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Effects of coach leadership and coach–athlete relationship on collective efficacy

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The study examined the independent and combined effects of coach leadership and coaching relationships on team efficacy. A total of 150 sport performers from football teams across a range of competitive levels completed a multisection self-report instrument to assess their individual perceptions of the level of collective efficacy, the type of coach leadership, and the quality of the coach–athlete relationship. Multiple regression analyses revealed that perceptions of both coach leadership and the coach–athlete relationship predicted variance in team efficacy. Overall, the findings suggest that the quality of coach–athlete relationships added to the prediction of individuals' collective efficacy beyond what was predicted by coaches' behaviors of leadership alone. Limitations and future research directions are discussed.

At the 2004 Athens Olympic Games, the U.S. basketball team was the overwhelming pretournament favorites with good chances for at least an Olympic medal; however, they were humbled in the group stages by the supposed inconsequential Puerto Rican team. The U.S. squad went on to be beaten twice more and ultimately only managed to earn a bronze medal. Subsequently, the question that sport psychology researchers and theorists have recently started to unravel is, "How is it that teams with mediocre players can sometimes outperform teams of superior talent during a match, series or possibly an entire season?" (Chow & Feltz, 2008, p. 222). An answer to this question has been thought to reside in the concept of collective efficacy. Collective efficacy is defined as a group's shared confidence in their conjoint capabilities to successfully organize and perform collective tasks (see Zaccaro et al., 1995). Moreover, Bandura (1997) has suggested that it is also appropriate to view collective efficacy as individual perceptions toward the team's capabilities on the basis that such individual perceptions may more accurately represent each team members' beliefs of the team's capabilities. Whether collective efficacy is considered as a group's shared confidence or individual perceptions of team member's beliefs, collective efficacy as a concept can exist within Bandura's (1986) social cognitive theory in which individuals are thought to both produce and be producers of who they are and how they interact within the environment. Accordingly, Bandura (1997) has proposed four sources of efficacy (including collective efficacy): mastery experiences, verbal persuasion, vicarious experiences, and motivational climate. Despite this, research on collective efficacy is at an early stage in comparison to the study of other forms of efficacy such as self-efficacy. Thus, this study aims to extend the relevant literatures by attempting to examine independent and combined effects of sources of collective efficacy in the sporting context of football.

Feltz and Chase (1998) highlighted a number of sources of collective efficacy within the context of sports including past performances, leadership/verbal persuasion, vicarious experiences, motivational climate, group cohesion, and team size. Mastery experiences reflective of previous performances have been postulated to be among the most powerful sources of collective efficacy beliefs (Bandura, 1997). Recent studies have evidenced that previous performances were direct predictors of a group's confidence levels, whereby confidence increased after a win and it decreased after a loss (see Feltz & Lirgg, 1998; Myers et al., 2004). Furthermore, in a longitudinal study, Watson et al. (2001) found that the effect sizes of other efficacy sources diminished as the season developed and teams had a greater quantity of results to inform their confidence beliefs. The findings related to other sport-specific socio-psychological sources of collective efficacy including coach leadership and team cohesion have lacked sustained research. Nonetheless, these findings are informative and pave the way for more and better research in the field.

Zaccaro et al. (1995) were among the first to explain that team cohesion may affect the level of collective efficacy within a team. In turn, Paskevich et al. (1999)

found that task cohesion was positively linked to collective efficacy. Similarly, Heuzé et al. (2006) revealed that both components of task and social cohesion were positively related to beliefs of collective efficacy. More recently, Jowett et al. (2012) have reported that task cohesion is a better predictor of collective efficacy than social cohesion. Moreover, Jowett et al. have also revealed that not only team cohesion among team members but also relationship quality among coaches and athletes is predictive of collective efficacy.

