of sport teams. They call for a redirection or at least extension in how relational processes are theorised, assessed, and developed in coaching practice, recognising the systemic and emergent nature of relational quality in team settings.

Implications for Assessment and measurement

A significant contribution of this thesis is the identification of the need to operationalise the Coach-Team Relationship (CTR) as a distinct, measurable, and seemingly multi-dimensional construct. Doing so will advance efforts to capture complex relational dynamics within team sport contexts (Côté et al., 2014; Eys et al., 2015). While relational constructs such as the Coach-Athlete Relationship (CAR) have been widely assessed through validated instruments, most notably the Coach-Athlete Relationship Questionnaire (CART-Q; Jowett & Ntoumanis, 2004; Jowett, 2007), there remains no established measure specifically designed to assess relational quality between coaches and the team as a collective (Fransen et al., 2017).

Building upon the content and structure of the CART-Q, one potential route for CTR scale development involves adapting existing dyadic items (e.g., rewording “I feel close to my coach” to “Our team feels close to the coach”) and/or generating new items with strong face validity to reflect team-directed perceptions. These items could be generated by experts in sport psychology, but also suggested by coaches and athletes. Moreover, the rich content provided in this thesis (stemming from the interviews) also provide a source of item content.

Establishing construct validity through psychometric evaluation will be essential to ensure the CTR-Q captures the intended team-level relational environment (Dunn, 1999; Jones, 2022). Based on the findings of this thesis, such a measure would be hypothesised to include three subscales (Passion, Support, and Commitment), each with positive and negative poles (e.g., Harmonious vs. Diminished Passion), forming the basis of a potential higher-order CTR quality factor.

Beyond initial scale development, predictive validity should be examined in relation to key relational processes (e.g., shared emotional connection, communication, trust; Jowett, 2007; Felton & Jowett, 2015) and outcomes (e.g., role clarity, team identity, interpersonal security; Eys & Carron, 2001; Fransen et al., 2015). Broader outcome constructs such as team cohesion (Carron et al., 2002), collective flourishing (Fransen et al., 2015), and relational strain (Wachsmuth et al., 2018) may also serve as meaningful validation outcomes.

However, challenges in the development and testing of a CTR-Q are anticipated. First, measuring emergent team-level phenomena like the CTR requires demonstrating sufficient within-team agreement to justify aggregation. This aligns with Study 1 of the thesis, which employed ICC(1) and ICC(2) to support team-level analysis. Second, any CTR measure must be sensitive to the dynamic and evolving nature of relational environments. As shown in research on the CAR (Wachsmuth et al., 2018) and leadership perceptions (Fransen et al., 2017), team relational quality may fluctuate in response to contextual and interpersonal events. Repeated assessment across a season, as part of a longitudinal design, could enhance both the validity and practical utility of CTR measurement (Clark & Watson, 2016; Felton & Jowett, 2015).

Importantly, while this thesis supports the conceptualisation of the CTR as distinct from the CAR, the potential measurement overlap between these constructs warrants critical consideration. Athletes' perceptions of the CTR may be influenced by their individual CAR experiences, potentially leading to a conflation of the two constructs. To prevent this, future scale development should explicitly frame items around the collective, rather than individual, relational experience (e.g., "Our team

feels supported by the coach”). Moreover, discriminant validity testing will be critical to show that CTR captures relational variance that is not merely a summation of dyadic perceptions (Dunn, 1999; Jones, 2022).

Finally, the development of a Team Relationship Questionnaire (TR-Q), based on the tripartite model proposed in this thesis, represents a broader and more ambitious goal. This measure would integrate subscales assessing:

- The Coach-Athlete Relationship (CAR), using instruments such as the CART-Q (Jowett & Ntoumanis, 2004)
- The Coach-Team Relationship (CTR), via a newly developed CTR-Q
- The Athlete-Athlete Relationship (AAR), for which no standardised, validated instrument currently exists.

Although peer dynamics have been explored through related constructs (e.g., peer motivational climate [Ntoumanis & Vazou, 2005], peer acceptance [Smith et al., 2006], social cohesion [Carron et al., 1985], and teammate trust [Dirks, 2000]), no dedicated “Athlete-Athlete Relationship Questionnaire” (AAR-Q) yet exists.

Developing this tool would be essential to assessing the third strand of the tripartite relational framework. Further qualitative work specifically focused on the nature and features of the athlete-athlete relationship would be warranted before quantitative work takes place. The construction of a multidimensional TR-Q would represent a major advance for relational sport psychology, enabling researchers and practitioners to holistically assess and monitor relational climates across the full spectrum of team relationships.

Practical Implications

It is acknowledged that the results emanating from this thesis are preliminary and exploratory, given the creation and early conceptualisation of the CTR construct within the cohesion framework (Carron, 1992). In the tradition of construct development within sport psychology, such as the evolution of the CAR framework (e.g., Jowett & Cockerill, 2003), initial findings serve as a critical starting point but require further empirical validation and replication across diverse contexts to establish generalisability and robustness (Felton & Jowett, 2013). Highlighting the preliminary nature of these findings is particularly important in a doctoral thesis, where new constructs are introduced and early evidence provided (Bloomberg & Volpe, 2018; Morse et al., 1998).

Assuming the present findings are consonant with what is found in future research, this thesis offers several important practical implications for coaching practice, coach education, team development, and organisational structures within team sport. Recognising and actively fostering high-quality CTRs may serve as a key lever for enhancing team functioning, athlete development, and retention in sport, paralleling evidence from research on the coach-athlete relationship (Davis & Jowett, 2014; Jowett, 2007) and leadership processes in teams (Fransen et al., 2015).

Coach Education Programmes

The results highlight the need for coach education programmes to address not only the dyadic CAR (e.g., Felton & Jowett, 2015; Jowett & Poczwardowski, 2007), but also the broader CTR. Current coach training often focuses heavily on technical and tactical instruction or one-on-one interpersonal skills. However, the relational environment that a coach creates across the entire team is equally critical and should

be systematically addressed within training curricula. Programmes should include modules on fostering shared passion, support, and commitment at the team level, promoting relational integration, and preventing relational disintegration.

Training coaches to recognise early signs of divided support, diminished passion, or detached commitment within the team could be particularly valuable. Furthermore, education around managing power dynamics, fostering interpersonal security and emotional trust, and encouraging open, authentic communication within the team could help prevent the emergence of maladaptive relational environments, consistent with principles highlighted in effective team-building interventions (e.g., Carron & Spink, 1993; Eys et al., 2009).

Teams and Organisations

At the organisational level, such as schools, clubs, and sports organisations, the present findings suggest that greater emphasis should be placed on monitoring and supporting team-wide relational environments (Fransen et al., 2015; Leo et al., 2015; Smith et al., 2013). In addition to evaluating coaching effectiveness based on team performance (Côté & Gilbert, 2009; Lyle, 2002) or individual athlete feedback (Felton & Jowett, 2015; Jowett, 2007), organisations could consider incorporating relational environment assessments into their evaluative frameworks. Established approaches within organisational psychology, such as team climate inventories and relational quality assessments (e.g., Edmondson, 1999; Kozlowski & Ilgen, 2006), provide a valuable foundation that could be adapted to the sporting context to systematically monitor team relational functioning. Periodic administration of surveys assessing perceptions of the coach-team relationship could help organisations identify relational

risks before they manifest into performance declines, athlete dissatisfaction, or retention issues (Fransen et al., 2017; Kozlowski & Ilgen, 2006).

Organisations might also support relationally focused professional development initiatives, encouraging coaches to engage in reflective practice regarding their team-wide relational approaches (Cushion et al., 2010; Gilbert & Trudel, 2001). Cultivating relational integration within teams could contribute not only to enhanced athlete satisfaction and well-being but also to the development of more resilient, cohesive, and high-performing teams over time.

Coach Self-Assessment

The development of a practical tool to enable coaches to self-assess their relational impact at the team level would also be beneficial (Gilbert & Trudel, 2001; Gould et al., 1999). Adapted self-reflection questionnaires, informed by sport psychology research on reflective practice (e.g., Cushion et al., 2010; Knowles et al., 2001), and based on the dimensions identified in this thesis (passion, support, and commitment), could help coaches critically evaluate the relational environments they are fostering (Gilbert & Trudel, 2001; Jones et al., 2004). Such reflection could guide adjustments to leadership styles, communication strategies, and relationship-building practices during a season (Callary et al., 2013; Vella et al., 2013). Additionally, encouraging coaches to seek team-level feedback from athletes at multiple time points during the season could foster adaptive coaching behaviours and relational growth, reinforcing the principle that relational environments are dynamic and co-constructed (Jowett & Cockerill, 2003; Lorimer & Jowett, 2009; Stebbings et al., 2012).

Applications in Youth Sport

In youth sport specifically, prioritising the development of relationally secure and relationally integrated environments could have a major impact on reducing athlete dropout. The findings of this thesis suggest that relational environments characterised by trust, clear communication, shared motivation, and collective identity not only enhance team performance but also support athlete flourishing and enjoyment. Embedding relational competencies into youth coaching curricula and fostering environments that attend to the CTR could contribute meaningfully to healthier, more sustainable sport experiences for young athletes.

Future Research Directions

The findings of this thesis open multiple avenues for future research aimed at deepening and extending the understanding of the CTR within sport psychology and coaching science.

First, as mentioned above and central to subsequent quantitative research, there is a critical need to develop and validate a Coach-Team Relationship Questionnaire (CTR-Q). Such a measure should be grounded in the dimensions identified in this thesis (passion, support, and commitment) and capture both positive (integrated) and negative (disintegrated) manifestations of the CTR. Future measurement work should include rigorous assessments of the factor structure, construct validity, reliability, and tests of within-team agreement and aggregation metrics (e.g., ICCs; Bliese, 2000; Eys et al., 2009; Kline, 2023) to ensure the measure captures multi-dimensional (and potentially hierarchical) team-level relational environments rather than only individual-level perceptions.

Second, cross-context research is needed to explore the generalisability of CTR findings across different sport levels (e.g., recreational, elite), developmental stages (e.g., youth, collegiate, professional), cultural contexts, and gendered coaching environments. Relational norms, power dynamics, and communication styles may differ across contexts, potentially shaping the emergence and consequences of CTRs in meaningful ways. Cross-cultural validation of the CTR framework and measurement tools would be an important step toward establishing its broader applicability.

Third, longitudinal studies could help to examine how CTRs evolve over time. Relational environments are not static; they can strengthen or deteriorate across a season, particularly in response to success, failure, leadership changes, or interpersonal events. Tracking CTR development longitudinally would allow researchers to map trajectories of relational integration and disintegration and better understand their antecedents, consequences, and mechanisms of change (e.g., Appleton et al., 2016).

Building from this, future intervention research represents a critical opportunity to apply emerging knowledge about CTRs in practice.

Fourth, interventions could be developed and implemented to foster adaptive CTRs. These might include relational coaching workshops, communication training, leadership development modules (e.g., Fransen et al., 2015; Wachsmuth et al., 2018), or interventions based on motivational climate frameworks, such as Empowering Coaching (Appleton & Duda, 2016; Duda, 2013), aimed at strengthening shared passion, support, and commitment within teams. Research could then examine the effects of such interventions on team functioning (e.g., task

cohesion; Felton & Jowett, 2015), athlete well-being (e.g., Curran et al., 2015), and athlete retention (e.g., Isoard-Gautheur et al., 2016).

Finally, a more comprehensive understanding of CTR development would benefit from greater attention to the athlete's active role in shaping the relational environment. While this thesis primarily focused on the coach's influence, it is likely that athletes' behaviours, engagement styles, leadership roles, and group dynamics also co-construct the relational environment. Investigating the bidirectional and dynamic nature of CTR development would enhance theoretical models of relational environments and deepen understanding of how teams collectively build (or erode) relational quality over time.

These directions offer a robust and actionable agenda for advancing relational coaching theory, measurement, and practice within team sport environments.

Limitations

While this thesis provides novel and important contributions to the study of relational coaching in team sport, several important limitations warrant acknowledgement.

First, the specificity of the sample presents limitations regarding generalisability (Braun & Clarke, 2013; Smith, 2018). The participants in both the quantitative and qualitative phases were drawn from an independent high school in the United States. Although this context offered valuable insights into interscholastic school sport environments, caution should be exercised in extending findings to other settings, such as collegiate, elite, or community sport, or to different cultural contexts where coaching practices and relational norms may differ (Felton & Jowett, 2013; Jowett & Cockerill, 2003; Poczwadowski et al., 2006). In particular, it is plausible that

the nature and salience of the CTR may vary across age groups and performance levels, with adult teams, elite squads, or recreational settings potentially placing different relational demands on coaches and athletes. As suggested above, future research should seek to systematically replicate and extend these findings across diverse sporting levels, developmental stages, and sociocultural contexts (e.g., Davis & Jowett, 2014; Jowett & Nezlek, 2012).

