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A mixed-methods exploration of how shared athlete leadership influences teamwork

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ABSTRACT

Empowered athlete leadership may bolster teamwork, while poor leadership might compromise it—yet, *how* shared athlete leadership influences teamwork remains unclear. In this embedded mixed-methods study, we explored perceptions of how shared athlete leadership and athlete leaders might influence teamwork. In the first qualitative phase, we conducted seven focus groups with three sport teams ($n = 24$, 50 % female, $M_{Age} = 19.9$ years). We then used social network analyses to assess the perceived quality of all team members on their task, motivational, social, and external leadership, thereby identifying the four highest-rated athlete leaders whom we invited for interviews in the second qualitative phase. In that second qualitative phase, we conducted one-to-one interviews with athlete leaders. Using deductive framework analysis to analyze all qualitative data, we generated four themes. First, social leadership was believed to lay the groundwork for effective teamwork. Second, task and motivational leadership were perceived to regulate team performance by driving teamwork execution, evaluation, and adjustment. Third, task and external leaders were thought to support or hinder coaches' efforts to facilitate teamwork. Fourth, formal and informal leaders were believed to spread teamwork by setting positive examples for teammates to follow. Overall, our research suggests that the perceived influence of athlete leadership on teamwork is nuanced, with various leadership roles and behaviors impacting teamwork in different ways. Teams could foster effective teamwork by encouraging social and motivational leadership to be shown by all members and appointing high-quality task and external leaders to support coaches' efforts to facilitate teamwork.

1. Introduction

> "In the most successful periods of the GB women's hockey team, every team member was considered a leader, and we were, at the same time, all being led – from above the team and from within the team." (Richardson-Walsh & Richardson-Walsh, 2021, p. 124)

In their book, Kate and Helen Richardson-Walsh of the Olympic-winning Great Britain (GB) hockey team articulated an experience also observed by other top teams: leadership, distributed and shared among team members (i.e., shared athlete leadership) can promote team effectiveness. Indeed, shared athlete leadership has been found to contribute positively to indicators of team effectiveness (e.g., team resilience), in part by facilitating certain teamwork behaviors (Fransen et al., 2020; López-Gajardo et al., 2023). Conceptually, McEwan and Beauchamp (2014) also proposed that shared athlete leadership may contribute to team effectiveness via the development of teamwork behaviors. Recent qualitative inquiries support this notion, suggesting that sub-par athlete leadership may lead to teamwork breakdowns (McEwan & Crawford, 2022), while empowered athlete leadership could encourage teamwork to flourish (Crawford et al., 2024). Taken together, these quantitative and qualitative findings indicate a possible link between shared athlete leadership and teamwork. However, *how* leadership influences teamwork in practice remains unclear. Addressing this gap is the purpose of this study—a necessary step toward advancing understanding of athlete leadership's role in facilitating effective teamwork and optimizing this relationship to enhance team effectiveness.

Teamwork has been defined as "a dynamic process involving a collaborative effort by team members to effectively carry out the independent and interdependent behaviors that are required to maximize a team's likelihood of achieving its purposes" (McEwan & Beauchamp, 2014, p. 233). It is a multidimensional construct that comprises 14

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behavioral dimensions, which are encompassed within five higher-order aspects. One aspect concerns the management of team maintenance, which involves navigating interpersonal relationships, including the provision of psychological support and dealing with intrateam conflicts. The remaining aspects regulate team performance via four recurring phases (i.e., preparation, execution, evaluation, and adjustments) that teams progress through to achieve goals. First, *preparation* sets the team up for success (e.g., before a match) by defining their purpose (i.e., mission analysis), setting goals to serve that mission (i.e., goal specification), and designing strategies to achieve those goals (i.e., planning). Second, *execution*, includes collaborative behaviors that enact the team's plans during play, such as synchronizing players' actions (i.e., coordination), working collaboratively (i.e., cooperation), and exchanging information (i.e., communication). Third, *evaluation* consists of feedback activities to monitor performance (i.e., performance monitoring) and relevant conditions (i.e., systems monitoring). Finally, teams make *adjustments* to recalibrate, such as collaborative brainstorming (i.e., problem-solving), helping teammates fulfil their roles (i.e., backing-up), providing guidance (i.e., intrateam coaching), and introducing fresh ideas (i.e., innovation).

Moving from teamwork to shared athlete leadership, the latter is characterized by three key features: it (a) arises from the collective interactions of all team members (i.e., an emergent phenomenon), and it (b) involves the distribution of influence and leadership activities (c) amongst peers (Loughead et al., 2021). Since team captains are no longer considered the sole source of athlete leadership, Fransen et al. (2014) identified four distinct roles of informal leadership, often fulfilled by different players on a team (see Table 1). Members who fulfil these roles are identified by aggregating the perceptions of leadership quality *of* every team member *by* every team member (Fransen, Haslam, et al., 2015). As the "quality of leadership is always in the eye of the beholder" (Haslam et al., 2024, p. 5), it has become commonplace to examine leadership via team members' perceptions (Cotterill et al., 2022).

Higher perceived leadership quality in any role has been associated with increased communication (Takamatsu & Yamakita, 2022), and overall leadership quality, calculated by combining teammates' perceptions on all four roles into a single factor, has been found to positively predict teamwork execution (López-Gajardo et al., 2023). While these findings support the leadership-teamwork relationship, they focus exclusively on execution behaviors (e.g., communication), which comprise only three of the 14 teamwork behaviors identified by McEwan and Beauchamp (2014). Not only is the extant literature relatively nascent—with just two studies to date (López-Gajardo et al., 2023; Takamatsu & Yamakita, 2022)—but its quantitative nature does little to shed light on *how* shared athlete leadership might influence teamwork, including the remaining 11, non-execution behaviors (e.g., planning, innovation). Also, the four distinct roles of task, motivational, social, and external leadership have been differentially associated with specific behaviors and skills (Fransen et al., 2020), and each leadership role might influence teamwork uniquely. No prior study has explored this idea, and thus the present investigation is novel and needed.

Table 1
The four leadership roles as described by Fransen et al. (2014).

Leadership role	Description and behaviors
Task	A task leader is in charge on the field; this person helps the team to focus on the team goals and helps in tactical decision-making. Furthermore, the task leader gives teammates tactical advice during the game and gives them guidance if necessary.
Motivational	The motivational leader is the biggest motivator on the field; this person encourages teammates to go to any extreme; this leader also puts fresh heart into athletes who are discouraged. In short, this leader steers all the emotions on the field in the right direction in order to maximize team performance.
Social	The social leader has a leading role off the field; this person promotes good relations within the team and cares about having a good team atmosphere, for example, in the dressing room, on the bus, or during social activity. Furthermore, this leader helps with conflicts between teammates off the field. This leader is a good listener and is trusted by teammates.
External	The external leader is the link between the team and the people outside the team; this leader is the representative of the team when dealing with the club management. If communication is needed with media or sponsors, this person will take the lead. This leader will also communicate the views of the club management to the team, for example, regarding sponsoring, club events, and contracts.

