The Differential Mediating Roles of Task, Relations, and Emotions Collective Efficacy on the Link Between Dominance and Performance: A Multilevel Study in Sport Teams

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The current study proposes a 3-factor model of group collective efficacy beliefs (GCE; Bandura, 1997), and the accompanying measure, grounded in the following distinct domains of abilities: group task management (GCE-task), management of the relationships among group members (GCE-relationships), and management of the emotions that arise within the group (GCE-emotions). We also test a multilevel model wherein the 3-factor GCE (i.e., GCE-task, GCE-relations, GCE-emotions) mediates the negative relationship between individual-level fear of dominance (i.e., a feeling of fear due to the actions of other group members who attack teammates) and objective team performance (i.e., team ranking at the end of the season). The study involved 315 athletes playing in 38 independent sport teams from 23 sport specialties. Results from the confirmatory factor analytic approach supported the validity of the 3-dimension GCE scale. Moreover, although individual-level fear of dominance was found to be negatively related to the 3 facets of GCE, it only exerted a negative indirect effect on team performance through GCE-emotions, thus demonstrating how members’ shared beliefs in distinct group capabilities shape teams’ outcomes. These findings enable us to: (a) establish the distinctiveness of 3 domains of GCE beliefs shared among group members (i.e., GCE-task, GCE-relations, GCE-emotions), (b) explore the extent to which these GCE beliefs are impaired by fear of dominance, (c) assess their differential effects on team results, and (d) examine the emergence of the role of emotion-related efficacy beliefs in predicting group results.

Keywords: group collective efficacy, task, emotions, fear of dominance, team performance

Group collective efficacy (GCE) is defined as a set of group members’ shared beliefs in the group ability to follow the courses of action required to produce given levels of attainments (Bandura, 1986). Furthermore, these beliefs are grounded in specific team members’ abilities (Bandura, 1997). For example, previous research has extensively studied GCE beliefs in performing the group task (Salanova, Rodríguez-Sánchez, Schaufeli, & Cifre, 2014; Short, Sullivan, & Feltz, 2005; Stajkovic, Lee, & Nyberg, 2009) as well as managing relational exchanges among group members (Caprara, Regalia, Scabini, Barbaranelli, & Bandura, 2004; Short et al., 2005). Therefore, GCE beliefs are domain specific (Bandura, 1997).

Despite the flourishing research toward understanding the development of collective efficacy beliefs in performing tasks and managing group members’ relational exchanges, to the best of our knowledge, no study has yet investigated GCE grounded in the specific domain of the team members’ abilities in managing emotions that emerge within the group. Hence, the first contribution of the present study is to pro-
pose a three-factor model of GCE grounded in the following three domains of abilities: (a) group task management (GCE-task), (b) management of the relationships among group members (GCE-relationships), and (c) management of the emotions that emerge within the group (GCE-emotions). In doing so, we seek to gain a better understanding of the collective efficacy theory by disentangling the contribution of task collective efficacy (GCE-task) from the other two underexplored domains of group members’ beliefs with regard to their relational (GCE-relationships) and emotional (GCE-emotions) competencies. The rationale for focusing on these three domains will be addressed in the following section.

The second literature gap that we attempt to fill is a lack of research on the differential roles that GCE-task, GCE-relationships, and GCE-emotions may play in predicting team performance. Although research has consistently shown a positive association between collective efficacy and team performance, there is virtually no study on the differential effects of members’ shared efficacy perceptions regarding group task, relationships, and emotions on group performance.

In addition to the group-level relationships between GCE-task, GCE-relationships, as well as GCE-emotions, and team performance, we also explore the individual-level variable of fear of dominance. Fear of dominance within the group is defined as the individual’s feeling of being intimidated due to the actions of other group members who attack or harass fellow group members (Michaelsen, Fink, & Knight, 1997). Although dominance may recall concepts pertaining to bulling or being targeted for aggression and mistreatment, we would like to remark that the construct of fear of dominance focuses on the emotional experience (i.e., fear, discouragement) associated to attacks from teammates, and related consequences on the individual’s beliefs on his or her group. Because rude attacks from group members can have a negative influence on group dynamics, weaken their beliefs in the group as a whole, and inhibit the scared individuals from participation in group life (Piezon & Ferree, 2008), we propose a multilevel mediation model that simultaneously examines fear of dominance among the fellow members as an individual-level predictor of GCE beliefs and GCE beliefs as a group-level predictor of group performance. Thus, an additional novel contribution of the current study is to explore the role of fear of dominance in the development of GCE beliefs, which in turn affect the achievement of team results.