Second, although the reliance on self-report and retrospective interviews was appropriate for capturing participants' lived experiences, it introduces the possibility of response bias and memory effects (Bradburn et al., 1987; Podsakoff et al., 2003). While reflexive thematic analysis enabled participants' narratives to be explored in depth (Braun & Clarke, 2006; Braun et al., 2016), it is acknowledged that social desirability and recall biases may have influenced how relational experiences were described (Podsakoff et al., 2003; Tourangeau & Yan, 2007). Incorporating complementary data sources, such as observational methods (Angrosino, 2016; Sparkes & Smith, 2014) or reflective journaling (Elliott, 1998; Smith & McGannon, 2018), could strengthen future investigations of CTR development and dynamics by providing triangulation and enhancing trustworthiness.

Third, although the sample size was sufficient for conducting multilevel modelling analyses (Hox et al., 2010; Maas & Hox, 2005), the statistical power of the quantitative study was limited for detecting more nuanced effects (Maas & Hox, 2005; Snijders & Bosker, 2012), particularly cross-level interactions, which are known to require substantially larger samples for reliable estimation (Aguinis et al., 2013). Future studies employing larger samples across a greater number of teams would

enable more detailed and nuanced exploration of team-level relational processes and outcomes (e.g., Fransen et al., 2015; Leo et al., 2015).

Fourth, there are inherent tensions between the postpositivist and constructivist strands underpinning the thesis's mixed-methods design. While a pragmatic philosophical approach allowed for the integration of quantitative and qualitative methods, differences in epistemological assumptions about the nature of relational constructs may have influenced how findings were interpreted. Future research may benefit from exploring the implications of differing philosophical orientations when investigating complex social phenomena such as relational environments. Moreover, researchers could adopt more integrated mixed-method designs within a single study, such as sequential explanatory (QUAN → QUAL), sequential exploratory (QUAL → QUAN) (Creswell & Creswell, 2017), or embedded mixed-method approaches, to capture both the breadth and depth of relational dynamics over time and better reconcile divergent philosophical perspectives (Creswell & Plano-Clark, 2011; Teddlie & Tashakkori, 2009).

While longitudinal designs have been employed separately in quantitative (e.g., Felton & Jowett, 2015) and qualitative (e.g., Wachsmuth et al., 2018) studies of relational constructs in sport psychology, fully integrated longitudinal mixed-method designs remain largely absent from the empirical literature. Although scholars have conceptually advocated for the application of mixed-method frameworks to relational phenomena (e.g., Poczwardowski et al., 2006), empirical examples are limited. The present thesis similarly highlights the need for future research to adopt longitudinal mixed-method designs to more comprehensively capture the evolving, dynamic

nature of coach-team relational environments across different phases of the sport season.

Finally, the positionality of the lead researcher as a practitioner, an insider/outsider (Dwyer & Buckle, 2009), and a relationally invested interviewer (Berger, 2015; Finlay, 2002) may have shaped the processes of data collection and interpretation (Finlay, 2002; Malterud, 2001). Although reflexivity was actively practised throughout the research, it is acknowledged that complete neutrality is neither possible nor desirable within qualitative inquiry (Finlay, 2002; Lincoln & Guba, 1985). Instead, positionality can be viewed as a source of depth and insight, provided that it is accompanied by ongoing critical reflection and self-awareness (Finlay, 2002; Tracy, 2010).

Despite these limitations, the conceptual advances, methodological rigour, and integration of multi-method findings within this thesis offer a strong foundation for future research and applied practice in the study of the coach-team relationship and associated dynamics within team sport.

Conclusion

This thesis advances the understanding of relational coaching within team sport by establishing the coach-team relationship (CTR) as a distinct and meaningful construct beyond the traditional dyadic coach-athlete relationship (CAR). Through a multi-method exploration, the research demonstrated that relational factors at the team level are not only perceivable to athletes and coaches but have significant implications for team functioning, athlete well-being, and the overall sport experience.

The findings highlighted how integrated (positive) CTRs, marked by shared passion, support, and commitment, foster thriving team processes and athlete flourishing, whereas disintegrated (negative) CTRs contribute to team fragmentation and athlete disengagement. The conceptual framework proposed in this thesis offers a foundation for further theoretical development, measurement innovation, and applied practice in relational coaching.

Through the identification of the characteristics, antecedents, and consequences of CTRs, this work contributes to a more comprehensive understanding of how coaches shape, and are shaped by, the relational environments they cultivate within teams. Beyond advancing theoretical knowledge, the findings offer practical insights for coach education, team development initiatives, and organisational strategies aimed at enhancing relational quality and promoting athlete flourishing.

In sum, this thesis's conceptual and nuanced contributions provide a platform for a richer, more systemic understanding of relational processes in team sport. By recognising the collective, dynamic, and emergent nature of relational environments, future research and practice can move toward creating healthier, more connected, and more successful sport experiences for athletes and teams alike. In doing so, this thesis not only lays the groundwork for future relational research in sport but also invites a reimagining of how relational quality is cultivated and sustained within the complex social ecosystems of team sport environments.

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LIST OF APPENDICES

APPX A - HEAD COACH CONSENT



UNIVERSITY OF
BIRMINGHAM

PROJECT INFORMATION

Exploring the nature, features and potential consequences of coach-team relationships in sport.

Dear Head of School/ Athletics

We, a team of sport researchers from the University of Birmingham in the UK, are conducting research to explore the relationship of the coach to his/her team and also the relationship of the team to their coach. This project will explore potential constructs within the coach-team relationship and how it is described, and what contributes to positive or less positive coach-team relationships. We will also explore the consequences of coach-team relationships that vary in quality.

We would like to invite your school to participate in this project. Specifically, we would like to invite current coaches and athletes from grades 9-12 to participate in this research. If you choose to take part there will be two forms of data collection:

1. Athletes will be asked to complete a questionnaire measuring their: perceptions of the coach-created motivational climates, coach-athlete relationships, behaviour regulation in sport, psychological needs, anxieties, enjoyment, intentions to drop-out/continue, vitality, self-worth and youth sport environments. The questionnaire will take approximately 30-40 minutes to complete.
2. 2 coaches and 2 athletes from the Varsity team sports: Basketball (B&G), Baseball, Softball, Soccer (B&G) will take part in an audio recorded interview that will provide coaches and athletes with an opportunity to provide a more in-depth analysis of the coach-team relationship. The interviews will vary in length but will last approximately 60 minutes.

For participation in this research it is essential that we have consent of the head of athletics, coaches and the students as well as assent for students under 16 years of age).

By agreeing to participate in this research the coaches and athletes are agreeing to their data being used for scientific purposes and possibly published in a scientific journal. All data collected will be kept confidential, stored securely at the University of Birmingham and only viewed by the researchers working on the project. Your

coaches' and athletes' involvement in the research is voluntary and they are free to withdraw from this study at any point up to one month following the last data collection. To withdraw from this study, we request that you/they write to us using the contact details provided. If the participants choose to withdraw, their data will be destroyed.

If you have any queries or would like to discuss the research further, please feel free to contact the lead researcher Samuel John Booth whose details can be found below. Thank you for taking the time to read this letter.

Yours truly,
Samuel John Booth
404-219-7321
Sxb1531@student.bham.ac.uk

Consent

Study: Exploring the nature, features and potential consequences of coach-team relationships in sport.

Lead Researcher: Samuel J Booth

Supervisors: Professor Joan Duda and Dr. Paul Appleton

PLEASE READ THE FOLLOWING STATEMENTS AND SIGN YOUR INITIALS IN THE BOXES IF YOU AGREE

- | | |
|---|--------------------------|
| 1. I confirm that I have read the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. | ☐ |
| 2. I understand that participation is voluntary and that participants may withdraw at any time up to fourteen days following their invitation to the project without giving any reason. | ☐ |
| 3. I understand that student-athletes will participate in the collection of data by completing a questionnaire and participating in audio recorded interviews exploring coach-team relationships. | ☐ |
| 4. I understand that coaches will have the opportunity to participate in the audio recorded interviews exploring the coach team relationship. | ☐ |
| 5. I understand that all data collected will be stored securely at the University of Birmingham, UK. | ☐ |
| 6. I understand that the information collected about my coaches and students may be used to support other research in the future. | ☐ |
| 7. I understand that this project is compliant with the UK's Data Protection Act 2018 | ☐ |
| 8. I agree to provide access to my coaches and student-athletes. | ☐ |

Name of Participant

Date

Signature

APPX B - STUDY 1 - STUDENT-ATHLETE CONSENT FORM



UNIVERSITY OF
BIRMINGHAM

STUDY INFORMATION

Exploring the nature, features and potential consequences of coach-team relationships in sport.

Dear Student-athlete,

We would like to invite you to take part in a research study. Before you decide if you would like to take part you need to understand what the study is about and what you will be asked to do. Please take time to read the following.

The aim of the study is to find out about student-athletes' of their relationship with the coach to his/her team and also the relationship of the team to their coach. It is hoped that the information collected will help us to understand the constructs that may exist within a coach-team relationship and lead to future research on this topic.

If you choose to take part, we will ask you to fill out one questionnaire that will take approximately 30 minutes to complete. The questionnaire will ask you about coaching environments, coach-athlete relationships, why you play your sport, your feelings when participating in sport, intentions to drop-out/or continue, psychological well-being and youth sport environments.

Your school has agreed for you to take part in this project, but you can still choose not to complete the questionnaire. Likewise, you can return a blank questionnaire or omit answering some questions if you wish to do so.

For you to take part in the research, we must have your signed assent (under 17) and signed consent (18+). If you would like to take part please sign the attached assent or consent form. By agreeing to take part in the research you are agreeing that your answers can be used for science and possibly published in a scientific journal, but your name will not be used against any of your answers. It is your choice if you want to take part. You are free to drop out from the project at any point up to one month after completing the questionnaire. If you would like to drop out from the project, we ask that you (or your parent) contact us using the contact details below.

If you have any queries or would like to discuss the research further, please feel free to contact Sam Booth at the University of Birmingham whose details can be found below. Thank you for taking the time to read this letter.

Yours truly,

Samuel J Booth
404-219-7321
Sxb1531@student.bham.ac.uk

Consent

Study: Exploring the nature, features and potential consequences of coach-team relationships in sport.

Lead Researcher: Samuel J Booth

Supervisors: Professor Joan Duda and Dr. Paul Appleton

PLEASE READ THE FOLLOWING STATEMENTS AND SIGN YOUR INITIALS IN
THE BOXES IF YOU AGREE

- | | |
|--|--------------------------|
| 1. I confirm that I have read the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. | ☐ |
| 2. I understand that my participation is voluntary and that I may withdraw at any time up to one month following the completion of the questionnaire. | ☐ |
| 3. I understand that as a student-athletes I will participate in the collection of data by completing a questionnaire. | ☐ |
| 4. I understand that all data collected will be stored securely at the University of Birmingham, UK. | ☐ |
| 5. I understand that the information collected about me may be used to support other research in the future. | ☐ |
| 6. I understand that this project is compliant with the UK's Data Protection Act 2018 | ☐ |
| 7. I agree to take part in the above study. | ☐ |

Name of Participant

Date

Signature

Assent (under 17 years of age)

Study: Exploring the nature, features and potential consequences of coach-team relationships in sport.

Lead Researcher: Samuel J Booth

Supervisors: Professor Joan Duda and Dr. Paul Appleton

PLEASE READ THE FOLLOWING STATEMENTS AND SIGN YOUR INITIALS IN THE BOXES IF YOU AGREE

1. I confirm that I have read the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that my participation is voluntary and that I may withdraw at any time up to one month following the completion of the questionnaire. ☐
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4. I understand that all data collected will be stored securely at the University of Birmingham, UK. ☐
5. I understand that the information collected about me may be used to support other research in the future. ☐
6. I understand that this project is compliant with the UK's Data Protection Act 2018 ☐
7. I agree to take part in the above study. ☐
8. As a minor participant in this study, I have received the legally required debrief form in accordance with the federal and state regulations for children's participation in research projects. ☐

Name of Participant

Date

Signature

Debrief:

As a minor participant in this study it is of ethical reasoning to provide a debrief following your participation in this study. This debrief will provide you with information regarding your safety and concerns.