Note. Reproduced from "The Myth of the Team Captain as Principal Leader: Extending the Athlete Leadership Classification Within Sport Teams," by K. Fransen, N. Vanbeselaere, B. De Cuyper, G. Vande Broek, & F. Boen, 2014, *Journal of Sports Sciences*, *32*(14), p. 1392. Copyright 2014 by the Taylor & Francis Group.

A deeper understanding of how shared athlete leadership might influence teamwork in sport carries important practical implications. Such insight could inform the design of future athlete leadership development initiatives or teamwork training programs aimed at optimizing the leadership-teamwork relationship to enhance team effectiveness. Notably, a recent realist review of 105 teamwork training interventions across diverse contexts concluded that training focused on team leaders may be particularly effective, as ~85% of leader-delivered interventions showed improvements in team performance (Crawford, 2024). However, none of these leader-driven interventions were conducted in sport, and the mechanisms through which team leaders influenced teamwork—especially in the absence of researcher-led training—remained unclear. In the sport context, Butalia et al. (in press) reviewed 36 athlete leadership development interventions and found that more than 60% focused on enhancing intrapersonal qualities and skills that underpin effective leadership. Although team-building was identified as a critical skill, the specific behaviors through which athlete leaders may influence teamwork were not discussed and have been under-researched.

Recently, scholars have encouraged the decoupling of "leadership" and "leader", as they are often used interchangeably in the literature, despite being distinct constructs (Loughead et al., 2021). Indeed, leadership is an emergent process that manifests from team members' relationships and interactions, while leaders are influential persons in a team (Haslam et al., 2024). In other words, multiple team members may display task leadership when playing in key positions but their status as task *leaders* depends on other factors such as their team's context and the perceived quality of their leadership (Fransen, Haslam, et al., 2016). As explained by Loughead et al. (2021), a "leader and leadership do not inherently produce the same behaviors …. By disentangling 'leader' and 'leadership' terminology, we can better understand how leaders operate as individuals and how leadership functions as a process without confusing the person and the process" (pp. 169-70). Though the leadership literature has prioritized and privileged the perspectives of leaders, both the "person and the process" must be considered in equal respect to adequately explore how shared athlete leadership influences teamwork (Haslam et al., 2024). Therefore, in this study, we considered both team members' and leaders' perspectives (i.e., in focus groups and individual interviews, respectively). Specifically, we asked two research questions: how might athletes' leadership behaviors be perceived to influence teamwork? (RQ1); and how might athlete leaders perceive that they influence teamwork? (RQ2).

2. Methods

2.1. Design

We used an embedded mixed-methods design, employing social network analysis (SNA) as an "intersecting secondary method within a primary qualitative research design" (Creswell & Creswell, 2018, p. 227). We integrated quantitative data analyses in a dominant qualitative design to enhance the study through multiple research phases (Creswell

& Creswell, 2018). As a first step, we conducted focus groups with teams (first qualitative phase) and SNA to assess the perceived leadership quality of team members (quantitative phase). We then conducted one-on-one interviews with the perceived highest-rated task, motivational, social, and external leaders (second qualitative phase). While the qualitative analyses primarily addressed the research questions, the inclusion of a quantitative phase was essential for accurately identifying those individuals whom the team collectively perceived as their most effective leaders. In this way, our design allowed us to explore two key views: (a) team members' perspectives of how shared leadership might be perceived to influence teamwork (RQ1), and (b) highly rated leaders' perspectives of their perceived influence on teamwork (RQ2). Thus, the use of mixed-methods in this study provided both complementarity and efficiency—the quantitative phase enhanced the qualitative output, facilitating richer, more contextually grounded, and nuanced insights than could have been achieved through qualitative inquiry alone (Creswell & Creswell, 2018).

The study was underpinned by an ontological position of critical realism (i.e., a mind-independent truth exists but is impossible to know divorced from human practices) and a contextualist epistemology (i.e., knowledge as situated, personal, and socially created; Braun & Clarke, 2022). Consistent with our position, we adopted a critical orientation to make interpretations beyond data-based meanings (Braun & Clarke, 2022), to identify the underlying logic and explanations of how shared athlete leadership might be perceived to influence teamwork (Madill et al., 2000). To be clear, our aim is not to imply a causal relationship between athlete leadership and teamwork, but rather to explore athletes' perspectives on how enacting leadership in particular ways may support teamwork. With a collective 30-year experience of playing, leading, and working in team sport, from developmental to elite levels, and as practitioners and researchers across three continents (i.e., Asia, Europe, North America), the research team—who have previously published research on teamwork and leadership—played an active part in sense-making how athlete leadership and highly rated leaders are perceived to influence teamwork.

2.2. Participants

Three teams participated in this study: a female secondary school lacrosse team ($M_{Age} = 17.1 \pm 0.6$ years); a male university soccer team ($M_{Age} = 20.4 \pm 1.8$ years); and a male club field hockey team ($M_{Age} = 22.1 \pm 5.9$ years). All teams trained at least twice a week with a full-time coach and participated in at least one competitive league in the United Kingdom annually. In total, 43 participants from the three teams provided consent and completed the leadership questionnaires (15 out of 18 from the lacrosse team, nine out of 20 from the soccer team, and 19 out of 28 from the hockey team). Only 24 participants took part in the focus groups, as 19 withdrew citing scheduling difficulties. Follow-up interviews were conducted exclusively with identified leaders (two males, two females; $M_{Age} = 22.0 \pm 6.0$ years; Table 2) from the hockey and lacrosse teams. Due to insufficient responses (<50%) to the leadership questionnaires from the soccer team, we did not consider it appropriate to identify athlete leaders based on a limited aggregation of the team's perceptions. Overall, 43 participants from three teams completed the leadership questionnaires; 24 of them took part in focus groups, and four were interviewed (see Supplementary Material for figure).

Table 2
Socio-demographic characteristics of interviewees.