Just as for research that examines associations between team cohesion and collective efficacy, research that examines associations between coach leadership and collective efficacy is limited. There are only two studies to our knowledge that have found associations between coach leadership behaviors and collective efficacy (Ronayne, 2004; Keshtan et al., 2010). Moreover, a study conducted by Jung and Sosik (2002) indicated that transformational leadership (i.e., leaders' behaviors that promote followers' goals and enhance their confidence to increase one's own expectations) is positively related to collective efficacy. Transformational leaders focus on and care about followers and their personal needs and development (Bass & Avolio, 1994; Avolio et al., 1999). Thus, the followers of transformational leaders feel trust, admiration, loyalty, and respect for the leader, and because of the qualities of the transformational leader (i.e., personality, traits, and abilities), are willing to work harder than is ordinarily expected (Bass, 1985). Hence, one of the two primary purposes of the present paper is to address gaps and weaknesses in the extant literature concerning the psychosocial sources of coach leadership and coach–athlete relationship of collective efficacy.

The present study

Feltz and Chase (1998) mention coach leadership as a correlate of collective efficacy; however, the quality of the coach–athlete relationship is not mentioned in their proposed model of antecedents and consequences of collective efficacy within sport teams. Nonetheless, we propose its inclusion on two accounts. From a theoretical point of view, conceptions of leadership, especially as these pertain to transformational leadership, for example, appear to emphasize the relationship characteristics of leadership. Specifically, leaders and followers demonstrate mutual trust and respect for one another, commitment to one another and to the task at hand including working together to achieve goals (e.g., Bass, 1985). Accordingly, building quality relationships is essential to effective and successful leadership (Schruijer & Vansina, 2002). The quality of relationships between leaders and followers becomes an important element especially if one also considers that leadership is a function that can be shared and so neither the coach nor athlete can do it alone (Jowett & Chaundy, 2004). Athletes are unlikely to produce top-level performances without the support of their coaches and coaches are unlikely to be successful without the athletes' talent, commitment, and enthusiasm.

From an empirical point of view, there is evidence, albeit limited, to highlight that the quality of the coach–athlete relationship is directly linked to collective efficacy (see Jowett et al., 2012) and indirectly linked to collective efficacy through coach-created motivational climate (Olympiou et al., 2008) and team cohesion (Jowett & Chaundy, 2004), both of which have been hypothesized and empirically tested correlates of collective efficacy (Feltz & Chase, 1998; see also Paskevich et al., 1999; Magyar et al., 2004). Subsequently, in an attempt to expand the current knowledge and understanding of collective efficacy in sports, the current paper aimed to examine: (a) important psychosocial correlates of individuals' perceptions of collective efficacy, namely, coach leadership and the coach–athlete relationship; and (b) whether the quality of coach–athlete relationships can add to the prediction of individuals' perceptions of collective efficacy beyond what is predicted by coaches' leadership alone. Collectively, it is hypothesized that just like coach leadership, coach–athlete relationships provide a social context for developing collective efficacy beliefs (Jowett, 2008). Both social situations added together can thus provide an enhanced environment within which the group feels confident in their collective capabilities to perform collective tasks in a coordinated, well-organized, and successful fashion (cf. Zaccaro et al., 1995; Bandura, 1997). In this study, collective efficacy is viewed as an individual perception and is reflected in each member's belief of the capabilities of the collective. While assessing collective efficacy as a shared perception involves a certain degree of consensus, such an approach may result in scores that are not representative of all group members' beliefs. For that reason, in this study, collective efficacy was assessed as each member's perceptions of collective efficacy on the basis that individual perceptions may more accurately reflect a team's beliefs (Bandura, 1997; Jowett et al., 2012).

The significance of this study lies in its theoretical and practical significance. Theoretically, the quality of the coach–athlete relationship may be added to the conceptual model that maps out the antecedents and consequences of collective efficacy within sport teams (Feltz & Chase, 1998). The incorporation of the coach–athlete relationship is then more likely to provide an impetus for more research in this area. Practically, it would provide valuable information to sport psychology consultants as well as coaches and athletes themselves in terms of targeting important sources such as coach leadership behaviors and characteristics of the coach–athlete relationship to promote beliefs of collective efficacy in teams.