- **In accordance to the Federal & State Regulations for Childrens participation in research projects:**
- Office for Human Research Protections (OHRP) makes available the full text of the federal regulations outlined by the Health and Human Services (HHS) regulations for the protection of human subjects in research (45 CFR 46), the Common Rule (45 CFR 46) Subpart A),
- The state of GA defines minors as those persons 17 years of age and under. The state of GA requires that for most research minors must sign an assent form and at least one parent/ legal guardian sign a consent form.
- However, under the HHS regulations waiver of parent/guardian permission may be granted as described in 46.116 and 46.408(b);
 - (1) The research involves no more than minimal risk to the subjects;
 - (2) The waiver of alteration will not adversely affect the rights and welfare of the subjects
 - (3) The research could not practicably be carried out without the waiver or alteration
 - (4) whenever appropriate, the subjects will be provided with additional pertinent information after participation (this debrief)
 - (5) Research conducted in the establishment or commonly accepted educational settings, that specifically involves normal educational practices that are not likely to adversely impact student's opportunity to learn required educational content or the assessment of educators who provide instruction
 - (6) Research that only includes interactions involving educational tests, survey procedure, interview procedure, or observation of public behaviour (including visual and auditory recording) if at least one of the following procedures are met.
 - (a) Information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained;
 - (b) Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects financial standing, employability, educational advancement or reputation.
- **Should you feel at any point you want or need psychological aid please reach out to your high school counselors or school nurse. Treatment will be made available to you.**

APPX C - STUDY 2 - STUDENT-ATHLETE CONSENT FORM



UNIVERSITY OF
BIRMINGHAM

STUDY INFORMATION

Exploring the nature, features and potential consequences of coach-team relationships in sport.

Dear Student-athlete,

We would like to invite you to take part in a research study. Before you decide if you would like to take part you need to understand what the study is about and what you will be asked to do. Please take time to read the following.

The aim of this study is to explore, in-depth your thoughts, feelings and experiences regarding the relationship of the coach to his/her team and also the relationship of the team to their coach. It is hoped that your responses to the interview questions will allow for a better understanding of team sports and the relationships between a coach an athlete and a team.

If you choose to take part, we will ask you to participate in an audio recorded interview that will take approximately 50 minutes to complete. The interview will explore your views regarding the nature, determinants and consequences of the coach-team relationship.

Your school has agreed for you to take part in this project, but you can still choose not to participate in the interview. Likewise, you can omit from answering some questions if you wish to do so.

For you to take part in the research, you must be a Varsity player with more than one year's experience working with your coach in your chosen team sport. We must have your signed assent (under 17) and signed consent (18+). If you would like to take part please sign the attached assent or consent form. By agreeing to take part in the research you are agreeing that your responses can be used for science and be possibly published in a scientific journal, but your name will not be used against anything you say. It is your choice if you want to take part. You are free to drop out/ request your answers to be withdrawn from being transcribed at any point up to one month after completing the interview. Once transcribed your request will be denied. If you would like to drop out from the project, we ask that you (or your parent) contact us using the contact details below.

If you have any queries or would like to discuss the research further, please feel free to contact Sam Booth at the University of Birmingham, UK whose details can be found below. Thank you for taking the time to read this letter.

Yours truly,

Samuel J Booth
404-219-7321
Sxb1531@student.bham.ac.uk

Consent

Study: Exploring the nature, features and potential consequences of coach-team relationships in sport.

Lead Researcher: Samuel J Booth

Supervisors: Professor Joan Duda and Dr. Paul Appleton

PLEASE READ THE FOLLOWING STATEMENTS AND SIGN YOUR INITIALS IN
THE BOXES IF YOU AGREE

1. I confirm that I have read the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that my participation is voluntary and that I may withdraw at any time up to one month following the completion of the interview. ☐
3. I understand that my audio responses will not be transcribed until 1 month has passed from the completion of my interview. I also understand that once my responses have been transcribed, I can no longer withdraw from the study. ☐
4. I understand that all data collected will be stored securely at the University of Birmingham, UK. ☐
5. I understand that the information collected about me may be used to support other research in the future. ☐
6. I understand that this project is compliant with the UK's Data Protection Act 2018 ☐
7. I agree to take part in the above study. ☐

Name of Participant

Date

Signature

Assent (under 17 years of age)

Study: Exploring the nature, features and potential consequences of coach-team relationships in sport.

Lead Researcher: Samuel J Booth

Supervisors: Professor Joan Duda and Dr. Paul Appleton

PLEASE READ THE FOLLOWING STATEMENTS AND SIGN YOUR INITIALS IN
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- | | |
|--|--------------------------|
| 1. I confirm that I have read the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. | ☐ |
| 2. I understand that my participation is voluntary and that I may withdraw at any time up to one month following the completion of the interview. | ☐ |
| 3. I understand that once my audio responses will not be transcribed until 1 month has passed from the completion of my interview. I also understand that once my responses have been transcribed, I may not request my them to be withdrawn from the study. | ☐ |
| 4. I understand that all data collected will be stored securely at the University of Birmingham. | ☐ |
| 5. I understand that the information collected about me may be used to support other research in the future. | ☐ |
| 6. I understand that this project is compliant with the Data Protection Act 2018 | ☐ |
| 7. I agree to take part in the above study. | ☐ |
| 8. As a minor participant in this study, I have received the legally required debrief form in accordance with the federal and state regulations for children's participation in research projects. | ☐ |

Name of Participant

Date

Signature

Debrief:

As a minor participant in this study it is of ethical reasoning to provide a debrief following your participation in this study. This debrief will provide you with information regarding your safety and concerns.

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Should you feel at any point you want or need psychological aid please reach out to your high school counselors or school nurse. Treatment will be made available to you.

APPX D - STUDY 2 - COACH CONSENT FORM



UNIVERSITY OF
BIRMINGHAM

STUDY INFORMATION

Exploring the nature, features and potential consequences of coach-team relationships in sport.

Dear Coach,

We would like to invite you to take part in a research study. Before you decide if you would like to take part you need to understand what the study is about and what you will be asked to do. Please take time to read the following.

The aim of this study is to explore, in-depth your thoughts, feelings and experiences regarding the relationship of the coach to his/her team and also the relationship of the team to their coach. It is hoped that your responses to the interview questions will allow for a better understanding of team sports and the relationships between a coach, an athlete, and a team.

If you choose to take part, we will ask you to participate in an audio-recorded interview that will take approximately 50 minutes to complete. The interview will explore your views regarding the nature, determinants and consequences of the coach-team relationship.

Your school has agreed for you to take part in this project, but you can still choose not to participate in the interview. Likewise, you can omit from answering some questions if you wish to do so.

For you to take part in the research, you must be a Varsity coach with more than one year's experience working with your team. If you would like to take part please sign the attached consent form. By agreeing to take part in the research, you are agreeing that your responses can be used for science and possibly be published in a scientific journal, but your name will not be used against anything you say. It is your choice if you want to take part. You are free to drop out/ request your answers to be withdrawn from being transcribed at any point up to one month after completing the interview. Once transcribed your request will be denied. If you would like to drop out from the project, we ask that you contact us using the contact details below.

If you have any queries or would like to discuss the research further, please feel free to contact Sam Booth at the University of Birmingham, UK, whose details can be found below. Thank you for taking the time to read this letter.

Yours truly,

Samuel J Booth
404-219-7321
Sxb1531@student.bham.ac.uk

Consent

Study: Exploring the nature, features and potential consequences of coach-team relationships in sport.

Lead Researcher: Samuel J Booth

Supervisors: Professor Joan Duda and Dr. Paul Appleton

PLEASE READ THE FOLLOWING STATEMENTS AND SIGN YOUR INITIALS IN
THE BOXES IF YOU AGREE

1. I confirm that I have read the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that my participation is voluntary and that I may withdraw at any time up to one month following the completion of the interview. ☐
3. I understand that once my audio responses will not be transcribed until 1 month has passed from the completion of my interview. I also understand that once my responses have been transcribed, I can no longer withdraw from the study. ☐
4. I understand that all data collected will be stored securely at the University of Birmingham, UK. ☐
5. I understand that the information collected about me may be used to support other research in the future. ☐
6. I understand that this project is compliant with the UK's Data Protection Act 2018 ☐
7. I agree to take part in the above study. ☐

Name of Participant

Date

Signature

APPX E - STUDY 1 - TEAM SPORT ATHLETE SURVEY



UNIVERSITY OF
BIRMINGHAM

Questionnaire

1. What is your age: _____ Years _____ Months
2. What is your Gender (tick one box only): Male ☐ Female ☐ Non-Binary ☐
3. Which of the following would you say best describes your ethnic/racial group? (tick one box only)

Non-Hispanic White	☐	Native Americans & Alaska Natives	☐
Hispanic or Latino	☐	Native Hawaiians & Other Pacific Islanders	☐
Asian	☐	Black or African American	☐
Other	☐	Other: _____	☐

For the purpose of the questions to follow, please select ONE TEAM and refer to/think about the HEAD COACH on that team when responding,

4. Pick the team you are referring to for this questionnaire today.

Level: JV ____ Or Varsity ____

5. On average, how many hours per week do you train and compete for this team?
____ hours/week

6. What is the name of your head coach for the team you selected today?

Head coach name: _____

7. On average, how many hours per week do you spend with this coach?
____ hours/week

Section A: This list describes what coaches say or do on their team. When giving your answers, think about what your main coach normally says or does. What do you think it was like with your coach most of the time during the last 3-4 weeks? Please circle the number which best represents what you think.

Coach-Created Motivational Climate: Appleton, P. R., Ntoumanis, N., Quested, E., Viladrich, C., & Duda, J. L. (2016). Initial validation of the coach-created Empowering and Disempowering Motivational Climate Questionnaire (EDMCQ-C). *Psychology of Sport and Exercise*, 22, 53-65.

When completing this section, think about what your coach has usually been like <i>during the last 3-4 weeks</i> .		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.	My coach encouraged athletes to try new skills.	1	2	3	4	5
4.	My coach was less friendly with athletes if they didn't make the effort to see things his or her way.	1	2	3	4	5
5.	My coach gave athletes choices and options.	1	2	3	4	5
6.	My coach tried to make sure athletes felt good when they tried their best.	1	2	3	4	5
7.	My coach substituted athletes when they made a mistake.	1	2	3	4	5
8.	My coach thought that it is important that athletes participate in their team because the athletes really want to.	1	2	3	4	5

9. My coach was less supportive of athletes when they were not training and/or playing well.	1	2	3	4	5
10. My coach could really be counted on to care, no matter what happened.	1	2	3	4	5
11. My coach gave most attention to the best athletes.	1	2	3	4	5
12. My coach yelled at athletes for messing up.	1	2	3	4	5
13. My coach made sure athletes felt successful when they improved.	1	2	3	4	5
14. My coach paid less attention to athletes if they displeased him or her.	1	2	3	4	5
15. My coach acknowledged athletes who tried hard.	1	2	3	4	5
16. My coach really appreciated athletes as people, not just as athletes.	1	2	3	4	5
17. My coach only allowed something we like to do at the end of training if athletes had done well during the session.	1	2	3	4	5
18. My coach answered athletes questions fully and carefully.	1	2	3	4	5
19. My coach was less accepting of athletes if they disappointed him or her.	1	2	3	4	5

20. My coach made sure that each athlete contributed in some important way.	1	2	3	4	5
21. My coach had his or her favourite athletes.	1	2	3	4	5
When completing this section, think about what your coach has usually been like during the last 3-4 weeks.					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
22. My coach only rewarded athletes with prizes or treats if they had played well.	1	2	3	4	5
23. My coach only praised athletes who performed the best during competition.	1	2	3	4	5
24. When my coach asked athletes to do something, he or she tried to explain why this would be good to do so.	1	2	3	4	5
25. My coach made sure everyone had an important role on the team.	1	2	3	4	5
26. My coach shouted at athletes in front of others to make them do certain things.	1	2	3	4	5
27. My coach thought that only the best athletes should play in a competition.	1	2	3	4	5

28. My coach threatened to punish athletes to keep them in line during training.	1	2	3	4	5
29. My coach listened openly and did not judge athletes personal feelings.	1	2	3	4	5
30. My coach let us know that all the athletes are part of the team's success.	1	2	3	4	5
31. My coach mainly used rewards/praise to make athletes complete all the tasks he or she set during training.	1	2	3	4	5
32. My coach encouraged athletes to help each other learn.	1	2	3	4	5
33. My coach tried to interfere in aspects of athletes lives outside of the team.	1	2	3	4	5
34. My coach thought that it is important for athletes to play their sport because they (the athletes) enjoy it.	1	2	3	4	5
35. My coach favoured some athletes more than others.	1	2	3	4	5
36. My coach encouraged athletes to really work together as a team.	1	2	3	4	5

Section B: This list explores your personal relationship with your main coach on your team. When giving your answers, think about the relationship with your main coach during the last 3-4 weeks? Please circle the number which best represents what you think.