Characteristics	Leader			
	Task	Motivational	Social	External
Age (years)	17	17	25	29
Gender	Female	Female	Male	Male
Ethnicity	White-Other	White-British	White-British	White-British
Current team				
Competitive level	School	School	Club	Club
Tenure (years)	1	2	7	1
Formal leader	No	No	No	No
Sport	Lacrosse	Lacrosse	Field hockey	Field hockey
Experience (years)	6	6	13	22

2.3. Procedure

Institutional ethical approval (University of Bath REACH: EP 23 002) was obtained. Our planned sample size was guided by the qualitative research phases, which were central to our research purpose. Using purposive sampling, we aimed to recruit four teams varying in age (teenagers to working adults), gender, competitive level (inter-school to professional), and ball sport, with four follow-up interviews for one leader (task, social, motivational, external) per team. The quantitative phase enhanced information power by identifying those in key informal leadership roles for follow-up interviews (Malterud et al., 2016). Coaches, team managers, and teachers from our networks were emailed, followed by calls to explain the study, confirm team eligibility, and sense-check our understanding that their teams were information-rich cases (Malterud et al., 2016). Out of approximately 30 teams contacted between February and May 2023, three teams agreed to participate (~10% response rate). Failing to recruit a fourth team at elite competitive levels or in para-sport, we stopped recruitment at three teams because they provided sufficient diversity to achieve our goal of identifying patterns at the intersection of leadership and teamwork (Lakens, 2022). Our final sample aligned with guidelines in sport psychology research (Smith & Sparkes, 2016), and was manageable given that only one author was responsible for data collection via a highly involved procedure (i.e., resource constraint; Lakens, 2022). Coaches facilitated 30-min sessions where teams were informed about the study by the first author.

During these information sessions, participants provided their informed consent and completed a leadership questionnaire on JISC Online Surveys (www.onlinesurveys.ac.uk) via their personal devices. Using their personal devices, rather than physically submitting paper forms during the session, helped ensure that teammates and coaches could not identify who chose to participate in the study. The first author was available to address any participant queries, and step-by-step instructions for completing the questionnaire were provided via the online platform. Completion of the online questionnaire typically took no more than 10 min. Participants also indicated their availability for the focus groups using the same platform. Focus groups were scheduled to take place two weeks later, based on availability options suggested by their coaches. Participants received details for their focus groups and Microsoft Teams links, where appropriate, via email. We conducted focus groups to align the study design with the research purpose, as focus groups can replicate the cross-pollination of ideas and teammate interactions of sport settings (Smith & Sparkes, 2016).

To establish rapport and set the context, participants were first shown a brief slideshow featuring leadership and teamwork anecdotes from well-known sport teams. The interviewer (i.e., first author) then defined shared athlete leadership and teamwork as conceptualized in this study. Focus groups were facilitated with a semi-structured interview guide designed to explore: (a) the team's leadership structure (e.g., "what is the leadership structure in your team?"); (b) the understanding of shared leadership (e.g., "what does sharing leadership mean to you?"); (c) leadership activities and behaviors (e.g., "what do athlete leaders do in your day-to-day training environment?"); (d) the role of leadership in teamwork (e.g., "how important are athlete leaders to the teamwork of your team, and why?"); and (e) specific instances of leadership influencing teamwork (e.g., "please share a time when an athlete leader made a significant difference to the teamwork of your team during a match"; see Supplementary Material for full interview guide). Seven focus groups were conducted, either virtually ($n = 4$) or in-

person ($n = 3$), with two to five participants in each, lasting 55–92 min ($M = 75.7 \pm 14.4$ min). To ensure the interviewer was blind to the highest-rated leaders—and thereby avoid unintentionally disclosing information to participants or privileging certain voices—we analyzed the leadership questionnaire data only after the focus groups had concluded. Based on the results, we invited the four highest-rated task, motivational, social, and external leaders for interview, all agreed.

To facilitate discussion, participants were sent a preparatory task one week before their interview, asking them to imagine having sole responsibility for leading their team and to reflect on how they would do this (Smith & Sparkes, 2016). At the start of each interview, the interviewer collected demographic information (see Table 2) and presented the participant with a description of the leadership role for which they were highly rated (as in Table 1). Then, participants were invited to share their reflections on the preparatory task, before we explored the following via a semi-structured interview guide: (a) the leader's awareness of their perceived role (e.g., "why do you think your teammates rated you highly as a [task, motivational, social, or external] leader?"); (b) the role's perceived contribution to teamwork (e.g., "given the description you read earlier, how do you think [task, motivational, social, or external] leaders contribute to the teamwork of their teams?"; (c) their involvement in each higher-order aspect of teamwork (e.g., "how do you prepare the team to work together before a match, if at all?"); and, (d) the possible links between on- and off-field behaviors (e.g., "how important is leadership off the pitch to teamwork behaviors on the pitch, and why?"; see Supplementary Material for interview guide). Interviews were conducted virtually, lasting 69–127 min ($M = 90.0 \pm 26.4$ min). Focus groups and interviews were recorded via Dictaphone (Zoom Corporation, Japan) and transcribed verbatim.

2.4. Measures

2.4.1. Athlete leadership

We customized Fransen et al.'s (2015) leadership questionnaire for each team by listing all the team members on the squad as pre-set response options. Participants rated every teammate's task, motivational, social, and external leadership quality on a 5-point Likert scale from 0 *(very poor leader)* to 4 (*very good leader*) after reading the description of each role (see Table 1).

2.5. Data analyses

In the qualitative phases, we used deductive framework analysis (Ritchie & Spencer, 1994), developing a code sheet a priori based on high-quality athlete leadership (Fransen et al., 2020) and teamwork behaviors (McEwan & Beauchamp, 2014). Framework analysis was consistent with our critical realist-contextualist position because it occupies the middle ground between post-positivist and constructivist approaches—just as critical realism and contextualism are situated in the middle of their respective spectra of ontological and epistemological positions (Braun & Clarke, 2022). Our philosophical stance, critical orientation, and analytic method were deliberately aligned to enable us to offer explanatory insights into the leadership-teamwork relationship by exploring participants' lived, perceptual, and process-oriented descriptions of leadership behavior that may facilitate teamwork. In line with this, we sought to reflect participants' described or implied causal reasoning within our results and themes, aspiring to "offer explanatory rather than descriptive knowledge about why events occur in the patterned ways they do" (Smith et al., 2025, p. 6).

For the quantitative phase, we followed Fransen et al.'s (2015) SNA procedure to identify high-quality leaders as perceived by their teammates. SNA is theoretically flexible because it "does not imply the acceptance of any one particular theory of social structure" (Scott, 2017, p. 8), making it a suitable complement to deductive framework analysis.