Method

Participants

A total of 150 (112 male, 38 female) British footballers participated in the study. The participants' mean age was 20.07 (SD = 1.50). Fifty-eight percent ($n = 87$) of the athletes played for university sides where sport is performed at competitive levels, 35% ($n = 52$) of the athletes played at regional levels, and 7% ($n = 11$) played at national and international levels. Sixty-nine percent ($n = 104$) of the participants had experienced a relationship with the target coach that spanned 1 year or less; the other 31% ($n = 46$) had experienced a longer than 1-year relationship with the coach. Fifty-four percent had participated in their sport for 10 years or less, the remainder (46%) for more than 10 years.

Instrumentation

The Coach–Athlete Relationship Questionnaire (CART-Q; Jowett & Ntoumanis, 2004) was used to assess the athletes' direct/self- and meta-perceptions of the quality of the coach–athlete relationship. The direct-perspective version of the CART-Q consists of 11 items, which measure three relational constructs: (a) closeness with the coach (three items; e.g., "I like my coach"); (b) commitment to the coach (four items; e.g., "I am committed to my coach"); and (c) complementarity with the coach (four items; e.g., "I am responsive to my coach's efforts"). The meta-perspective version of the CART-Q contains 11 corresponding items that are phrased in such a way to ensure that they reflect athletes' meta-perceptions. For example, an item from the meta-closeness subscale is "My coach likes me," an item from the meta-commitment subscale is "My coach believes that I am committed to him/her," and an item from the meta-complementarity subscale is "My coach believes that I am responsive to his/her efforts." The response scale for items on both versions of the CART-Q ranged from 1 ("strongly disagree") to 7 ("strongly agree"). Average scores for the direct and meta-perspectives of both the overall quality of the coach–athlete relationship and its subcomponents were calculated with higher scores representing more favorable perceptions of the quality of the coach–athlete relationship. The psychometric properties of these scales have been satisfactory (see Jowett & Ntoumanis, 2004; Jowett, 2009a, b). The Cronbach's alpha scores for the direct-perspective constructs with this sample ranged from 0.83 to 0.93 and the meta-perspective alpha values fell between 0.78 and 0.92.

The Leadership Scale for Sports (LSS; Chelladurai & Saleh, 1980) was used to assess athletes' perceptions of five coach leadership behaviors: (a) training and instruction (13 items; e.g., "My coach explains to each athlete the techniques and tactics of the sport"); (b) democratic behavior (nine items; e.g., "My coach lets the athletes share in decision making"); (c) social support (eight items; e.g., "My coach helps members of the group settle their conflicts"); (d) positive feedback (five items; e.g., "My coach tells an athlete when the athlete does a particularly good job"); and (e) autocratic behavior (five items; e.g., "My coach does not explain his/her actions"). The response scale ranged from 1 ("strongly disagree") to 7 ("strongly agree"). Average scores were calculated for each behavioral subscale with higher values representing a perceived greater tendency of the coach to display a particular behavior. The LSS initially had its construct validity confirmed through exploratory factor analysis (e.g., Chelladurai & Saleh, 1978). However, more recent factor analyses have highlighted that the instrument's factorial structure is problematic (Chelladurai & Riemer, 1998). Furthermore, Chelladurai and Riemer (1998) have also noted that the internal consistency of the autocratic behavior subscale is consistently low across a large body of studies. The Cronbach's alpha scores with this sample ranged from 83 to 0.94, except for autocratic behavior ($\alpha = 0.56$). However, the autocratic behavior subscale was retained for completeness.