Coach-Athlete Relationship Questionnaire: 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.

When completing this section, think about your relationship with your coach during the last 3-4 weeks.	Not at all			Half-way		Extremely	
1. Do you feel close to your coach?	1	2	3	4	5	6	7
2. Do you feel committed to your coach?	1	2	3	4	5	6	7
3. Do you feel that your sport career is promising with your coach?	1	2	3	4	5	6	7
4. Do you like your coach?	1	2	3	4	5	6	7
5. Do you trust your coach?	1	2	3	4	5	6	7
6. Do you respect your coach?	1	2	3	4	5	6	7
7. Do you appreciate the sacrifices your coach has experienced in order to improve his/her performance?	1	2	3	4	5	6	7
8. When I am coached by my coach, I you feel at ease?	1	2	3	4	5	6	7
9. When I am coached by my coach, I feel responsive to his/her efforts?	1	2	3	4	5	6	7
10. When I am coached by my coach, I am ready to do my best?	1	2	3	4	5	6	7
11. When I am coached by my coach, I adopt a friendly stance?	1	2	3	4	5	6	7

Section C: This section looks to explore team conflict within your team. Please **circle** the number that best indicates your feelings toward your team conflict on your team.

GCQ in Sport: Paradis, K., Carron, A., & Martin, L. (2014). Development and validation of an inventory to assess conflict in sport teams: The Group Conflict Questionnaire. *Journal of Sports Sciences*, 32(20), 1966-1978.

When completing this section, think about your feelings toward your team during the last 3-4 weeks.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. The team's ability to be successful is jeopardized because of heated disagreements during competition.	1	2	3	4	5
2. Strong disagreements during practice between members of our team disrupt our progress towards achieving team goals.	1	2	3	4	5
3. It is nearly impossible to function effectively because of the intensity of the disagreements between members of our team.	1	2	3	4	5
4. The extreme animosity associated with the disagreements among members of our team affects our performance.	1	2	3	4	5
5. The anger associated with the disagreements among members of our team affects our performance.	1	2	3	4	5
6. Members of our team have intense disagreements to the point of dysfunction.	1	2	3	4	5

7. There is tension among members of our team over disagreements about performance expectations.	1	2	3	4	5
8. Personal friction among members of our team leads to angry confrontations at social gatherings.	1	2	3	4	5
9. The heated disagreements among members of our team in social situations become personal.	1	2	3	4	5
10. Members of our team stop speaking to each other over personal disagreements in social situations.	1	2	3	4	5
11. Emotions run high in social situations about personal differences brought to light.	1	2	3	4	5
12. The negativity from personal disagreements makes it difficult for members of our team to be friends.	1	2	3	4	5
13. Members of our team have negative emotional confrontations that hinder the enjoyment of social events.	1	2	3	4	5
14. Disagreements at social gatherings escalate quickly that damages and tears our team apart.	1	2	3	4	5

Section D: This section looks to explore your feelings toward your team. Please **circle** the number that best indicates your feelings toward your team.

Youth Sport Environment Questionnaire: Eys, M., Loughhead, T., Bray, S. R., & Carron, A. V. (2009). Development of a cohesion questionnaire for youth: The Youth Sport Environment Questionnaire. *Journal of Sport and Exercise Psychology*, 31(3), 390-408.

When completing this section, think about your feelings toward your team during the last 3-4 weeks.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. We all share the same commitment to our teams goals.	1	2	3	4	5
2. I invite my teammates to do things with me.	1	2	3	4	5
3. As a team, we are all on the same page.	1	2	3	4	5
4. Some of my best friends are on this team.	1	2	3	4	5
5. I like the way we work together as a team.	1	2	3	4	5
6. I <u>do not</u> get along with the members of my team.	1	2	3	4	5
7. We hang out with one another whenever possible.	1	2	3	4	5
8. As a team, we are united.	1	2	3	4	5
9. I contact my teammates often (phone, messaging, internet)	1	2	3	4	5
10. This team gives me enough opportunities to improve my own performance.	1	2	3	4	5
11. I spend time with my teammates.	1	2	3	4	5
12. Our team <u>does not</u> work well together	1	2	3	4	5

13. I am going to keep in contact with my teammates after the season ends.	1	2	3	4	5
14. I am happy with my teams level of desire to win.	1	2	3	4	5
15. We stick together outside of practice.	1	2	3	4	5
16. My approach to playing is the same as my teammates.	1	2	3	4	5
17. We contact each other often (phone, messaging, internet).	1	2	3	4	5
18. We like the way we work together as a team.	1	2	3	4	5

Section E: The following items are concerned with how players on your team (and only the players) usually communicate with each other. Read each question and answer honestly. Please **circle** the number that best indicates your feelings toward your team.

Scale for Effective Communication in Sports Teams (SECTS-2): Sullivan, P. J., & Short, S. (2011). Further operationalisation of intra-team communication in sports: An updated version of the Scale of Effective Communication in Team Sports (SECTS-2). *Journal of Applied Social Psychology*, 41(2)

When our team communicates we...	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. ... Use Nicknames	1	2	3	4	5
2. ... Shout when upset	1	2	3	4	5
3. ... Get all problems out in the open.	1	2	3	4	5
4. ... Trust each other.	1	2	3	4	5
5. ...When disagreements arise, we try to communicate directly with those (with whom) we have a problem.	1	2	3	4	5
6. ... Communicate our feelings honestly.	1	2	3	4	5
7. ...Use slang that only team members would understand.	1	2	3	4	5
8. ...Get in 'each others faces' when we disagree	1	2	3	4	5
9. ...Use gestures that only team members would understand.	1	2	3	4	5
10. ...Communicate anger through body language.	1	2	3	4	5
11. ...Share thoughts with one another.	1	2	3	4	5
12. ...Show that we lose our temper.	1	2	3	4	5
13. ...Are willing to discuss our feelings.	1	2	3	4	5
14. ...Try to make sure all players are included.	1	2	3	4	5
15. ...Compromise with each other when we disagree	1	2	3	4	5

Section F: Please **circle** the appropriate number to indicate how well each of the reasons below reflects why you play your sport.

Behavioural Regulation In Sport: Lonsdale, C., Hodge, K., & Rose, E. A. (2008). The Behavioral Regulation in Sport Questionnaire (BRSQ): Instrument development and initial validity evidence. *Journal of sport and exercise psychology*, 30(3), 323-355.

I play my sport...	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Because I enjoy it.	1	2	3	4	5
2. Because the benefits are important to me (e.g., developing as a player, getting fit, playing with my teammates).	1	2	3	4	5
3. Because I would feel guilty if I quit.	1	2	3	4	5
4. Because people push me to play.	1	2	3	4	5
5. To win trophies.	1	2	3	4	5

I play my sport...	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
6. But I question why I continue.	1	2	3	4	5
7. Because I like it.	1	2	3	4	5
8. Because I value the benefits (e.g., learning new skills, being healthy, making friends etc).	1	2	3	4	5
9. Because I would feel ashamed if I quit.	1	2	3	4	5
10. To satisfy people who want me to play.	1	2	3	4	5
11. For the cups and medals.	1	2	3	4	5
12. But I question why I am playing this sport.	1	2	3	4	5

13. Because it is fun.	1	2	3	4	5
14. Because it teaches me self discipline.	1	2	3	4	5
15. Because I feel I must continue.	1	2	3	4	5
16. Because I feel pressure from other people to play.	1	2	3	4	5
17. Because I want to receive awards.	1	2	3	4	5
18. But I really don't know why anymore.	1	2	3	4	5
19. Because I find it exciting.	1	2	3	4	5
20. Because I learn things which are useful in my life.	1	2	3	4	5
21. Because I would feel like a failure if I quit.	1	2	3	4	5
22. Because if I don't other people will not be pleased with me.	1	2	3	4	5
23. But I wonder what's the point.	1	2	3	4	5

Section G: These statements relate to your feelings and experiences in your sport during the past 3-4 weeks. Please circle the number that best reflects how you felt during this period.

Athletes Psychological Needs: Quested, E., Ntoumanis, N., Viladrich, C., Haug, E., Ommundsen, Y., Van Hove, A., & Duda, J. L. (2013). Intentions to drop-out of youth soccer: A test of the basic needs theory among European youth from five countries. *International Journal of Sport and Exercise Psychology*, 11(4), 395-407.

During the <u>past 3-4 weeks</u> , in <i>my sport</i> ...	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I decided which activities I practiced.	1	2	3	4	5
2. I thought I was quite good at my sport.	1	2	3	4	5
3. I felt people supported me.	1	2	3	4	5
4. I had a say on what skills I worked on.	1	2	3	4	5

5. I was satisfied with what I did.	1	2	3	4	5
6. I felt people understood me.	1	2	3	4	5
7. It was my choice to play this sport.	1	2	3	4	5
8. I was skilful.	1	2	3	4	5
9. I felt people listened to my opinion.	1	2	3	4	5
10. I felt the freedom to do some things my own way.	1	2	3	4	5
11. I felt quite competent.	1	2	3	4	5
12. I felt people valued me.	1	2	3	4	5
13. I felt I performed very well.	1	2	3	4	5
14. I had some choice in what I did.	1	2	3	4	5
15. I think I did quite well.	1	2	3	4	5

Section H: For the following statements, please **circle** the number that best indicates how much you agree or disagree. When answering the statements, bear in mind **how you generally felt during the past 3-4 weeks playing your sport**.

Athlete enjoyment scale: Quested, E., Ntoumanis, N., Viladrich, C., Haug, E., Ommundsen, Y., Van Hove, A., & Duda, J. L. (2013). Intentions to drop-out of youth soccer: A test of the basic needs theory among European youth from five countries. *International Journal of Sport and Exercise Psychology*, 11(4), 395-407.

During the <u>past 3-4 weeks</u> , when participating in my sport...	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I enjoyed the activities.	1	2	3	4	5
2. I found my sport interesting.	1	2	3	4	5
3. I found that time flew by when I was doing my sport.	1	2	3	4	5
4. I had fun when doing my sport.	1	2	3	4	5

Section I: Here are some statements relating to **whether you intend to play your sport next season**. When providing your answers, **consider how you feel at the moment**. Remember, to please **circle** your answers and know that no one other than the researchers will see your answers, so please answer honestly.

Athletes Intentions to drop out: Quested, E., Ntoumanis, N., Viladrich, C., Haug, E., Ommundsen, Y., Van Hove, A., & Duda, J. L. (2013). Intentions to drop-out of youth soccer: A test of the basic needs theory among European youth from five countries. *International Journal of Sport and Exercise Psychology*, 11(4), 395-407.

How are you feeling <u>at the moment</u> ?	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I intend to drop out of my sport at the end of this season.	1	2	3	4	5
2. I plan to play my sport next season.	1	2	3	4	5
3. I am thinking of quitting my sport.	1	2	3	4	5
4. I would like to carry on with my current coach next season.	1	2	3	4	5

Section J: Below are a number of **statements relating to your everyday life (i.e., all the things you do)**, *not* just your sport participation. Please **circle** the number that best indicates the extent to which you agree or disagree with each of the following statements; bear in mind how *you* GENERALLY felt during the past 3-4 weeks.

Subjective Vitality Scale: Papaioannou, A. G., Appleton, P. R., Torregrosa, M., Jowett, G. E., Bosselut, G., Gonzalez, L., & Zourbanos, N. (2013). Moderate-to-vigorous physical activity and personal well-being in European youth soccer players: Invariance of physical activity, global self-esteem and vitality across five countries. *International Journal of Sport and Exercise Psychology*, 11(4), 351-364.

During the <u>past 3-4 weeks</u> , in my everyday life...	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I felt full of excitement.	1	2	3	4	5
2. I had high spirits.	1	2	3	4	5
3. I looked forward to each day.	1	2	3	4	5

4. I nearly always felt alert and awake.	1	2	3	4	5
5. I felt I had a lot of energy.	1	2	3	4	5

Section K: Below are some more statements relating to **how you felt about yourself in your everyday life (i.e., all the things you do)**, *not* just in your sport. Please **circle** the number that best indicates how true these statements are for you. When answering the statements, think about **how you GENERALLY felt over the past 3-4 weeks**.