2.5.1. Quantitative phase: SNA

The lacrosse and hockey teams' response rates were 83% and 68%, respectively. As some team members did not participate, we coded missing data as non-zero (i.e., using an alphabetic letter) to avoid confusing non-participation with a score of 0 *(very poor leader)*. No other imputation methods were used. We then created four N x N matrices, one for each leadership role, per team (as Fransen et al., 2015). Next, we calculated a centrality measure to understand each team's aggregated perception of every member's role-specific leadership quality. Centrality refers to an individual's position in their group's social structure, indicating their integration and contribution (Scott, 2017). Due to a 68% response rate from the hockey team, below the recommended 80% for reliable SNA (Shah et al., 2023), we deviated from Fransen et al.'s (2015) strategy by calculating Bonacich's indegree β-centrality instead of indegree centrality. We considered this measure, which calculates how central one is based on the centrality of the team members they are connected to (i.e., a member is more central if they are connected to more central teammates), to be a more robust indicator of leader status given the lower response rate. We calculated all participants' Bonacich's indegree β-centrality via SNA-specific software, UCINET (Borgatti et al., 2002). In this way, we identified which team members were perceived as high-quality leaders by other highly rated teammates on each role. We interviewed participants with the highest Bonacich's indegree β-centrality for task and motivational leadership quality from the lacrosse team, and those for social and external leadership quality from the hockey team.

2.5.2. Qualitative phases: deductive framework analysis

In line with Griffin et al. (2023), a six-step iterative process of deductive framework analysis was undertaken: (1) familiarization, (2) coding, (3) developing a framework, (4) applying the framework, (5) charting the data into a matrix, and (6) interpreting the data. Despite the deductive approach, we left room for induction to appreciate any unanticipated ideas that arose from discussions (Hatchard et al., 2019). To begin data analyses, the first author familiarized herself with the data by reading through every transcript while listening to its recording. Once satisfied with the familiarization step, she chose the longest transcript from the 11 (i.e., seven focus groups and four interviews) for independent coding by herself and another member of the research team (fourth author; Griffin et al., 2023).

During coding, the second step, the first and fourth authors used "other" to capture inductive data-driven ideas that were not reflected in the a priori code sheet (Parkinson et al., 2016). They then employed investigator triangulation to broaden and deepen their understanding of the participants' accounts (Carter et al., 2014), aiming for completeness rather than a convergence of ideas, in line with our critical realist-contextualist stance (Madill et al., 2000). During investigator triangulation, the two authors (a) listened to each other's perspectives, (b) made sense of participants' meaning, (c) articulated more representative descriptors for "other" coded quotations, and (d) reflected to identify relevant data. While investigator triangulation is often used to validate or confirm interpretations (Carter et al., 2014), we only used this approach to preserve novel perspectives that might have been overlooked by consensus-driven analyses (Madill et al., 2000). In the third step, we developed a framework by revising our code sheet to include all deductive and inductive codes. Next, in the fourth step, we applied this framework to the other 10 transcripts. We progressed iteratively between coding, developing the framework, applying it, and considering inductive codes. After this step, our framework consisted of 18 deductive (4 leadership, 14 teamwork) and 12 inductive (10 leadership, 2 teamwork) codes.

A key output of framework analysis is a matrix that maps salient data and aids interpretation (Gale et al., 2013). In the fifth step, we created a matrix in Microsoft Excel. Since the same code sheet was applied to focus group and interview data, we constructed a single matrix that included both. Each row represented one leadership role (e.g., task leadership) or

a leadership behavior code (e.g., leading warm-up), each column represented one teamwork behavior code (e.g., communication) or a behavior that facilitated teamwork (e.g., building cohesion), and each cell described an interaction between leadership and teamwork via the coded quotations charted into them (see Supplementary Material for matrix). Up to this step, focus group and interview data were analyzed separately. A strength of framework analysis lies in its flexible use (Gale et al., 2013); in our case, the matrix allowed for visual and systematic comparison of data within and across cells while preserving the distinct contributions of focus group and interview data (Lambert & Loiselle, 2008).

In the sixth step, we analyzed patterns by identifying which data contributed to which research question and examining the arrangement of quotations in the matrix. In this way, we were able to interpret the nuances, similarities, and differences among the cells, to understand how leadership roles and behaviors were perceived to influence teamwork. While the focus groups were designed to address RQ1 and the interviews to address RQ2, the semi-structured nature of our questioning and shared experiences of team sport participants led to some overlap in content. Indeed, focus group participants occasionally reflected on the roles and responsibilities of particular leaders (relevant to RQ2), while interviewed leaders discussed team-level dynamics (relevant to RQ1). Therefore, in this final stage of analysis, we neither limited our interpretations by drawing from only one dataset per research question, nor did we assign greater weight to either dataset. Instead, we combined both sources to pursue data completeness (Lambert & Loiselle, 2008). Additionally, researchers have noted this final step of framework analysis to be challenging due to the lack of prescriptive, how-to guides for interpreting the patterns in the matrix and developing themes (Parkinson et al., 2016). Thus, we referred to Braun and Clarke's (2022) guidelines for theme development in reflexive thematic analysis, a methodological cousin of framework analysis, to sense-make and organize the identified patterns into themes during this final step.

2.6. Rigor and trustworthiness

We assured rigor and trustworthiness in five ways. First, we enlisted OLM as a second coder due to her demographic similarity with participants, contrasting with EJS, a mature international student of Indian descent. OLM, in her early twenties and experienced as an athlete leader, was considered more attuned to the nuances of British team sport. This decision exemplifies reflexivity, specifically attention to cultural factors (de Cruz, 2022). Second, the research team's complementary expertise and collaboration enabled the study's conception and execution. For instance, RA contributed experience with qualitative inquiry, LM with quantitative methods in sport psychology, and DM with group dynamics and teamwork. These three members also acted as critical friends, prompting consideration of alternative interpretations (Smith & McGannon, 2017). For example, we initially developed 31 inductive codes, which were refined to 12 through systematic reflection anchored in the research questions (see Supplementary Material for reflection process).

Third, using complementary methods—specifically SNA within a dominant qualitative design—enabled us to identify the most suitable individuals to provide insight on each leadership role and its perceived facilitation of teamwork. Given that informal leaders were identified as the best leaders in any role by over 70% of participants (Fransen et al., 2014), it was prudent to use SNA to identify appropriate voices to explore our second RQ, rather than relying on those of formal leaders (e.g., captains). Fourth, by charting data into a matrix available to readers (see Supplementary Material), we provided audit trails that allow the source and development of our interpretations to be traced, thereby communicating transparency (Parkinson et al., 2016). Finally, we incorporated inductive, data-driven codes (e.g., identity leadership behaviors) to maintain openness within our deductive approach, thus allowing fresh, unanticipated insights to strengthen the study (Braun & Clarke, 2022).

3. Results

We developed four themes. The first two themes addressed RQ1 on how behaviors of task, motivational, social, and external leadership might be perceived to influence teamwork. The third and fourth themes spoke to RQ2, which explored how high-quality leaders in each role (i.e., task, motivational, social, and external) perceived they influenced teamwork. Interested readers may refer to the Final Matrix in the Supplementary Material to view the mapping between leadership roles and behaviors and specific teamwork behaviors.