Collective Efficacy Questionnaire for Sports (CEQS; Short et al., 2005) was used to assess athletes' perceptions of their team's collective efficacy. The CEQS comprises 20 items that measure the five major dimensions of group efficacy: (a) ability (four items; e.g., "Your team's ability to play better than the opponent"); (b) effort (four items; e.g., "Your team's ability to demonstrate a strong work ethic"); (c) persistence (four items; e.g., "Your team's ability to stay in matches when it seems your team isn't getting any breaks"); (d) preparation (four items; e.g., "Your team's ability to mentally prepare for this competition"); and (e) unity (four items; e.g., "Your team's ability to be united"). Participants were asked to rate the team's confidence in terms of performance in the upcoming game. The response scale ranged from 1 ("strongly disagree") to 7 ("strongly agree"). Higher values represented a greater rating of the team's confidence in their ability to successfully achieve certain targets. The psychometric properties of CEQS have been supported (Short et al., 2005). The Cronbach's alpha scores with this sample ranged from 0.81 to 0.91. Short et al. (2005) and Bandura (2006) suggested that if significant correlations are discovered between each of the CEQS constructs and the total collective efficacy score, then the overall score should be used to measure collective efficacy. The present study found highly significant correlations between each of the CEQS components and the total score of the measure ($r = 0.86$ to 0.92, $P < 0.01$). For that reason, the subscales were collapsed into one to represent the variable of collective efficacy.

Procedure

Ethical clearance for carrying out the study was obtained from the ethical committee of the authors' institution. The nature of the study, its objectives, requirements, voluntary, and confidential nature was explained to coaches and athletes. Permission to administer a multisection questionnaire to athletes was initially sought from the principal coach of all the teams' contacted. Upon consent of both coaches and athletes, questionnaires were administered by the first author following a mutually agreed date and time. Data were collected at the beginning of teams' training during February, which is approaching the end of the competitive season in England.

Data analysis and results

Descriptive statistics

Table 1 contains means (Ms) and standard deviations (SDs) of the main variables of the study. Bivariate correlations (*r*s) were also calculated and these values can be found in Table 2. The associations recorded appear to be conceptually coherent and thus positive coach behaviors and coach–athlete relational properties positively linked with individual team members' perceptions of collective efficacy, whereas the only negative coach behavior (autocratic) linked negatively with collective efficacy.

Inferential statistics: Hierarchical multiple regression

In order to reveal the unique contribution of individual athletes' perceptions of coach leadership and the coach–athlete relationship upon their perceived collective efficacy, a hierarchical multiple regression analysis using a stepwise method was performed. The independent variables were entered in a prespecified order that was dic-

Table 1. Means and standard deviations of coach leadership, coach–athlete relationships, and perceived collective efficacy

Construct	Total		Male		Female	
	M	SD	M	SD	M	SD
Training and instruction	5.18	0.989	5.17	1.05	5.19	0.78
Democratic behavior	4.79	1.13	4.76	1.16	4.87	1.04
Social support	4.38	1.01	4.36	1.04	4.46	0.91
Positive feedback	5.46	1.18	5.41	1.24	5.61	0.96
Autocratic behavior	3.92	0.91	3.96	0.94	3.83	0.81
Self-closeness	5.65	1.16	5.58	1.21	5.86	0.99
Self-commitment	4.95	1.14	4.87	1.18	5.18	1.01
Self-complementarity	5.52	1.08	5.48	1.11	5.65	1.00
Meta-closeness	5.24	1.01	5.20	1.06	5.34	0.86
Meta-commitment	4.81	0.94	4.74	0.98	5.01	0.78
Meta-complementarity	5.44	1.13	5.38	1.17	5.63	0.99
Collective efficacy	5.51	0.86	5.50	0.86	5.54	0.87

$n = 150$.

Note. All scores are from a possible scale range of 1–7. M, mean; SD, standard deviation.