Athletes self-worth: Papaioannou, A. G., Appleton, P. R., Torregrosa, M., Jowett, G. E., Bosselut, G., Gonzalez, L., ... & Zourbanos, N. (2013). Moderate-to-vigorous physical activity and personal well-being in European youth soccer players: Invariance of physical activity, global self-esteem and vitality across five countries. *International Journal of Sport and Exercise Psychology*, 11(4), 351-364.

During the <u>past 3-4 weeks</u> , in my everyday life I felt that...	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Overall, I had a lot to be proud of.	1	2	3	4	5
2. Overall, I was no good.	1	2	3	4	5
3. Most things I did, I did well.	1	2	3	4	5
4. Nothing I did ever seemed to turn out right.	1	2	3	4	5
5. Overall, most things I did turn out well.	1	2	3	4	5

APPX F - STUDY 2 - COACH INTERVIEW SCHEDULE



UNIVERSITY OF
BIRMINGHAM

Interview Schedule for Coaches

Purposes:

1. Examine whether the concept of a coach-team relationship has meaning, viability, and reflects a useful construct in the view of secondary school athletes and their coaches.
2. More specifically in the views of coaches and drawing from and potentially extending Jowett's (2007) coach-athlete relationship model, ascertain what is the nature (quality) of the coach-team relationship. Specifically, what are the affective/ emotions (Closeness), cognitive (Co-orientation), and behavioural (Complementarity) aspects/ characteristics/ features of this relationship when is it positive and when is it not.
3. To explore the perceived determinants and consequences of a positive/high quality as well as a negative/low quality coach-team relationship in the case of secondary school athletes and their coaches.
4. With the aim to further examine potential differentiation between concepts/conceptualisations, to determine whether coaches can distinguish and describe simultaneously experienced coach-team and coach-athlete (on that team) relationships that vary in their quality (positive versus negative and vice versa).
5. To explore the perceived impact of COVID-19 on both coach-athlete and coach-team relationships during a global pandemic.

Instructions:

For this study, you are asked to participate in an audio recorded interview. The interview will consist of 25 questions that will look to explore the relationship of you the coach to your team and also the relationship of the team to their you. The interview will last approximately 60 minutes. Please remember that you are participating in this study voluntarily and that you do not have to answer any questions that you do not want to. Please refer back to your copy of your consent form for more specifics regarding your rights. When answering the questions, please try to be as descriptive as possible with your answers.

Questions:

(a). In sport (and indeed in the field of sport psychology) we often refer to the relationship between an athlete and his or her coach and how important it is. In the work we are doing, we are interested in the relationship that a coach has with their *team as a whole* rather than the relationship with any particular athlete. Is this

relationship (with the team as a whole/group) important to you? why or why not? How would you describe this relationship from the perspective of being a coach?

(b) Let's think about the team's perspective.... do you think teams feel like they have a relationship with the coach as a group/ collective, beyond or separate from how they relate to their coaches as individual athletes? How would you describe this? Is this relationship important to the team, why or why not?

(c) Let's discuss more specifically the features or characteristics of a coach-team relationship that has high quality/is positive?

(c1) What do you, as a coach, feel in such a situation? What would be your emotions when you engage with or think about your team?

(c2) What kind of emotions/feeling does the team have when the coach-team relationship is positive?

(c3) What would you be thinking in this situation? That is, what are your thoughts when there is a close/positive relationship between yourself and the team?

(c4) Where is the team coming from in this situation? How do they think when their relationship to the coach is positive? How does what you are thinking align with what the team collectively thinks about/ focuses on?

(c5) How do you act or behave when the coach-team relationship is positive? What do you do?

(c6) And how does this relate to what the team does? What are the behaviours of the team when the coach-athlete relationship is positive? How do they tend to act?

(d) Now, let's talk about the features or characteristics of a coach-team relationship that has poor quality/is negative?

(d1) What do you, as the coach, feel in such a situation? What would be your emotions when you engage with or think about your team?

(d2) What are the emotions/feelings of the team when the coach-team relationship is not going well?

(d3) How are your thoughts when there is a poor relationship between yourself and the team? And how do your thoughts relate to what the team collectively thinks about/ focuses on?

(d4) What is the team thinking in such a situation? Where's their 'head'?

(d5) How do you act or behave when the coach-team relationship is negative? What do you do?

(d6) And how does this relate to what the team does? How does the tend to act when their relationship with the coach is negative/not good?

(e) Have you personally had an experience when you felt you had a very good relationship with the team as a group/ whole? Please tell me about this. Can you describe what this was like? What were the characteristics of this positive relationship?

(f) Have you had an experience when you felt you had a poor relationship with the team as a group/ whole? Please tell me about this. Can you describe what this was like? What were the characteristics of this negative relationship?

(g) In your view. What are the major implications or consequences of a *positive* coach-team relationship...for the team? For the coach?

(h) In your view. What are the major implications or consequences of a *poor* or negative coach-team relationship...for the team? For the coach?

(i) In your view. What facilitates or contributes to a *positive* coach-team relationship? What are the causes? Why does this happen?

(j) In your view. What facilitates or contributes to a *poor* or negative coach-team relationship? What are the causes? Why does this happen?

(k) When the coach-team relationship is not good. What can be done to improve the relationship?

(l) Final questions. Do you think it is possible to have a positive relationship with one or a few athletes on your team but your relationship with the team as a whole is not good? Why or why not? How could this happen?

(m) Do you think it is possible to have a poor relationship with one or a few athletes on your team, but your relationship with the team as a whole is positive? Why or why not? How could this happen?

END

Your responses have been very interesting and helpful. Thank you. Anything else you would like to say about the relationship between a coach and his/her team as a whole?

APPX G - STUDY 2 - STUDENT-ATHLETE INTERVIEW SCHEDULE



UNIVERSITY OF
BIRMINGHAM

Athletes

Purpose: this interview looks to:

1. Examine whether the concept of a coach-team relationship has meaning, viability, and reflects a useful construct in the view of secondary school athletes and their coaches.
2. More specifically in the views of these two groups and drawing from and potentially extending Jowett's (2007) coach-athlete relationship model, ascertain what is the nature (quality) of the coach-team relationship. Specifically, what are the affective/ emotions (Closeness), cognitive (Co-orientation), and behavioural (Complementarity) aspects/ characteristics/ features of this relationship when is it positive and when is it not.
3. To explore the perceived determinants and consequences of a positive/high quality as well as a negative/low quality coach-team relationship in the case of secondary school athletes and their coaches.
4. With the aim to further examine potential differentiation between concepts/conceptualisations, to determine whether athletes/coaches can distinguish and describe simultaneously experienced coach-team and coach-athlete (on that team) relationships that vary in their quality (positive versus negative and vice versa).
5. To explore the perceived impact of COVID-19 on both coach-athlete and coach-team relationships during a global pandemic.

Interview

Instructions:

For this study, you are asked to participate in an audio recorded interview. The interview will consist of 25 questions that will look to explore the relationship of you the coach to your team and also the relationship of the team to their you. The interview will last approximately 60 minutes. Please remember that you are participating in this study voluntarily and that you do not have to answer any questions that you do not want to. Please refer back to your copy of your consent form for more specifics regarding your rights. When answering the questions, please try to be as descriptive as possible with your answers.

Questions:

(a). In sport (and indeed in the field of sport psychology) we often refer to the relationship between an athlete and his or her coach and how important it is. In the work we are doing, we are interested in the relationship that a coach has with their *team as a whole* rather than the relationship with any particular athlete. Is this

relationship (with the team as a whole/group) important to you? why or why not? How would you describe this relationship from the perspective of being an athlete?

(b) Let's think about the team's perspective.... do you think teams feel like they have a relationship with the coach as a group/ collective, beyond or separate from how they relate to their coaches as individual athletes? How would you describe this? Is this relationship important to the team, why or why not?

(c) Let's discuss more specifically the features or characteristics of a coach-team relationship that has high quality/is positive?

(c1) What do you, as an athlete, feel in such a situation? What would be your emotions when your coach engages with or thinks about your team?

(c2) What kind of emotions/feeling does the team have when the coach-team relationship is positive?

(c3) What would you be thinking in this situation? That is, what are your thoughts when there is a close/positive relationship between the team and the coach?

(c4) Where is the team coming from in this situation? How do they think when their relationship to the coach is positive? How does the teams collective thinking align with what the coach collectively thinks about/ focuses on?

(c5) How does your coach act or behave when the coach-team relationship is positive? What do they do?

(c6) And how does this relate to what the team does? What are the behaviours of the team when the coach-athlete relationship is positive? How do they tend to act?

(d) Now, let's talk about the features or characteristics of a coach-team relationship that has poor quality/is negative?

(d1) What do you, as an athlete, feel in such a situation? What would be your emotions when your coach engages with or think about your team?

(d2) What are the emotions/feelings of the team when the coach-team relationship is not going well?

(d3) How are your thoughts when there is a poor relationship between the coach and the team? And how do your thoughts relate to what the team collectively thinks about/ focuses on?

(d4) What is the team thinking in such a situation? Where's their 'head'?

(d5) How do you act or behave when the coach-team relationship is negative? What do you do?

(d6) And how does this relate to what the team does? How does they tend to act when their relationship with the coach is negative/not good?

(e) Have you personally had an experience when you felt the coach had a very good relationship with the team as a group/ whole? Please tell me about this. Can you describe what this was like? What were the characteristics of this positive relationship?

(f) Have you had an experience when the coach felt they had a poor relationship with the team as a group/ whole? Please tell me about this. Can you describe what this was like? What were the characteristics of this negative relationship?

(g) In your view. What are the major implications or consequences of a *positive* coach-team relationship...for the team? For the coach?

(h) In your view. What are the major implications or consequences of a *poor* or negative coach-team relationship...for the team? For the coach?

(i) In your view. What facilitates or contributes to a *positive* coach-team relationship? What are the causes? Why does this happen?

(j) In your view. What facilitates or contributes to a *poor* or negative coach-team relationship? What are the causes? Why does this happen?

(k) When the coach-team relationship is not good. What can be done to improve the relationship?

(l) Final questions. Do you think it is possible for the coach to have a positive relationship with one or a few athletes on your team but their relationship with the team as a whole is not good? Why or why not? How could this happen?

(m) Do you think it is possible for the coach to have a poor relationship with one or a few athletes on your team, but their relationship with the team as a whole is positive? Why or why not? How could this happen?

END

Your responses have been very interesting and helpful. Thank you. Anything else you would like to say about the relationship between a coach and his/her team as a whole?

APPX H - ETHICS APPLICATION

UNIVERSITY OF BIRMINGHAM
APPLICATION TO USE PROGRAMME ERN_12-1558P
Social, environmental and motivational processes in sport, dance, PE and physical activity settings

WHO SHOULD USE THIS FORM:

The following researchers may apply to carry out work under approved Programme ERN_12-1558P:

- Staff of the University of Birmingham; or
- Supervisors of research postgraduate students enrolled at the University of Birmingham/or
- Visiting/honorary researchers at the University of Birmingham

Students undertaking undergraduate projects and taught postgraduates should refer to their Department/School for advice.

HOW TO USE THIS FORM

- The applicant should consider each section and indicate how the proposed work fits within the Programme, and all questions should be completed in full.
- Copies of the study-specific participant documentation (based upon the approved sample documentation) and any additional materials specific to the study should also be submitted with the application.
- Researchers wishing to use an approved Programme should submit their application to the Programme Lead in the first instance. The Programme Lead will submit the application to the relevant Ethics Committee once he/she is satisfied that the application is appropriate and of a sufficient standard for review.
Unless each application to use the Programme is submitted and reviewed in this way, it will not have ethical approval - it is not sufficient to rely upon the original Programme Approval alone.

NOTES

- Answers to questions must be entered in the space provided.
- An electronic version of the completed form should be submitted to the Research Ethics Officer, at the following email address: aer-ethics@contacts.bham.ac.uk. Please **do not** submit paper copies.
- If, in any section, you find that you have insufficient space, or you wish to supply additional material not specifically requested by the form, please put it in a separate file, clearly marked and attached to the submission email.

- If you have any queries about the form, please address them to the Research Ethics Team.



Before submitting, please tick this box to confirm that you have consulted and understood the following information and guidance and that you have taken it into account when completing your application:

- The information and guidance provided on the University's ethics webpages (<http://www.rcs.bham.ac.uk/ethics/index.shtml>)
- The University's Code of Practice for Research (http://www.as.bham.ac.uk/legislation/docs/COP_Research.pdf)

UNIVERSITY OF BIRMINGHAM
APPLICATION TO USE PROGRAMME ERN_12-1558P
Social, environmental and motivational processes in sport, dance, PE and physical activity settings

1. TITLE OF PROJECT

Exploring the nature, characteristics, and potential consequences of coach-team relationships as an important component of the motivational climate in sport.