3.1. Theme 1: social leadership lays the groundwork for effective teamwork

Practicing social leadership was believed to foster teamwork by providing a supportive environment. Participants reported listening to and comforting one another, offering advice to cope with challenges, and in the case of student-athletes, assisting teammates with schoolwork. They elaborated that these supportive interactions created a climate of trust and care which were foundational to engaging in other teamwork behaviors, especially those requiring feedback (e.g., performance monitoring). Participants often touted the supportive aspect of social leadership to be so central to teamwork that many prioritized the expression of care over execution behaviors. For instance, H13[1] (focus group) shared that he would "rather have someone [in a leadership role] who cares more and is more invested emotionally versus someone that's a great, perfect communicator". Participants suggested that social leadership, expressed through care, encouraged interpersonal connections that may have primed the team to regulate performance:

> *I don't think a team works without it… It's not just about running drills and tactics … it's the little connections, a bit of eye contact, knowing and trusting that you know [a teammate's] going to make that lead, and then knowing and trusting that someone else is going to tuck in and cover for you and if you don't get on or understand the person you're dealing with, I just don't think it's possible.* (H21, interview)

Another aspect of social leadership, the promotion of fun and togetherness, also seemed to benefit player retention, possibly creating more opportunities to practice teamwork, as noted by L18 (interview), "less people dread coming to training because if you know everyone there, you know you're going to have fun … that means you spend more time together, you play more, you become better players, you trust each other." In this way, the merits of social leadership, an off-field role, may have translated onto the field. For this reason, participants believed that everyone on the team could demonstrate social leadership and on-field leaders, like F5 and F17, should engage in it more to facilitate teamwork:

> *Say me and [F17] made an effort with the ones who've just come in … even if it's like go for a drink or we had a chat with them, help them with their work … I think that has a massive impact not just like off the pitch as mates, but on the pitch because I feel like you can be a lot more frank, a lot more honest and open without like fear of, I don't know, say the captain getting angry at you.* (F5, focus group)

Indeed, participants believed that the initiative of certain members—later identified through the SNA data as social leaders—to organize social opportunities may have fostered familiarity and closeness, giving team members the confidence to be honest when problem-solving and providing performance feedback. Team members also reported feeling

[1] Each participant was given a unique identifier starting with F, H, or L to represent the sports team they were part of (soccer, hockey, and lacrosse, respectively) and a random number that was not associated with their jersey numbers or any other identifiable information.

emboldened to challenge and back one another, take risks, and make mistakes to improve:

> *A team who are willing to egg each other on to be better … encouraging mistakes in training, you know I think we need a team where you're willing to go up against each other and you're willing to get physical and push each other but also happy to allow your teammates to mess up and go again and work hard for each other.* (H21, interview)

The social leader we interviewed, H21, also caveated his leadership skills by saying they "aren't always the nice bits". In agreement, other leaders shared that they understood social leadership to be about authentically knowing their teammates and using that information when supporting and challenging them. In this way, participants suggested that social leadership could lubricate difficult conversations or unsavory feedback, contributing to teamwork behaviors like performance monitoring and intrateam coaching. As summarized by H23 (interview), "you probably got to understand what the team needs so there's an empathy to, you know, a real inclination to get perspective on what everyone's going through … you got to be who they'd come to". In sum, doing social leadership well seemed to be a pre-requisite for effective teamwork because participants believed it could create and sustain a caring environment in which team members felt supported to perform teamwork behaviors.

3.2. Theme 2: task and motivational leadership drives teamwork

Participants perceived task leadership to facilitate the: (a) execution of game plans via the team's cooperation, coordination, and communication; (b) evaluation of the team's progress (i.e., performance monitoring); and (c) adjustments to how the team trains and competes by engaging in problem-solving, backing-up behaviors, and intrateam coaching. Participants observed that those team members who imbued motivational leadership also facilitated a subset of these behaviors, namely, communication, performance monitoring, backing-up, and intrateam coaching, especially when the team's morale was low. Several participants, particularly the lacrosse and soccer players, shared how they believed that "motivational yelling" or "hyping" during vulnerable moments helped them endure difficulty to eventually triumph. Unlike task leadership, participants noted that motivational leadership was also involved in providing psychological support, potentially by extolling teammates' strengths and boosting their confidence. For instance, L2 (interview) shared that "making sure that people recognize their own value within the team is a big thing … hyping people up … making sure they know that that's like a big thing to help people."

Although task and motivational leadership are on-field roles, there might be some differences in how they are perceived to influence teamwork. Based on the matrix populated by participants' quotes (see Supplementary Material), task leadership seemingly facilitated a wider range of teamwork execution, evaluation, and adjustment behaviors, while motivational leadership appeared to have a supporting role by promoting a smaller subset of those behaviors. As with social leadership, participants felt that motivational leadership was a role best shared by all team members. Task leadership, on the other hand, was expected from team members who played certain positions (e.g., goalkeepers) or had superior sport-specific competence (e.g., star players). These team members needed to effectively communicate, coordinate, and cooperate with their teammates to carry out team tactics:

> *I feel I've got quite a key role in that communication basically from the back so communicating to my defense, you know, I was leading them in a way of telling them where the forwards are, channels to mark and stuff like that.* (H8, focus group)

However, teamwork execution seemed to define the extent of task leadership for certain roles; in H8's case, if goalkeepers were not playing, they were not perceived as displaying task leadership. In contrast, task *leaders*—those rated highly on task leadership in the SNA data—were often also deemed the most skilled players on the team, as mentioned by participants. In addition to teamwork execution, task leaders were perceived to monitor and adjust performance through feedback, decisions, and problem-solving:

> *Without them [specific members], where would you be, what would you do, you know. When things are going bad, who would you look to. Yeah, it can be so demoralizing if you're conceding, if you concede and you concede again, and in that moment, where do you go and that's really the leaders.* (H13, focus group)

It appeared that superior expertise not only differentiated task *leaders* from other members who displayed task *leadership,* but it also seemed to set the task leaders apart as the go-to resource in matches. However, when it came to warming-up before matches or training, both task and motivational leaders were deemed central figures. Indeed, participants mentioned that leading warm-up was a key activity to prime and facilitate teamwork. For instance, the lacrosse team described themselves as "unfocused halfway through the year" (L2, focus group) and their three captains "had like a meeting and had to restructure because we kept losing" (L13, focus group). Their "captains kind of led the change, so they restructured the warm-up" (L2, focus group) because the team was starting their matches poorly and needed to rehearse their coordination, cooperation, and communication to ready themselves to compete. According to SNA data, their captains were highly rated in both task and motivational leadership. In sum, participants perceived task and motivational leadership to be key facilitators of teamwork execution, evaluation, and adjustment behaviors during training sessions and competitive matches.