Table 2. Bivariate correlations of leadership behaviors, the coach–athlete relationship, and perceived collective efficacy

Leadership/relationship variable	Collective efficacy
Training and instruction	0.32
Democratic behavior	0.38
Social support	0.41
Positive feedback	0.35
Autocratic behavior	–0.27
Direct-commitment	0.37
Direct-closeness	0.33
Direct-complementarity	0.29
Meta-commitment	0.45
Meta-closeness	0.37
Meta-complementarity	0.37

Correlations significant at <0.05.

tated by the purpose and logic of the research. Coach leadership and its behavioral dimensions of training and instruction, democratic behavior, social support, feedback, and autocratic behavior were entered into the first step because of it being a more established concept than the coach–athlete relationship within the sport psychology literature. The relationship variables were entered as follows: athletes' self-perceptions of closeness, commitment, and complementarity (3Cs) were entered into the second step and athletes' meta-perceptions of the 3Cs were entered into the third step.

Table 3 illustrates the variance in individual athletes' perceived collective efficacy (R^2 and Adjusted R^2), which can be accounted for by the coach leadership behavior variables and relationship variables, as well as the F statistic for the R^2 change. The results indicated that leadership behaviors [F (5, 144) = 10.16, $P < 0.01$], direct perspectives of the coach–athlete relationship [F (8, 141) = 7.78, $P < 0.01$], and meta-perspectives of the coach–athlete relationship [F (11, 138) = 6.7, $P < 0.01$]

Table 3. Effects of leadership behaviors and relationship components on collective efficacy

Predictor	Adjusted		F for change	P
	R^2	R^2		
Leadership	0.26	0.24	10.16	0.01
Relationship (3Cs)				
Direct 3Cs	0.31	0.27	7.78	0.01
Meta 3Cs	0.35	0.30	6.75	0.01

3Cs, closeness, commitment, and complementarity.

Table 4. Beta coefficients for variables within sets with significant F-values

Predictor	Collective efficacy	
	β	P
Leadership		
Training and instruction	0.01	0.98
Democratic	0.04	0.73
Support	0.35	0.01
Feedback	0.08	0.60
Autocratic	–0.27	0.01
Leadership		
Training and instruction	–0.04	0.80
Democratic	0.05	0.68
Support	0.30	0.01
Feedback	0.09	0.53
Autocratic	–0.22	0.01
Relationship (3Cs direct)		
Closeness	0.08	0.61
Commitment	0.23	0.07
Complementarity	–0.10	0.50
Leadership		
Training and instruction	0.03	0.85
Democratic	–0.02	0.85
Support	0.30	0.01
Feedback	0.06	0.68
Autocratic	–0.23	0.01
Relationship (3Cs direct)		
Closeness	–0.01	0.95
Commitment	0.11	0.40
Complementarity	–0.14	0.38
Relationship (3Cs meta)		
Closeness	0.36	0.01
Commitment	–0.08	0.51
Complementarity	0.04	0.83

3Cs, closeness, commitment, and complementarity.

all significantly predicted individually perceived collective efficacy. Table 4 contains the regression coefficients (beta values) for the variables within sets that reported significant F-values.

Discussion

While much of the research surrounding collective efficacy has tended to focus upon its outcomes, for instance demonstrating that high levels of collective efficacy are likely to produce better performances (Watson et al., 2001; Heuzé, et al., 2006), there has been limited

research investigating the sources of the construct. Given such findings, knowledge and understanding of the sources of collective efficacy could have significant practical ramifications for sports coaches who strive to develop players in successful teams. Therefore, the purpose of the present study was to assess important psychosocial correlates of collective efficacy and especially investigate whether coach leadership variables can predict more variance in their athletes' perceptions of collective efficacy when coach–athlete relationship variables are included. The intercorrelations suggested that both coach leadership behaviors and coach–athlete relationship properties are linked with athletes' perceptions of collective efficacy.