2. INVESTIGATORS

a) PLEASE GIVE DETAILS OF THE PRINCIPAL INVESTIGATORS OR SUPERVISORS (FOR PGR STUDENT PROJECTS)

Name:	Title/first name/family name	Professor Joan Duda
Highest qualification & position held:		PhD Professor
School/department:		SportExR
Telephone:		0121 414 2737
Email address:		j.l.duda@bham.ac.uk

b) PLEASE GIVE DETAILS OF ANY CO-INVESTIGATORS OR CO-SUPERVISORS (FOR PGR STUDENT PROJECTS)

Name:	Title/first name/family name	Dr Paul Appleton
Highest qualification & position held:		PhD Teaching and Research Fellow

School/department:	SportExR
Telephone:	0121 414 2517
Email address:	p.appleton@bham.ac.uk

c) IN THE CASE OF PGR STUDENT PROJECTS, PLEASE GIVE DETAILS OF THE STUDENT

Name:	Title/first name/family name	Mr. Samuel Booth
Highest qualification & position held:		MSc - PhD Candidate
School/department:		SportEXR
Telephone:		+14042197321
Email address:		Sxb1531@student.bham.ac.uk

3. ESTIMATED DURATION OF PROGRAMME OF WORK

Estimated start date	October 2020
Estimated end date	December 2021

4. FUNDING

List the funding sources (including internal sources) and give the status of each source.

Funding Body	Approved/Pending/To be submitted
Self Funded	Approved

If applicable, please identify date within which the funding body requires acceptance of award.

Date

If the funding body requires ethical review of the research proposal at application for funding stage, please provide date of deadline for funding application.

Date

5. SUMMARY OF PROJECT

Describe the purpose, background rationale for the proposed project, as well as the hypotheses/research questions to be examined and expected outcomes. This description should be in everyday language that is free from jargon. Please explain any technical terms or discipline-specific phrases.

5.1 PURPOSE

+

A major focus of this Programme of Work (ERN_12-1558P) centres on both a qualitative and quantitative examination of the assessment, characteristics, and correlates of the motivational climate as manifested in sport and other physical activity settings. Past work has provided further insight into processes underlying the perceived motivational climate by supporting an interface between the coach-created motivational climate and particularly features of the relationship between the coach and each of his/her athletes on a team (Olympiou, Jowett, & Duda, 2008). The latter is operationalized in regard to Jowett's (2007) model that centres on the characteristics of the coach-athlete relationship in regard to its degree of closeness, mutual commitment and complementarity.

Previous research has demonstrated that perceptions of the motivational climate amongst athletes on a team are shared perceptions and emerge at a team as well as an individual level (eg., Gano-Overway et al., 2005). Such findings suggest that greater understanding of what are key underlying dynamics in the motivational climate manifested in team sports will stem from research addressing what are the fundamental features and implications (for the athlete and the team) of the relationship between the coach and his/her team as a whole.

The overarching purpose of the present research is to extend the literature on the motivational climate as well as Jowett's model by providing evidence regarding the concept of the coach-team relationship, its features and its implications in team sports. In this multi-method study, we will: (a) examine quantitatively, whether there is an interdependence between the views regarding the coach-athlete relationship amongst 2ry school athletes from the same team, (b) determine what are the individual athlete and team outcomes associated with both individual- and team-level effects of the coach-team relationship and ensuing motivational climate, and (c) qualitatively provide an in-depth description of coaches' and athletes' views regarding the nature, determinants and consequences of both positive and negative coach-team relationships.

5.2 BACKGROUND

Relevant to our previous and long-standing work on the motivational climate and pulling from Jowett's (2007) 3+1 C's model, the dimensions, assessment and consequences of the coach-athlete relationship have been thoroughly researched over the last twenty years in a variety of settings (Jowett and Meek, 2000; Jowett and Cockerill, 2002., 2003; Jowett and Ntoumanis, 2004; Jowett, 2007). Within this line of work, it has been demonstrated that both coaches and athletes do have a sense of and refer to the state and perspectives of the 'team' as a whole, in relation to the coach (Jowett and Timson-Katchis, 2005).

The larger sport psychology literature points to the concept and relevance of a team construct. A considerable amount of work has centred on strategies to team building and team spirit (Rhind, Jowett and Yang, 2012; Nicholls and Jones, 2013; Hampson and Jowett, 2014; Roberto, et al., 2019). Past empirical work employing multi-level analyses has demonstrated that concepts such as collective efficacy (Carron, 1982; Jowett, Shanmugam and Caccoulis, 2012; Hampson and Jowett, 2014), cohesion (Jowett, 2007; Cottingham et al., 2010), and the motivational climate (Jowett and Arthur, 2019) are shared perceptions within teams. That is, there are significantly stronger relationships or interdependencies between the views of players within a team when contrasted to the response of players from different teams. Measuring Jowett's 3+1 model, the CART-Q (Jowett and Ntoumanis, 2004) is designed to assess the quality of the relationship between the coach and an athlete. **One objective** of this multi-method project is to ascertain whether, when secondary school athletes respond to the CART-Q, there are shared perceptions of the closeness, commitment and complementarity of the coach-athlete relationship amongst those who are members of the same team when contrasted with secondary school athletes who are members of another team. In regard to this objective and extending findings stemming from this programme of work to date, we will administer the CART-Q along with an assessment of the perceived motivational climate along with additional (i.e., not included in previous studies) multiple other scales tapping *team* relevant outcomes (i.e., team cohesion, team conflict, team communication, team efficacy), to approximately 600 participating secondary school athletes in the USA on approximately 60 different teams.

This research also entails the use of qualitative methods, via which we will in one-to-one interviews and focus groups, examine in an in-depth manner secondary school athletes' and their coaches' views regarding the nature, determinants and consequences of the coach-team relationship (when positive/optimal and when not). Such detailed information will lead to a more complete and relevant model of the coach-team relationship as connected to the motivational climate in team sports, rather than simply extrapolating from Jowett's 3+1 C's model of the coach-athlete relationship. A longer-term aim of the dissertation of the PhD student associated with this application (i.e., Samuel Booth) is to develop a valid and reliable measure of the coach-team relationship. The findings stemming from the qualitative facet of the research described here will provide item content for initial phases of this instrument development work.

Due to the timing of this research we will also qualitatively explore the potential impact of a world pandemic on the coach-team relationship and the coach-athlete relationship during the qualitative component of this project. The main purpose of adding this question onto the questionnaire lies in the possibility of future research, where data collected during a global pandemic may lead toward greater understanding of the more external, widespread, uncertain

5.3 HYPOTHESES/RESEARCH QUESTIONS

1. Using multilevel analysis of secondary school student-athletes' responses to the multi-scale CART-Q, examine whether the concept of a coach-athlete relationship holds at the team level in these analyses and ascertain the correlates of such.
2. In the views of coaches and secondary school athletes and drawing from and potentially extending Jowett's (2007) coach-athlete relationship model, ascertain qualitatively in-depth information regarding the nature (quality) of the coach-team relationship. Specifically, what are the affective/ emotions (Closeness), cognitive (Co-orientation), and behavioural (Complementarity) aspects/ characteristics/ features of this relationship when it is positive and when is it not.
3. To qualitatively explore the perceived determinants and consequences of a positive/high quality as well as a negative/low quality coach-team relationship in the case of secondary school athletes and their coaches.
4. With the aim to further examine potential differentiation between concepts, to determine whether athletes/coaches can distinguish and describe simultaneously experienced differential coach-team and coach-athlete (on that team) relationships that vary in their quality (positive versus negative and vice versa).
5. Via interviews with secondary school student-athletes and coaches, explore the perceived impact of COVID-19 on both coach-athlete and coach-team relationships during a global pandemic.

5.4 EXPECTED OUTCOMES

1. The development of a new model and line of research centred on the coach-team relationship.
2. To provide initial findings and empirical rationale to lead to the development of an assessment tool to measure the quality of the coach-team relationship based on an adaption and extension of Jowett's 3+1 model of coach-athlete relationships (2007).
3. Initial information for applied sport psychologists to further their understanding of the nature and determinants of the coach-team relationship and how to enhance the quality of this relationship.

6. HOW DOES YOUR PROPOSED PROJECT FIT WITHIN THE APPROVED PROGRAMME OF WORK?

Please confirm whether your study fits into the scope for the original Programme of work, in each section. If there are differences between your study and the original Programme, please ensure that column 3 is completed as per the guidance in each section of the table (e.g. if there are differences in the participants to be used, please explain what the differences are in column 3, providing full details of the characteristics of the new participant group and any inclusion/exclusion criteria to be used).

	1. ORIGINAL PROGRAMME OF WORK - SUMMARY <i>Please note that this column should not be changed/ amended.</i>	2. DOES YOUR APPLICATION DIFFER IN ANY WAY FROM THE ORIGINAL APPROVED PROGRAMME? <i>Please delete YES/NO as applicable</i>	3. IF APPLICATION DIFFERS FROM ORIGINAL PROGRAMME, PLEASE EXPLAIN THE DIFFERENCES
METHODOLOGY clear information about the methodology to be used, particularly explaining any unusual or novel methodologies	Overview All of the methods described herein have previously been applied (with approval of the ethics committee) in our past work. The studies that will be undertaken as part of this PoW will involve some of the methodological components described below. However, in the case of each study the approaches selected will be determined by the specific aims of the study and with an eye to ensuring that the demand placed on participants is not excessive and	YES	Questionnaire Based Data Collection: In addition to the previously approved questionnaire (ERN 09-152) five more scales will be added. (a) the 23 Item CART-Q - Coach-Athlete Relationship Questionnaire (Jowett and Ntoumanis 2004). (b) The 18 item YSEQ - Youth Sport Environment Questionnaire