3.3. Theme 3: task and external leaders support or hinder coaches' teamwork efforts

The third theme highlighted the unique contribution that high-quality leaders may make to teamwork, distinct from the leadership shared across the team. Specifically, we inferred from participants' accounts that coach-athlete relationships—particularly those with highly rated task and external leaders—may have either augmented or undermined coaches' efforts to facilitate teamwork. Mostly, participants believed those leaders supported their coaches by extending their coaches' leadership (e.g., repeating coaches' instructions) to help keep teammates disciplined and focused on tasks. They were also perceived to organize the team when their coaches were not around (e.g., self-practices): "we have had a few captain-led sessions when the teachers aren't here and during those sessions, captains step up, organize everyone" (L9, focus group). Furthermore, these leaders were seen to function as the go-between to assist with coaches' planning: "telling us where to be, you know what time to show up, putting messages in the chat as captain …. A big role for the captain is to communicate with [Coach] and to be the point of contact" (H13, focus group). However, participants also noted that when tensions arose between task leaders and coaches, the task leaders were sometimes observed undermining coaches by making on-field decisions that contradicted game plans or by engaging in discouraged tactics, which could hinder teamwork. In particular, these tensions seemed to inhibit risk-taking to innovate:

> *[Coach] will probably still be angry but he's never going to vent his frustration at [H12] …. Whereas there's an awful lot of people in that team that, if they took a tenth of the risk [H12] did, know they wouldn't be playing next weekend.* (H21, interview)

The lacrosse and hockey teams reported different experiences of innovation and, perhaps, the relationships between their coaches and task leaders can shed some light. While L14 (focus group) felt encouraged because "[Coach] really praises people that are creative and trying out new cool stuff", H21 (focus group) felt conflicted because his task leader told him that "if you want to run-tackle-pass this year, you'll get in the team but if you want to be a good hockey player, take risks and get

dropped." Caught in a fix, some hockey players felt they had to choose between their coaches' and on-field leaders' instructions, with the former determining their selection and the latter regulating team performance. Perhaps, leadership from other types of leaders or members could offer a potential solution:

> *Senior players, we sometimes voice out frustrations to each other about certain things but we don't actually discuss it with the coach so I think there should be a better bridge between the coach and players in general but certainly [H12] and other players, you know, who take on certain leadership responsibilities.* (H14, focus group)

Additionally, a "better bridge" was deemed necessary because athlete leaders expected to have limited influence over certain teamwork behaviors such as preparation, systems monitoring, and innovation, as they formed a key part of the job descriptions and expectations of professional coaches: "I agree that [Coach] sets a lot of the goals but ultimately [Coach] is paid to do that …. It's good to be consulted on communal goals, but ultimately, [Coach] is responsible for creating an environment" (H23, interview). According to participants, certain members are well-placed and sufficiently skilled to manage disagreements between the staff and team. As seen in Table 1, external leaders are described as de facto team spokespersons. The external leader we interviewed suggested that those same skills could also facilitate teamwork if the leader maintained positive relationships to effectively broker staff-team relationships. For instance, external leaders could contribute to teamwork by advocating for their teammates to coaches and vice versa, helping both understand one another, especially when direct communication was avoided:

> *I think one of my key roles is taking heat off people … I'm probably trusted to temper [Coach] a little bit …. [Coach] just started making quite ruthless decisions which I didn't necessarily agree with, and I'd sit and chat to him about it …. I think the team probably trusts me to have their back.* (H23, interview)

In sum, participants felt that task and external leaders might facilitate teamwork by supporting or hindering their coaches' efforts to manage and prepare the team, though coaches seemed mainly responsible for preparation, systems monitoring, and innovation.

3.4. Theme 4: leaders make teamwork contagious

Participants' accounts suggested that teamwork might be contagious. Specifically, they perceived influential members to perform various behaviors that facilitate teamwork (as elaborated in Themes 1 and 2) and encourage their teammates to follow their example. In doing so, participants implied that a positive "feedback loop" between shared leadership and teamwork might have been created throughout the team, spreading teamwork. The lacrosse team exemplified this interpretation when speaking about their captains, "they are such team players, that sort of thrives in our team … they encourage teamwork because they do it themselves" (L7, focus group). Formal leaders (e.g., team captains) were also deemed to play a key role in encouraging shared leadership:

> *[The captains] see themselves as equal … which is why I think the leadership in our team isn't so kind of like focused on certain people, it's very much like a shared thing … I think everyone's pretty good at leading in all areas.* (L14, focus group)

Participants seemed unanimous in their expectation that their leaders lead by example and prioritize the team's needs while serving its goals. We found that our deductive leadership codes insufficiently represented these ideas, so we included four inductive codes that described how leaders behaved: (a) being one of us and leading by example; (b) crafting a sense of us; (c) championing the team and doing it for us; and (d) making us matter. Leaders reported behaving in these ways to promote teamwork. For example, F17 (focus group) adopted a more talkative persona to initiate healthy communication: "I'm probably more of a quieter player but I try and lead like by example, and try and always be the one that's working hard and talking and kind of set the tone for the rest of the session". His teammate, F5 (focus group), recalled an instance when their coach was being punitive and he had to craft a sense of "us" to refocus the team on their goals, "it's not about whether [Coach] is pissed off and he's taking it out on us, like anything that we're doing is helping us".

Making the distinction between effective and ineffective leaders, L6 (focus group) spoke about how effective leaders could champion their teams by backing their teammates up: "I think a good leader like wants to bring the team up but then a bad leader, to make themselves feel like they are a good player, might push other people down". The athlete leaders we interviewed also believed in putting their teams first:

> *I think a social leader needs to be willing to put the priorities of the team before themselves so whether I'm having a bad game, you need to be aware that your role is bigger than your own performance, that's what I got to work on.* (H21, interview)

In sum, participants observed that team-first leaders may mobilize followers to create "leaderful" teams, perhaps facilitating and spreading both shared leadership and teamwork.

4. Discussion

We explored the perceived influence of shared athlete leadership on teamwork through focus groups with team members and individual interviews with high-quality task, motivational, social, and external leaders. To answer RQ1, which pertains to how leadership roles and behaviors might be perceived to influence teamwork, we identified two themes. First, social leadership distributed across the team may have laid the groundwork for effective teamwork by creating a caring, safe, and supportive environment. Second, task and motivational leadership might have regulated team performance by driving teamwork execution (e.g., communication), evaluation (e.g., performance monitoring), and adjustment (e.g., problem-solving). For RQ2, which focuses on how high-quality leaders perceived themselves to influence teamwork, we identified two themes. First, task and external leaders may have supported or hindered coaches' efforts to facilitate teamwork. Second, leaders might have spread teamwork by setting good examples for their teammates to emulate.