A close inspection of the hierarchical multiple regression analysis has shown that perceptions of coaches' leadership behaviors, namely, training and instruction, democratic behavior, social support, positive feedback, and autocratic behavior, accounted for 26% of collective efficacy variance. This finding is consistent with previous empirical studies (Ronayne, 2004; Keshtan et al., 2010). It also adds credence to theoretical assumptions related to the importance of leaders' actions to the promotion of collective efficacy (e.g., Yukl, 1989; Zaccaro et al., 1995). A review of the regression coefficients provides a more specific insight into which subcomponents of leader behavior have the greatest influence upon the presence of collective efficacy within sports teams such as football. The results indicate that both social support ($\beta = 0.30$) and autocratic behavior ($\beta = -0.23$) were significant predictors of individual players' perceptions of collective efficacy. Thus, the more personally supportive a coach is perceived to be by their athletes, the higher the efficacy levels of that group are likely to be, while lower collective efficacy is likely to be experienced when the coach is perceived to make all the decisions.

This finding is in line with research that has indicated that coach behaviors including social support (Keshtan et al., 2010) and autocratic behaviors (Ronayne, 2004) are significantly associated with collective efficacy. However, caution may need to be applied for the negative association found in the present study between perceived coaches' autocratic behavior and collective efficacy because of the low levels of reliability recorded for the autocratic behavior subscale. Nonetheless, the findings highlight that coaches' behaviors of social support, which are reflective of taking a more interpersonal and relational approach to coaching the athlete, can promote athletes' beliefs of collective efficacy. Thus, this is in support of Jung and Sosik's (2002) research where they found that transformational leadership and thus leaders who, among other outcomes, create a caring, interpersonal, and supportive environment, to be a predictor of collective efficacy.

In fact, the findings of this study underline the importance of the relationship coaches and athletes develop for collective efficacy. Athletes' perceptions of the coach–athlete relationship were also found to significantly predict collective efficacy. The hierarchical multiple regression analysis indicated that the addition of coach–athlete relationship properties (direct and meta-perspectives of closeness, commitment, and complementarity) to the coach leadership behaviors increased the variance in individual perceptions of collective efficacy accounted for from 26% to 35%. Therefore, an additional 9% of the overall variance was uniquely a consequence of the athletes' perceptions of their relationship with the coach. Specifically, athletes' direct commitment ($\beta = 0.23$) and meta-perceptions of closeness ($\beta = 0.36$), which are reflective of one's own levels of being close and committed over time to the coach and one's own perceptions of coaches' levels of liking, trusting, respecting, and appreciating the athlete, had the greatest influence upon the presence of collective efficacy within this sample of footballers. Closeness and commitment (Jowett & Ntoumanis, 2004; Jowett, 2009a, b) align well with the social support dimension of coach behavior (Chelladurai & Riemer, 1998) in that they both emphasize an interpersonal environment or a social situation that contains strong personal and affective bonds of care and support not only in the short-term (here and now), but also in the long-term (future). It would thus appear plausible to recommend the coach–athlete relationship just like coach leadership is a potential psychosocial source of collective efficacy and thus could be added to the antecedents of collective efficacy.

The links between the coach–athlete relationship and collective efficacy are also valuable for another reason. Collective efficacy is a key group variable among others, such as team cohesion, because it can help us understand group effectiveness. This study, in conjunction with Jowett and Chaundy (2004), which focused on team cohesion, highlights that collective efficacy and team cohesion (particularly task cohesion) are both predicted by direct commitment. Commitment (direct) may be an important source for group processes possibly because athletes who feel that their close relationship with the coach is going to last are more likely to readily invest in working closely together with the other team members (team cohesion/task) on one hand and in developing confidence in the teams' capabilities to perform collective tasks successfully (collective efficacy) on the other (see Jowett, 2008). Moreover, in this study, meta-closeness (which would seem to align well with coaches' social support behavior) was a predictor of individuals' perceptions of collective efficacy. This clearly indicates that relationship properties of closeness, commitment, and complementarity may have differential predictive powers of group processes that need to be noted. Overall, the findings suggest that coaches would be best advised to spend more time creating an interpersonal environment underlined by caring for, supporting, respecting, trusting, and appreciating the athletes that they work with. Athletes who know that their coaches are close to

them with long-term plans for their sporting development are more likely to feel truly integrated and thus a capable member of a team.