Taken together, the primary purpose of the current study is to explore the role of fear of dominance (i.e., individual-level factor) in fostering group members’ shared beliefs in their conjoint task, relationships, and emotion management abilities (i.e., group-level factor), which in turn simultaneously but differentially predict team performance (i.e., group-level factor). By simultaneously examining the conjoint influence exerted by individual- and group-level factors that contribute to explaining group achievements, we seek to gain a better understanding of how fear of dominance dynamics impair group members’ confidence in their group abilities, and how members contribute to achieving team results depending on their shared beliefs with regard to distinct domains of group abilities (i.e., group task, interpersonal relationships, and emotions). To respond to the call of taking a multilevel approach when studying groups (Beauchamp & Eys, 2008; Kozlowski & Ilgen, 2006), we utilized a multilevel mediation model to examine how the individual members’ characteristics (e.g., fear of dominance) impact team performance through the team’s characteristics (e.g., collective efficacy beliefs). To control for the impact of common method bias, we collected a second-source objective team performance measure from public records at the end of the championship of the year of data collection. Our findings may encourage scholars to study previously overlooked group beliefs in the effective management of the relational exchanges occurring among members, and the emotions experienced by the members during their interactions, in addition to the collective belief in the group task achievement.

We begin by briefly reviewing the literature on group collective efficacy, and its relationships with group performance. Next, we introduce the theoretical construct of fear of dominance and provide supports for its relationship with group collective efficacy. Because our study was based on sport teams, the conceptual background will also include contributions contextualized in the sport settings.
Group Collective Efficacy Beliefs in Managing Task, Relationships, and Emotions

Perceived group collective efficacy is defined (Bandura, 1997, p. 477) as “group’s shared belief in its conjoint capability to organize and execute the courses of action required to produce given levels of attainment.” The group’s belief that they are capable of handling a situation (i.e., group collective efficacy) is a domain-specific concept, and strictly rooted in the group abilities to accomplish a specific activity. If the group possesses the set of skills required to perform a certain activity, then the experience of its successful completion will result in the development of the group members’ belief that their group is able to face similar situations. Hence, the group confidence in its competencies is specific for any given activity, or rather, domain specific.

Traditionally, GCE beliefs have been empirically investigated with regard to group abilities related to group tasks, such as obtaining its goals, coordinating its members, communicating effectively, solving problems, and defending from opponent teams. Because research about GCE in the task-competencies domain dominates both work and sport settings (Beau-champ & Eys, 2008; Salanova et al., 2014; Stajkovic, Lee, & Nyberg, 2009), empirical investigations focusing on the members’ beliefs regarding their group ability to handle members’ interpersonal relationships and manage the emotions emerging within the group are still scarce. Two important shortcomings in the GCE literature are noteworthy: (a) a lack of clear empirical distinctions among task-, interpersonal relationships-, and emotion-related GCE beliefs; (b) a lack of separate measures for these three GCE domains. Specifically, we argue that neither group-associated relational factors (e.g., cohesion, social loafing, conflict; Cooper & Burke, 2008; Leo, Sánchez-Miguel, Sánchez-Oliva, Amado, & García-Calvo, 2013; Manning, 2008) are measures of relationship-related GCE beliefs, nor group-associated emotional variables (e.g., anxiety, enthusiasm, emotional intelligence; Fransen et al., 2012; Salanova, Llorens, & Schaufeli, 2011) are measures of emotion-related GCE beliefs. Although we acknowledge the extensive and still flourishing research on the relational and emotional mechanisms that contribute to predicting, and/or ensuing from, group collective efficacy beliefs, those mechanisms are not included in the dimensionality and measurement of group collective efficacy, which we will address hereafter.