Our first theme centers on team members' provision of psychological support to one another. Specifically, team members were said to provide each other with emotional (e.g., listening, comforting), informational (e.g., offering advice to cope with challenges), and tangible (e.g., assisting teammates with schoolwork) support. These forms of support have been found to buffer the potentially harmful impact of training problems and competitive pressure on performance (Rees & Hardy, 2004). Psychological support from teammates is critical for the development and success of athletes, because it can prevent or mitigate stress, modify stress responses, and enable coping (Freeman, 2021). However, as seen from the SNA data of our participating teams, there can be a tendency for *much* support to be provided by the *few* (i.e., those high in social leadership) to the *many* (i.e., rest of the team). This disproportionality, while initially promoting psychological support and teamwork, could potentially exhaust high-quality social leaders, leading them to perhaps disassociate from their teams and reduce their teamwork contributions (Shah et al., 2023).

In addition to psychological support, we also found that social leadership was potentially important for the congenial team atmosphere (i.e., social cohesion) and united pursuit of team goals (i.e., task cohesion) that our participants reported. Task and social cohesion are positive correlates of teamwork (McEwan, 2020). Moreover, Loughead et al. (2016) found that social leadership was the strongest predictor of social and task cohesion in their sample, in 67% and 24% of teams, respectively. Additionally, social leadership, which involves prioritizing team interests over individual ones, can resemble identity leadership (i.e.,

acting in ways that promote a team's sense of "us"), which has been shown to predict teamwork both directly and indirectly by strengthening team identification and fostering psychological safety (Fransen et al., 2020). Hendrickx et al. (2024) also found that social leadership had the strongest correlation with team identification among the four leadership roles. Recently, a longitudinal study found that feeling understood by teammates mediated the relationship between captains' identity leadership and perceived psychological support, a teamwork behavior (Hillson et al., 2024). Overall, social leadership may be necessary for togetherness and priming an environment conducive to effective teamwork. Longitudinal research is needed to test the mechanisms through which social leadership might foster teamwork, starting with extant possibilities such as facilitating cohesion, strengthening identification, cultivating psychological safety, and promoting interpersonal understanding.

Our second theme posits that task and motivational leadership may regulate team performance by driving teamwork execution, evaluation, and adjustment. While motivational leadership appeared to primarily support morale through encouragement, downplaying mistakes, and instructive feedback, task leadership seemed to have broader perceived influence. That is, task leaders were expected not only to coordinate, problem-solve, back-up teammates, and offer intrateam coaching, but also to facilitate collaboration that enabled the leadership of *others* to emerge and to make final decisions guiding team action. Our qualitative interpretations support Mertens et al.'s (2021) quantitative findings that teams exhibiting the most centralized, yet shared, task leadership—characterized by a handful of members demonstrating the highest-quality leadership—also reported the strongest team identification and confidence, along with the most favorable subjective performance ratings.

Given their playing expertise, task leaders may facilitate teamwork execution and team effectiveness through more sophisticated and efficient mental models than their teammates, as well as perceive an obligation to contribute (Filho et al., 2014). Lex et al. (2015) observed this in veteran soccer players, who made swifter and more effective decisions than their less experienced peers, making them better at disseminating and coordinating their teams' tactical plans. Studying brain activity, Filho and Tenenbaum (2020) explained that proficient individuals such as task leaders are also capable of avoiding in-task mental overload and can allocate cognitive resources to adjust for their teammates' errors. Therefore, task leaders may facilitate teamwork by enabling better coordination as well as backing-up their teammates who may inadvertently disrupt coordination. In addition to sharing the on-field workload, having multiple task leaders is also crucial for leadership continuity as team rosters may change from season to season (Leo et al., 2019). Overall, the findings from the present study suggest that, once social leadership has primed the interpersonal environment, task and motivational leadership are perceived to be key facilitators of effective teamwork, but further research is needed to test this notion.

Through our second theme, we began to note differences in the perceived influence of leadership versus leaders on teamwork. These distinctions became apparent in our third theme, which showed that high-quality task and external leaders could uniquely influence teamwork; their coach-athlete relationships could either support or hinder coaches' efforts to facilitate it. Reciprocal complementarity—cooperative give-and-take interactions where the coach leads and the athletes follow—is a feature of effective coach-athlete relationships (Jowett, 2017). For instance, our sample perceived that coaches often initiated teamwork preparation behaviors, systems monitoring, and innovation, instructing athlete leaders to carry out supportive actions. By aligning with these instructions, athlete leaders engaged in reciprocal complementarity, thereby maintaining effective coach–athlete relationships and extending their coaches' leadership within the team. By viewing coach leadership through the theoretical lens of transformational leadership (i.e., four leadership behaviors that focus on followers' personal development), we can appreciate the alignment between certain teamwork behaviors and key leadership behaviors that coaches use to build healthy, effective relationships with athletes (López de Subijana et al., 2021). For example, coaches articulate a compelling vision and motivate athletes to buy-in, akin to the teamwork behavior of mission analysis; coaches specify group goals and facilitate collective striving, which precisely describes goal specification and planning (López de Subijana et al., 2021). Indeed, McEwan et al. (2023) found small-to-medium positive correlations between athletes' perceptions of teamwork preparation, evaluation (e.g., systems monitoring), and adjustments (e.g., innovation) and their coaches' transformational leadership. Overall, athlete leaders may rally their teammates to engage in coach-led teamwork preparation, systems monitoring, and innovation—key responsibilities that define a coach's role and effectiveness.

On the other hand, tenuous relationships between coaches and task leaders might disempower coaches from facilitating teamwork, as noted by our sample. We extend quantitative evidence that athlete leadership has a small-to-moderate positive effect on teamwork execution (Fransen et al., 2020; López-Gajardo et al., 2023), by suggesting that task leaders, in particular, may either strengthen or undermine teamwork execution. They can align team coordination, cooperation, and communication with coaches' plans or work against them. We also propose that high-quality external leaders may mitigate the potential negative impact of task leaders by brokering better coach-athlete relationships. Typically, external leadership has been excluded from studies on team processes, based on the assumption that it negligibly contributes to intra-team relations compared to other roles (e.g., task leadership; Fransen, Decroos, et al., 2016). Nevertheless, there is room to broaden or narrow the scope of any leadership role based on the group's context (Fransen, Haslam, Steffens, Peter, et al., 2020). The external leadership role, first introduced by Loughead et al. (2006), included behaviors such as advocating for the team to the coaching staff, though other work has emphasized its function in managing team reputation (Fransen et al., 2014). According to our participants, external leaders could have more to offer—for example, recognizing and leveraging these leaders' superior interpersonal skills to improve dialogue in the team could potentially enhance feedback activities during performance monitoring. Based on our findings, we challenge suggestions to disregard external leadership in team processes and suggest broadening its scope to include player and coach/staff advocacy.