	corresponds with what has been an acceptable participant load in past studies. Questionnaire-Based Data Collection (previously approved in applications e.g., ERN 09-152) Participants who are recruited to take part in the project will be asked to complete a questionnaire consisting of some scales selected from a number of subscales used in previous research. The scales included are comprised of items previously validated in the targeted settings and age groups. Items will tap theoretically derived features of the motivational environment (e.g., need-supportive or need-thwarting features), psychological need satisfaction/thwarting (i.e., autonomy, competence, relatedness), goal orientations (task- and ego-orientation), motivation regulations, and associated outcomes, for example engagement, disaffection and burnout (see appendices A and B). All potential items that might be used at the		(Eys et al., 2009). (c) Scale for Effective Communication in Sports Teams (SECTS-2): Sullivan, P. J., & Short, S. (2011). (d) Group Conflict Questionnaire - GCQ in Sport: Paradis, K., Carron, A., & Martin, L. (2014). The questionnaire will also be delivered online using the SMART program. This will allow for more participants to take part in the study, particularly given the current pandemic. Interviews: Interviews (appendices F&G, respectively) with the coaches and student-athletes will be conducted to gain a more in-depth insight into the nature, features and potential consequences of coach/team relationship (a particular aspect
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	current time are presented in the appendix but only a selection of these items will be used in any one study, with the view of producing questionnaires that will take approximately 30 - 40 minutes to complete. In the past, we have typically found that it is possible to effectively engage participants aged 10 and over in questionnaire based studies comprising approximately 9 A4 pages so this will be the targeted maximum. In future studies, other questionnaire items could be used with this protocol, but additional approval would be sought if the content of these items significantly deviated from what is approved within this PoW. Diary Protocols (previously approved in application ERN_11-0916) If state measures are of interest to a particular study in this PoW, a diary protocol will be implemented. Diary studies consist of a small number of questions selected from longer, validated scales and are designed to be completed on multiple		of the motivational environment). We will conduct interviews as described in the study information forms (appx C&D). All questions in the interview have been reviewed by members of this supervisory team (including Prof Sofia Jowett, Loughborough University) before being submitted to this application. Interviews will last approximately 50 minutes and be audio- and video-recorded. All recordings will be uploaded to an electronic database where they will be encrypted and stored on the UoB BEAR database. The data will be preserved and accessible for ten years.
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	occasions (e.g., daily). Each diary entry will most likely include questions related to the perceived motivational environment, the satisfaction/thwarting of the feelings of autonomy, competence and relatedness, goal involvement and selected outcome variables (see appendices A and B for longer scales from which diary items will be selected). The questions will be amended to reflect participation in the specific session being assessed (i.e., tailored for sport, dance, etc). The diaries will be designed based on our previous experiences of what is an acceptable length remain brief and completion will take no longer than 5 minutes (i.e., approximately one page of items). Diaries will typically be administered before and/or after sport/dance/physical activity sessions. Observation (previously approved in application ERN_11-0393) Some studies employing this PoW will also include an observational component. During		
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	each activity session the coach or teacher will be recorded using a video camera and voice recorder. On the day of filming a researcher will visit the training pitch or classroom or other setting and film the coach or teacher during the session. One or two camcorders will be used to record the coach or teacher and these will be positioned in such a way that they do not interfere with the coach or teacher or any other individual during the session. In addition, we will attach a small digital voice recorder and microphone to the coach/teacher to capture their verbal information. These are small and unobtrusive devices which should not hinder the coach in any way. The footage collected will be transferred from camera to computer and the coach/teachers' behaviour will be rated by the researchers, in order to code the targeted dimensions of the climate. The coding criteria have been derived from two major theories of motivation, namely the achievement goal and		
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	self-determination theories. In some cases, if they wish, feedback will be given to the coaches/teachers based on the rated clips. Feedback will be given with the aim of helping the individuals optimise the climate in the sport setting and language used will be non-technical and non-critical. Interviews In some cases interviews with the coach/teacher may be conducted to gain a more in-depth insight into their experiences coaching/teaching. Questions would relate to their perceptions the motivational environment, the satisfaction/thwarting of basic needs and motivations. Interviews will last approximately 30 minutes and be audio- and video-recorded. All recordings will be uploaded to an electronic database where they will be stored securely. The data will be preserved and accessible for ten years.		
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PARTICIPANTS number of participants and important characteristics (such as age, gender, location, affiliation, level of fitness, intellectual ability etc.). Details of any inclusion/exclusion criteria to be used	For each sports club or school, there may be two participant groups recruited to take part in studies in this PoW. One targeted participant group is the coaches/teachers and the other is the athletes/students/dancers. Studies in this PoW would use one or both of these groups. Coaches/Teachers The coaches/teachers recruited to take part in the project will be 18+ and be recruited from local sports or dance clubs, academies or schools. Athletes/Students For the athlete/student participants, the PoW presented in the attached is deemed suitable for individuals aged 10+. Participants will be recruited from local sport or dance clubs, academies or schools. Age group specific versions of the questionnaires that have been validated for those age groups will be employed. For individuals under the age of sixteen at the onset of the study parental consent will be required, in addition to the consent of the individual. Individuals over the age of 16 will provide their own	YES	Qualitative studies: All participants will be 16+ years old. The student-athletes will be participating in varsity sport programs within a private high school in GA, USA. Student-athletes will have previously participated in their team for at least one year prior to the interview and play for the Varsity team. The primary researcher (PhD student) legally works in the private school as a full-time salaried employee as a high school counsellor. Student-Athletes: Two student athletes from both biological sexes will be requested to participate in the qualitative study [(i.e., a total of 2 boys and 2 girls from six different sports (soccer and basketball in each case, and baseball/ softball
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	consent to participate in the study. For both participant groups, recruited individuals can be either male or female. Fitness Coaches/Teachers The participants included in this work will be regularly leading sports clubs, dance classes, exercise classes or instructing students during physical education lessons. Athletes/Students Participants included in the work will be regularly active, either in sports clubs, dance schools, exercise classes, or engaging regularly in physical education lessons in school. Intellectual capacity All participants recruited via this PoW will have full capacity to fully understand their involvement in the study and to provide informed consent. Inclusion/Exclusion Criteria Coaches/Teachers Participants will be 18+ and not have learning or mental disabilities that could prohibit their full understanding of	in each case) Total N = 24]. Coaches: Two coaches from each team will be requested to participate in the study (N = 12). All other guidelines will be followed as previously approved. Quantitative research: Participants will be 16+ and student-athletes. Student-athletes who choose to participate in data collection will be required to be seasonally active in their sport when interviewed, pick one team and name their head coach as a reference when answering the questions. All other protocols previously approved in application ERN_12-1558P will be applied.
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	the study and ability to consent to participation. The participants will be regularly leading sessions at their sports club, in their dance class, exercise class or in physical education lessons in school. In some cases these participants may be specifically recruited because they attended a motivation-based education programme delivered by our group. Athletes/Students Participants must be aged 10+ years and not have learning or mental disability that could prohibit their full understanding of the study and ability to consent to participation. The participants should be regularly engaging in the sports club, dance school, exercise class or in physical education lessons at school.		
RECRUITMENT how the participants will be identified, approached and recruited. Include any relationship between the investigator(s) and participant(s) (e.g. instructor-student)	Coaches/Teachers In the first instance coaches/teachers will be identified. Various sources will be used to identify coaches or teachers who could be recruited to studies in this PoW. A database search using internet search-engines will provide potential coach/teacher groups who will then be	Yes	Participants for the study will be recruited via convenience sampling. A database (veracross) search will provide potential coach/ sport groups who will then be contacted via email and given

	contacted via email or phone and given information about the study using the information letter in the appendix E. Existing relationships between the department and teams or schools may also provide potential coach/teacher participants to be recruited to the project. In some projects, National Governing Bodies and other organisations may recommend groups or clubs that could participate in our studies. In this case clubs/schools will be recruited via these means. In agreeing to take part, coaches/teachers will be consenting to complete a series of questionnaires and be filmed on a number of occasions. This information is clearly described in the participant information letters. Some participants may have (or be planning to) attend an educational workshop about the motivational climate and promoting positive experiences in physical activity delivered by members of our team. Thus, these individuals may be recruited via		information about the study using the participant information sheet (appx A, B&C). Existing relationships between the department and teams or schools may also provide potential coach/teacher participants to be recruited to the project. The researcher will have no prior engagement/relationships with the participants and will engage with potential participants as previously approved in the application ERN_12-1558P. It will be made clear that this participation is in regard to the 1ry researcher's (PhD's student) role as a doctoral student at the University of Birmingham and not his role as a counsellor in the School.
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	communications concerning the workshop. Athletes/Students Only after the coaches/teachers have consented to them and/or their team or group taking part in the project will the athletes/students be given information regarding the study. The information letters in appendices I (16+) and K (under 16) will be used to inform athlete/student participants about the research and invite them to participate. Should parent consent be necessary the information letter in appendix G will be given to parents at least two weeks prior to the onset of the study (see the next section for details on when parental consent is necessary). Should athletes/students agree to take part in the project they will be consenting to complete a series of questionnaires and/or be aware that their coach/teacher will be filmed on a number of occasions.		
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CONSENT process that the investigator(s) will be using to obtain valid consent	Overview Coaches/teachers will be contacted via the means described in the preceding section. Should the coach/teacher be interested in taking part in the project, one of three potential courses of action will be followed. If the athletes/students under the supervision of the coach are Under 16 years of age the procedure discussed for 'Under 16' participants will be followed. If the athletes/students are over 16 years of age the procedure for '16+' participants will be followed. If the only feature of interest in the study is the coaches behaviours and his/her responses, the 'Studies involving filming coaches/teachers only, and no other participation by athletes/dancers' procedure will be followed. Athletes/Students Under 16 The procedure to be followed will be aligned with what was approved for research in this line of work in application ERN-09-152, in which the same (or very similar)	Yes	Overview: As this research will take place in the country in which the head researcher resides and works in, national and state regulations will be adhered to for the collection of data within the country of the United States and State of Georgia. Should participants 18+ years participate in the study they will be required by federal and state laws to sign a consent form (see appendix F). Should student-athletes 17 years and under participate in the study, they will be required by federal and state regulations to sign an assent form (see appendix E). However, student-athletes 17 years and under may be waived parental consent for participation in the study as mentioned in the guidelines below. This study will
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	measures and types of variables were studied among children aged 10-14. In the first instance the coach or teacher of the identified team or school will be contacted and provided with an information letter detailing the purposes of the study (see appendix E). If the coach/teacher is interested in taking part, information will be distributed to the parents or legal guardians of the potential participants (see appendix G). Parents (or legal guardians) will be given the opportunity to opt their child out of the study and will be given at least 2 weeks prior to the beginning of data collection to sign and return the form (appendix H). On the day of data collection athlete/student participants will be asked to read and provide signed consent to take part in the study (see appendices K and L). The method adopted to get the information to parents will be consistent with the normal method used by the organisation to convey very important information to parents. This may include all or some of: verbal	follow all guidelines as outlined by federal and state regulations. Federal & State Regulations for Children: Office for Human Research Protections (OHRP) makes available the full text of the federal regulations outlined by the Health and Human Services (HHS) regulations for the protection of human subjects in research (45 CFR 46), the Common Rule (45 CFR 46) Subpart A), and FDA human subject protection regulations. The state of GA defines minors as those persons 17 years of age and under. The state of GA requires that for most research, minors must sign an assent form and at least one parent/ legal guardian sign a consent form.
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	explanation face to face, email, text message, notice on website, letter provided in person or via child (the latter will be employed in every case, and supplemented with at least one other method). While there can be no 100% guarantee that all parents will receive the information, we will make every effort to ensure parents are informed. From an ethical standpoint the risks involved in this study are extremely low and do not exceed day-to-day activities that children would participate in at school or in their sports club. Moreover, their required participation is very simple and we consider that participants of all ages would have capacity to consent to involvement in the proposed activities themselves. The research assistants that will recruit children will be rigorously trained to ensure that all participants are fully informed and fully understand the research. The voluntary nature of the study and freely available opportunity to withdraw (within the		However, under the HHS regulations waiver of parent/guardian permission may be granted as described in 46.116 and 46.408(b); (1) The research involves no more than minimal risk to the subjects; (2) The waiver of alteration will not adversely affect the rights and welfare of the subjects; (3) The research could not practicably be carried out without the waiver or alteration; (4) whenever appropriate, the subjects will be provided with additional pertinent information after participation; (5) Research conducted in the establishment or commonly accepted educational settings, that specifically involves normal educational practices that are not likely to adversely impact student's
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	specified time frame) will be emphasised. Thus, we consider that opt-out consent is justifiable in this PoW. 16+ Similar to above, the coach/teacher will be provided with information related to the study (appendix E). If they are interested in taking part a researcher will attend to collect baseline questionnaires. Before questionnaires are distributed, the purpose of and specific activities in the project will be fully explained and the coach and players will be asked to read the information letter in appendix I and sign the consent form in appendix J. The voluntary nature of the study and freely available opportunity to withdraw (within the specified time frame of one month post data collection) will be emphasised. Coach Only If the coach is the only participant of interest in the study, the initiation of his/her involvement will be completed as described above. Participants in the sessions to be studied or filmed will be given an information letter		opportunity to learn required educational content or the assessment of educators who provide instruction; (6) Research that only includes interactions involving educational tests, survey procedure, interview procedure, or observation of public behaviour (including visual and auditory recording) if at least one of the following procedures are met. (a) Information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained; (b) Any disclosure of the human subjects responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the
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	(for them and for parents if U16) explaining the purpose and nature of the filming. These letters will clarify that the filming is intended to capture information about the coach only, not the players. The letters will indicate that the participants/their parents have the opportunity to state any objections to filming. If any objections are received from any relevant party, sessions will not be filmed. With regard to filming, these methods replicate those previously approved in ERN_11-0393.	subjects financial standing, employability, educational advancement or reputation. This study will adhere to these outlined federal and state regulations for children's participation in research and waive parental consent for participants 17 years and under by following all guidelines mentioned above. Coaches & Student-athlete (interviews): Should coaches/ student-athletes choose to participate in this study, they will be provided with either a coach or athlete information sheet (appendices A). The researcher will then schedule an interview date and time. Before the interview schedule commences the purpose of and specific activities in the project will
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		be fully explained and the coach and student-athlete will be asked to sign the Assent/ or consent form in appendices B&C). The voluntary nature of the study and freely available opportunity to withdraw (within the specified time frame of one-month post data collection) will be emphasised. Student-Athlete (questionnaire - appx B) Similar to above, should the student-athlete wish to participate in the study they will be provided with information related to the study (appx A). If they are interested in taking part, the researcher will schedule two separate data collection dates. 1. For student-athletes 17 and under who will be required to sign an assent. 2. For student-athletes 18+ who will be
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			required to sign a consent form. Before the questionnaires will be distributed, the purpose of and specific activities in the project will be fully explained and the student-athletes will be asked to read the information letter and sign either the consent/ assent (appx B). The voluntary nature of the study and freely available opportunity to withdraw (within the specified time frame of one-month post data collection) will be emphasised. Department Head (appx A): Before any participants can be asked to take part in the study, signed consent from the head of the school/ or the director will be required (appx A).
PARTICIPANT FEEDBACK what feedback/ information will be	As part of the research, all clubs/schools will receive written feedback in non-	Yes	We aim to provide 3 educational workshops to