Although the study has generated valuable knowledge and understanding, its limitations should be noted. First, the cross-sectional study design employed produced a set of predictive, but not necessarily causal relationships. A longitudinal research design would enable stronger inferences regarding the patterns of causality of the concepts of both coach leadership and the coach–athlete relationship. This notion is strongly supported within the work of Zaccaro et al. (1995). They stated that it is not possible to determine the role that coaches' behavior plays on athletes' levels of collective efficacy without the implementation of longitudinal research measures. Cross-sectional research designs have not got the capacity to capture the dynamic aspect of social, personal, and group relationships as they change over the course of a season (Horn, 2002) and how each action may hold varying outcome effects in their athletes at different points in time. Related to this, the data of this study were obtained towards the end of the competitive season; thus, individuals' perceptions of collective efficacy may have been influenced by their teams' previous performances (see, e.g., Bandura, 1997; Watson et al., 2001). Longitudinal and experimental research designs can more readily and accurately control and exclude such confounding factors.

Second, the investigation examined the interpersonal factors and collective efficacy of athletes from just one sport (football). Consequently, this potentially limits the generalizability of the present results. Such a statement is made because of the findings of previous research articles which have demonstrated differences in the preferred and most effective leader behaviors between various types of sport (e.g., Terry, 1984; Kang, 2003). As a result, one cannot be certain that the results presented within this paper would be repeated in other team sports settings (e.g., rugby, hockey, cricket). Thus, it is recommended that future research should seek to test the relationships within other team sports and encourages studies that compare and contrast different team sports. If any differences are found between sports, then the advice, which is subsequently provided to coaches, could be more beneficial.

Finally, future research should investigate the effects of the coach–athlete relationship upon collective efficacy using a dyadic level of analysis research design. The inclusion of coaches' perceptions would build upon the knowledge developed from within this study. Specifically, this would help to explain whether individual (i.e., self) and/or dyadic (i.e., partner) perceptions of relationship quality are stronger predictors of collective efficacy in sports. Furthermore, an examination of distinct types of coach–athlete relationships would enable a better understanding of whether athletes' and/or coaches' perceptions of collective efficacy function similarly or differentially. For instance, is there a difference between same-gender vs cross-gender relations or between long-term vs short-term relations or between distinct performance levels (club vs national)? If differences are found, then this could provide a platform for generating very valuable and practical information relative to how coaches coach and the emphasis placed on the quality of coaching relationships within teams.

In summary, this study aimed to ascertain the extent to which different leader behaviors and the coach–athlete relationship independently and together associate with sport teams' levels of collective efficacy. The results have highlighted that leadership variables and relationship variables together accounted for more efficacy variance than did each set of variables separately. It is important that future research builds upon the present findings by examining how relationship and leadership patterns change over the course of a competitive season at an individual, dyadic, or team level and how these patterns affect collective efficacy. The generation of such information will add to our understanding of how the relative leadership behaviors and relationship qualities of a coach assume varying salience over the course of time and during specific yet noteworthy circumstances (e.g., success, failure, injury, burnout). Subsequently, recommendations would then be possible that aim to enhance the quality of coaching by equipping coaches with the tools necessary to increase players' confidence in their own and each other's capabilities to perform together successfully.

Perspectives

For coaches, athletes' shared confidence in their conjoint capabilities to organize and perform successfully collective tasks is an important issue as it can have important implications for their athletes' individual performance and team success. The findings of this study have theoretical significance as they add to the collective efficacy literature and to the group processes literature more generally by underlining the important role of coach–athlete relationships and coach leadership. They further supply potentially valuable practical information for coaches and coaching practices.

Key words: Coach leadership, coach–athlete relationships, collective efficacy.

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