Our fourth theme suggests that when a critical mass of influential team members (i.e., formal and informal leaders) consistently promoted teamwork, their behavior was perceived to encourage others to follow, creating momentum that allowed teamwork to spread through the team like a contagion. The social identity approach to leadership offers one theoretical explanation for how leaders may spread teamwork: leaders who "create, embody, advance, and embed a shared sense of us" (p. 48) can galvanize followers to act in ways that promote the team's shared identity and the achievement of shared goals (Steffens et al., 2020). The participants in our sample noted that their leaders *embodied* what it meant to be a part of the team by consistently engaging in teamwork behaviors (e.g., communication, problem-solving) and *advancing* the team's interests, rather than their own. Indeed, recent writing on identity leadership programs in sport (Fransen et al., 2020) and business (Haslam et al., 2023) suggest that team-first leaders, or "teamful" leaders, develop "leaderful" teams, whereby shared leadership and the team processes that contribute to team effectiveness (e.g., teamwork in sport) positively reinforce one another.

Although contagion has never been studied in the context of teamwork, it has been examined in relation to team confidence. Through experimental manipulations, researchers studied the effects of confederate team leaders expressing varying levels of team confidence in their newly formed soccer (Fransen, Steffens, et al., 2016) or basketball (Fransen, Haslam, et al., 2015) teams. Results revealed that when the team leader exhibited high confidence in the team's success, team members, too, felt greater confidence in their team's success and perceived their teammates to feel the same (Fransen, Haslam, et al.,

2015). The contagion of team confidence from leaders to members was partially explained by the leaders' perceived identity leadership and the members' team identification—leaders' team confidence can spread to enhance members' team confidence by strengthening members' team identification (Fransen, Steffens, et al., 2016). We propose that teamwork might spread via similar mechanisms. Although informal leadership strengthens over time as leadership structures become more shared and less hierarchical, athlete leadership is unlikely to exhibit contagion in a similar way, as having too many leaders may yield diminishing returns (Mertens et al., 2021). Overall, future longitudinal studies could expand on this novel insight—that shared athlete leadership makes teamwork contagious—offering practitioners evidence-based guidance for developing effective leadership interventions.

Our findings support recent suggestions that teams may benefit from a hybrid approach to shared leadership (Fransen et al., 2020). This approach combines an appointed group of select high-quality leaders with the informal leadership that naturally emerges from interactions among team members, rather than relying solely on either a centralized hierarchical or a fully decentralized shared leadership structure (Cotterill et al., 2022). Furthermore, even when leadership is shared, it is rarely *equally* shared amongst *everyone* (Mertens et al., 2021), as shown by the SNA of our participating teams. A hybrid approach combines the advantages of shared and hierarchical leadership, as well as minimizes the drawbacks of either approach (Fransen et al., 2020). For instance, one disadvantage of completely distributing leadership in a team (i.e., having no appointed leaders) is that most decisions become consensus-based (Zhu et al., 2018), which can hinder the agility of leadership structures in responding to dynamic teamwork needs. Appointed leaders "are often best placed—by virtue of their expertise and legitimate power and authority—to implement change" (Fransen et al., 2020, p. 2), and they can aid teamwork by quickly reviewing and redistributing team members' roles and responsibilities to meet their team goals.

As a practical implication, we suggest developing a hybrid approach to shared leadership theme-by-theme to enhance teamwork, starting with: (a) encouraging *all* team members to demonstrate greater social (Theme 1) and motivational (Theme 2) leadership; (b) appointing *a few* high-quality task and external leaders who can regulate team performance (Theme 2), support coaches' preparations, and foster positive coach-athlete relationships (Theme 3); and (c) ensuring that leaders engage in teamwork consistently and frequently (Theme 4). Considering the latter point, coaches and practitioners may seek to establish a critical mass of leaders in their teams. Though determining the optimal number of leaders is an inexact science, Crozier et al. (2013) suggested that the more informal leaders a team has, the greater the benefits to team processes (e.g., teamwork) and outcomes (e.g., performance). Further, Leo et al. (2019) concluded that a professional soccer team would be more effective with three task leaders, two social leaders, and two external leaders rather than one or none in each role, while noting that team context (e.g., gender) is important.

Several conceptual implications also arise from our findings. First, our results suggest that the conceptualized antecedent-consequence relationship between shared athlete leadership and teamwork may be more nuanced and less straightforward than initially believed (McEwan & Beauchamp, 2014). For instance, athlete leadership did not seem particularly relevant to some teamwork behaviors (e.g., preparation) while certain leadership roles only engaged in very select teamwork behaviors (e.g., social leadership and psychological support). Thus, ascertaining the contribution that shared athlete leadership makes to overall teamwork may be difficult. Second, this nuanced relationship begs the question if all behaviors are equally essential for overall teamwork. If shared athlete leadership is a key driver of teamwork, then those behaviors that athletes perceive more direct influence over (e.g., teamwork execution) might be more consequential than others (e.g., teamwork preparation) to promote overall teamwork. Third, our findings imply that external leadership should be explored in future research on team processes.

Noteworthy strengths of this study lie in our novel use of an embedded mixed-methods design to gather perspectives through focus groups on how shared leadership might be perceived to influence teamwork; identify the highest-quality task, motivational, social, and external leaders via SNA; and interview those leaders about their roles in facilitating teamwork. We present, to our knowledge, the first study to explore the distinct yet interrelated concepts of leadership as a process of influence and leaders as influential persons in the context of teamwork. That said, a limitation of our study design was its highly involved procedure, which resulted in the withdrawal of many participants. Relatedly, we did not have enough participation from the university soccer team, which precluded the inclusion of perspectives from university athlete leaders. To advance this area, researchers could facilitate focus groups with athlete leaders from a single team (e.g., leadership groups) or those in the same role across different teams (e.g., task leaders from various sports), to explore how athlete leaders work together or in different contexts to enhance teamwork.

In conclusion, we explored how shared athlete leadership might be perceived to influence teamwork via focus groups with team members and interviews with high-quality task, motivational, social, and external leaders in a mixed-methods study. We found that the perceived influence of shared athlete leadership on teamwork is likely nuanced, with certain leadership roles more pivotal to the promotion of specific teamwork behaviors. As an immediate next step in building on this work, we suggest developing and testing hypotheses to better understand the nuanced relationship between shared leadership and teamwork.

CRediT authorship contribution statement

Eesha J. Shah: Writing – review & editing, Writing – original draft, Software, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Rachel Arnold:** Writing – review & editing, Supervision, Resources, Methodology. **Lee Moore:** Writing – review & editing, Supervision. **Olivia Lyon-Monk:** Formal analysis. **Desmond McEwan:** Writing – review & editing, Supervision, Conceptualization.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.psychsport.2025.103060.

Data availability

Our research data can be found on OSF and the appropriate links (labelled Supplementary Material) have been provided within the manuscript.

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