provided to the participants after participation in the research	technical language, which will provide the background to the project, provide a summary of the main findings and offer appropriate practical recommendations. Coaches or teachers who had their sessions recorded will, at the end of the study, be offered DVDs of their filmed training sessions or classes, and may have the opportunity for more detailed advice and feedback from the research team.		deliver and explain the results of the study for the athletes (a), coaches (b) and administration (c). Only summary data will be presented. No personally identifiable information/findings will be provided.
PARTICIPANT WITHDRAWAL how the participants will be informed of their right to withdraw from the project, any consequences for the participant of withdrawing from the study and what will be done with the participant's data if they withdraw	Coaches/Teachers Coaches or teachers will be provided, at the beginning of the study, with an information letter which will clearly state that they can refuse to participate in the study before, during or up to one month after their last data is collected. After this time, withdrawal may not be possible if analysis has started or if data have already been presented or reported. To ensure that this is clear, the researcher who is distributing the information letters will communicate this verbally and direct the coaches/teachers to this information on the letters provided to them. In the	No	

	circumstance that a coach/teacher wishes the data be withdrawn from the study, we will request they write to us using the contact details provided within the information letter. Athletes/Students The athlete/students, as well as their parents/guardians where necessary, will be informed of their right to withdraw at any point up to one month after the data was collected. Similar to the coaches or teachers, the athletes will have the opportunity to request that their data be withdrawn from the study at any point up to one month following the follow-up questionnaire session. After this time, it will not be possible to withdraw. This will be communicated via the information letters distributed at the beginning of the study. In the circumstance that a parent/guardian or player wishes the data be withdrawn from the study, we will request they write to us using the contact details provided within the information letter. The data of any person withdrawing from the		
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	study will be destroyed. There will be no consequences for wanting to withdraw from the study. This is clearly explained in the information letters.		
COMPENSATION will participants receive compensation for participation (financial or other)	Typically, participants will not receive compensation. On occasion, they may be given a small gift (e.g., a t shirt, a water bottle) to thank them for their time.	No	
CONFIDENTIALITY procedures to be used to ensure anonymity of participants and/or confidentiality of data both during the conduct of the research and in the release of its findings	All information letters and consent forms will clearly state that the collected data will be kept confidential. Individuals involved in the project will be assigned a dummy ID code to match their diary reports over the course of the study and no names will be attached to their completed forms. Individual data will not be released when the findings are published.	No	
STORAGE, ACCESS AND DISPOSAL OF DATA what research data will be stored, where, for what period of time, the measures that will be put in place to ensure security of the data, who will have access to	During the project, any collected filmed footage will be uploaded onto a computer that will be stored securely at all times and be protected by a password. Back-ups of the video files will be stored on an external hard drive that will be kept in a secure office. Where possible data will be stored on University computers,	YES	During the project any collected data whether interview or questionnaire, will be stored in a confidential and key locked safe in the researcher's office. Only the researcher has access to the office and the

the data, and the method and timing of disposal of the data	however the sheer volume of data generated (particularly hundreds of hours of filmed footage) that exceeds the storage capacities of many computers, means that this is not a practical or realistic solution. Thus, when data is stored on external drives, we will first encrypt it appropriately. Any hard data will be stored in locked cabinets within the School. No individuals, other than the researchers involved with the project will have access to the data. Hard copies of recordings can be destroyed after 10 years, aligned with University policy. The electronic databases will be kept indefinitely, but will not be shared with any third party and will remain confidential, using the assigned dummy IDs.	door has a one-way opening mechanism that requires a key to gain entry. As soon as the researcher (SJB) is able to travel back to the UK, he will transport all collected data on a securely encrypted back up hard-drive files for the interviews and padlocked case for the questionnaires. When on the University of Birmingham campus, any hard data will be stored in locked cabinets within the school. No individuals, other than the researchers involved with the project, will have access to the data. Hard copies of recordings can be destroyed after 10 years, aligned with University policy. The electronic databases (BEAR) will be kept indefinitely, but will not be shared with any third party and will remain
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			confidential, using the assigned dummy IDs.
RISKS any potential risks to INDIVIDUALS (including <u>research staff, research participants, other individuals not involved in the research</u>) &/OR THE ENVIRONMENT/ SOCIETY and the measures that will be taken to <u>minimise</u> any risks and the procedures to be adopted in the event of mishap	There are no known risks associated with this research.	YES	This research will be completed in a private high school setting in the USA. The researcher is a high school counsellor at the school where data will be collected and is legally allowed to meet with students 1-1 in their private office. When working with vulnerable populations, the private school requests that another member of faculty will know where the researcher is going, when they are expected to return, when they will be conducting interviews, when they will be collecting questionnaire data and will have contact details of the researcher. In line with Health Insurance Portability and Accountability Act (HIPAA) there is a glass

			window in the door of the office that will allow the team member to observe the safety of the researcher and participants when they are engaged in 1-1 interviews.
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PARTICIPANT DOCUMENTATION

Please provide copies of all documentation to be included in the study

	INCLUDED IN ORIGINAL PROGRAMME OF WORK - <i>please note this column should not be changed/amended</i>	WILL ORIGINAL DOCUMENTATION BE USED WITH <u>NO CHANGES</u>? (e.g. use of standardised, validated questionnaire) Please delete YES/NO as applicable If NO - please complete next column	IF ANY CHANGES ARE TO BE MADE TO ORIGINAL DOCUMENTS (e.g. an amended version of the original Participant Information Sheet which is specific to the project), OR ADDITIONAL MATERIALS ARE TO BE USED: Please delete YES/NO as applicable. Please provide copies	
			Amended originals	Additional materials
RECRUITMENT MATERIALS		No		

<i>PARTICIPANT INFORMATION SHEET</i>		Yes	Yes	Yes
<i>CONSENT/ASSENT FORM</i>		Yes	Yes	Yes
<i>QUESTIONNAIRE/INTE VIEW QUESTIONS</i>		Yes	Yes	Yes
<i>DEBRIEF</i>		No	No	Yes
<i>OTHER : Please specify: Head of School Consent</i>		No	Yes	Yes

NOTE: With the exception of standardised materials (e.g. standardised, validated questionnaires), study specific, tailored versions of all participant documentation should be provided.

7. CHECKLIST

Please mark if the study involves any of the following:

- Vulnerable groups, such as children and young people aged under 18 years, those with learning disability, or cognitive impairments ☒
- Research that induces or results in or causes anxiety, stress, pain or physical discomfort, or poses a risk of harm to participants (which is more than is expected from everyday life) ☐
- Risk to the personal safety of the researcher ☐
- Deception or research that is conducted without full and informed consent of the participants at time study is carried out ☐
- Administration of a chemical agent or vaccines or other substances (including vitamins or food substances) to human participants ☐
- Production and/or use of genetically modified plants or microbes ☐
- Results that may have an adverse impact on the environment or food safety ☐
- Results that may be used to develop chemical or biological weapons ☐

Please check that the following documents are attached to your application.

	ATTACHED	NOT APPLICABLE
N/A. Recruitment Advertisement	☐	☒
A. Head/ Director Study Information & Consent	☒	☐
B. Athlete Questionnaire & Consent/Assent	☒	☐
C. Athlete Interview Schedule & Consent/Assent	☒	☐
D. Coach Interview Schedule & Consent/Assent	☒	☐
E. Athlete Team Questionnaire	☒	☐
F. Coach Interview Schedule	☒	☐
G. Athlete Interview Schedule	☒	☐

8. DECLARATION BY APPLICANT

I submit this application on the basis that the information it contains is confidential and will be used by the University of Birmingham for the purposes of ethical review and monitoring of the research project described herein, and to satisfy reporting requirements to regulatory bodies. The information will not be used for any other purpose without my prior consent.

I declare that:

- The information in this form, together with any accompanying information, is complete and correct to the best of my knowledge and belief, and I take full responsibility for it.
- I undertake to abide by the University Code of Practice for Research (http://www.as.bham.ac.uk/legislation/docs/COP_Research.pdf) alongside any other relevant professional bodies' codes of conduct and/or ethical guidelines.
- I will report any changes affecting the ethical aspects of the project to the University of Birmingham Research Ethics Officer.
- I will report any adverse or unforeseen events which occur to the relevant Ethics Committee via the University of Birmingham Research Ethics Officer.

Name of Principal Investigator/Project Supervisor

Prof Joan Duda

Date:

07/10/2020

Name of Programme Lead:

Samuel John Booth

Date:

07/10/2020

Please now save your completed form, print a copy for your records, and then email a copy to the Research Ethics Officer, at aer-ethics@contacts.bham.ac.uk. As noted above, please do not submit a paper copy.

APPX I - Sample of exemplar quotes to support antecedents for positive CTRs

Theme	Quote	Source
Shared, Trusted, and Mutually Engaged	"When players feel they are part of creating what we are doing, they commit more. It becomes theirs too, not just mine."	C6
Shared, Trusted, and Mutually Engaged	"When we designed practices together, it stopped feeling like orders and started feeling like ours."	SA2
Shared, Trusted, and Mutually Engaged	"It's about building unity, connection, and passion. When the players feel understood and challenged, they buy in."	C8
Role Clarity	"Understanding your role in the team is the biggest thing. Without that, you're just lost."	C10
Role Clarity	"When expectations are unclear or unfair, everything falls apart, and people start questioning everything."	C7
Role Clarity	"Alignment happens when my expectations are clear and theirs are clear too, that's when things work best."	C8
Effective Communication	"The players need to feel understood, and also challenged. That only comes from honest, open communication."	C8
Effective Communication	"Communication builds the esprit de corps between coach and team."	C7
Effective Communication	"Positive reinforcement, open feedback, and building transitions from school to practice — that's how we connect."	C8
Perceived Competence and Trust in Ability	"We trust the coach more when we feel like the plans make sense and actually help us improve."	C8
Perceived Competence and Trust in Ability	"When they believe in me and I believe in them, that's when we become a team, not just a group of people playing a game."	C7
Perceived Competence and Trust in Ability	"When coaches empower players to lead drills or make decisions, trust goes both ways."	C1
Coach-Athlete Alignment and Emotional Safety	"If I make eye contact with five players, every player feels seen."	C7
Coach-Athlete Alignment and Emotional Safety	"In a positive environment, players feel safe to take risks and push boundaries without fear of failure."	C10

APPX J - Sample of exemplar quotes for antecedents of negative CTRs

Theme	Quote	Source
Inauthentic Coaching and Broken Promises	"They say if you work hard you'll play - but that's not true. Everyone knows it."	C10
Inauthentic Coaching and Broken Promises	"You could see right through it. It wasn't about us. It was about their ego."	C10
Inauthentic Coaching and Broken Promises	"When the coach doesn't deliver what they promised at the start of the season, you stop believing in anything they say."	C2
Relational Disengagement and Competing Commitments	"You just try to stay above water and not upset the team."	C3
Relational Disengagement and Competing Commitments	"They didn't want to listen anymore because they didn't trust her. They just stopped trying."	C2
Relational Disengagement and Competing Commitments	"It gets to a point where you're only playing for your friends, not the team."	C10
Power Imbalances and Ego-Driven Dynamics	"The coach thinks they're bigger than the team. They don't get the bigger picture. Their ego gets in the way."	C10
Power Imbalances and Ego-Driven Dynamics	"When the team fails, it's because of the players. When the team wins, it's because of the coach."	C10
Power Imbalances and Ego-Driven Dynamics	"I had to give up power and apologise - that changed everything."	C6
Poor Communication and Misalignment	"There was a complete breakdown. They didn't believe in what we were doing, so they stopped listening."	C2
Poor Communication and Misalignment	"Not communicating and not communicating clearly around expectations causes the environment to fall apart."	C8
Poor Communication and Misalignment	"Especially when the issue could implicate or get other teammates in trouble, we just stayed quiet."	C3
Poor Communication and Misalignment	"Blanket statements made us feel hopeless and killed motivation."	SA2
Exclusion, Favouritism, and Shattered Confidence	"I walked away with lower self-esteem. It felt like we were just left out."	C8
Exclusion, Favouritism, and Shattered Confidence	"There were no rules being followed... it just wasn't fair, and we stopped caring."	C2

Theme	Quote	Source
Exclusion, Favouritism, and Shattered Confidence	"The coach puts all their time into a few players. The rest of us feel like we don't matter."	SA1