Recently, some initial debates over the ambiguity of the group collective efficacy measurement have arisen. For example, Fransen, Kleinert, Dithurbide, Vanbeselaere, and Boen (2014; p. 131) echoed previous comments on the lack of clarity in collective efficacy operationalization and measurement by investigating the structure of a five-factor measure of collective efficacy (Collective Efficacy Questionnaire for Sport- CEQS; Short, Sullivan, & Feltz, 2005), including ability (e.g., “to outplay the opposing team”), effort (e.g., “to play to its capabilities”), persistence (e.g., “to persist when obstacles are present”), preparation (e.g., “to devise a successful strategy”), and unity (e.g., “to be united”). Interestingly, their results revealed two (instead of five) distinct scales, which were labeled as process-oriented collective efficacy (i.e., the confidence in the team’s skills to accomplish processes that could lead to successes) and outcome-oriented team confidence (i.e., the confidence in the team’s ability to obtain a goal). Specifically, the outcome-oriented collective efficacy includes the ability dimension, whereas the process-oriented collective efficacy includes both the preparation measure with items tapping the task (i.e., “to devise a successful strategy”), and the unity measure with items tapping interpersonal relationships (i.e., “to be united”). Therefore, the subscales in process-oriented collective efficacy have the measurement contamination problem and fail to assess the multidimensional nature of GCE. Noteworthy, although the CEQS scale includes the measurements of task-related beliefs (i.e., ability) similar to our GCE-task, and relation-related beliefs (i.e., unity) similar to our GCE-relationships, it does not provide any item related to the emotions arising within the group (i.e., GEC-emotions).

An example of the initial attempts to include emotion management into collective efficacy measurement is a study done by Allen, Jones,
and Sheffield (2009) with multiple sport teams. Their collective efficacy questionnaire included the following items: “outplay the opposing team, recover from mistakes, attack effectively, keep possession, remain motivated throughout, defend effectively, maintain concentration, force mistakes from opponents, and manage emotions” (Allen et al., 2009, p. 208). Hence, only one of the nine GCE items (i.e., “manage emotions”) was used to assess emotion management. Despite their attempts to include emotions as a part of the GCE operationalization, the monodimensional GCE is mainly rooted in the domain of task abilities (i.e., GCE-task) in that most GCE items tap the task activities, thus overshadowing the single emotion-related item. Another attempt to include emotion management to GCE was made by Caprara et al. (2004) with a measure of GCE to assess family functioning as a whole (i.e., group). Although their scale is still monodimensional, it simultaneously captures the family members’ beliefs in their ability to (a) manage daily routine operations (i.e., GCE-task), (b) keep good relationships with the community at large (i.e., GCE-relationships), and (c) provide emotional support in difficult times and stressful situations (i.e., GCE-emotions).

Taken together, although these representative examples are endeavors designed to develop a measure of GCE that investigates separate dimensions referring to various domains of abilities, we argue that a comprehensive multidimensional GCE operationalization is largely needed. In this study, we propose a three-dimension GCE model (i.e., GCE-tasks, GCE-relationships, and GCE-emotions), and develop a new scale to assess these three GCE factors. We focus on these three main domains of human abilities related to group functioning for several reasons. First, self-efficacy literature has already provided a differential conceptualization and measurement of an individual’s self-efficacy beliefs in one’s abilities to handle a task (Gist, 1987), manage one’s relationships with others (Di Giunta et al., 2010), and manage one’s emotions (Caprara et al., 2008). Given that group collective efficacy is rooted into self-efficacy beliefs of group’s members and “operates through similar processes” (Bandura, 2000; p. 76), we argue that collective efficacy beliefs of group members could be similarly developed with regard to the same domains of group abilities to handle group tasks, manage interpersonal relationships, and manage emotions. Second, as the foundation of the conceptualization of groups’ functioning (Dal Forno & Merlone, 2013), Bion (1952) suggests that every group has to deal with operations related to emotional states (i.e., emotions) that emerge while group members interact (i.e., interpersonal relationships) to accomplish their primary tasks (i.e., task). In line with this, empirical studies advocate tasks-, relationships-, and emotion-related abilities to be essential factors for any group functioning and effectiveness (Kozlowski & Ilgen, 2006; Spielberger, 2004), thus supporting the relevance to investigate group members’ efficacy beliefs in these three separate domains of abilities (i.e., GCE-tasks, GCE-relationships, and GCE-emotions). Third, as summarized in the aforementioned literature review, the current efforts in developing multidimensional GCE measures have already tapped competency domains related to task, relationships, and emotions separately. However, one may argue that a model examining a single domain of group collective efficacy and leaving out multiple simultaneously existing group collective efficacy domains is underspecified (Mackinnon, 1992), and therefore, has the omitted-variable bias (Clarke, 2005). As such, building on previous literature and relevant empirical work, we maintain that it is important to simultaneously include these three distinct dimensions in our GCE measure.

Specifically, based on the definition of task, (i.e., what groups have to do or achieve, the workflow structure and coordination; Kozlowski & Ilgen, 2006), we define GCE-tasks as the group members’ shared beliefs in task-relevant competencies. Similarly, we integrate the interpersonal bonds, frictions, and spontaneous cooperation dynamics among group members into the relational processes (Kozlowski & Ilgen, 2006), and define GCE-relationships as the group confidence in its interpersonal-related competencies. Finally, group emotion management (i.e., affective reactions to the group’s experiences [Kozlowski & Ilgen, 2006]) includes group processes devoted to sharing members’ feelings, talking about emotional reactions to shared situations, and discussing emotions that create problems among group members. We, therefore, label GCE-emotions as the group confidence in its competencies to
handle these emotion-related group processes. On the basis of these arguments, we propose:

**Hypothesis 1:** If GCE-task, GCE-relationships, and GCE-emotions are three different facets of group collective efficacy, then each item of the three different subscales will load on a different hypothesized latent factor.

**Group Collective Efficacy and Team Performance**

According to the social–cognitive theory (Bandura, 1997), the higher the group members’ confidence in its conjoint capability to execute actions required to produce specific attainments, the better the group results and the higher the group performance. This positive and well-established relationship between group collective efficacy beliefs and performance has been empirically demonstrated in organizational settings (e.g., Stajkovic, Lee, & Nyberg, 2009) and a wide range of sport specialties (e.g., Beauchamp & Eys, 2008).

Although no previous study has used separate subscales of GCE beliefs in the domains of interpersonal relationships and emotion management, both GCE-relationship and GCE-emotions fall into the general prediction that a strong sense of collective efficacy leads the group to strive for results and achieve better outcomes (Bandura, 1997; Kozlowski & Ilgen, 2006). Based on these arguments, we hypothesize the following:

**Hypothesis 2:** Three-factor group collective efficacy (i.e., GCE-task, GCE-relationships, GCE-emotions) will positively predict team performance.

**Fear of Dominance, Group Collective Efficacy, and Performance**

In addition to testing the differential impacts of GCE-task, GCE-relationships, and GCE-emotions on team performance, we further expand previous research by exploring one of the individual-level predictors of GCE: fear of dominance within the group. This construct proposed in present study draws upon the definition of dominance as a group member’s perception that one or more teammate(s) is/are acting rudely toward him/her, thus causing the target to experience the feeling of being intimidated and the fear to express him/herself (Michaelsen, Fink, & Knight, 1997). This concept of fear of dominance emphasizes one’s emotional and motivational reactions when dominant teammate(s) intimidate(s) the target to the point that the target believes that one’s contributions are not valued and therefore is unmotivated to express oneself (Michaelsen et al., 1997). Although teammate(s)’ attacks or rude behaviors are sources of this individual difference, the fear of dominance construct focuses on the emotional experiences (e.g., fear, discouragement) and motivational reactions (e.g., less efforts) associated with attacks from one’s teammates. As such, this fear of dominance is conceptually distinct from constructs pertaining to bullying or being targeted for aggression and mistreatment.

This emotional and motivational reaction to others’ dominance (i.e., fear of dominance) is considered a stable personality trait (Piezon & Ferree, 2008), yet it should be distinguished from the dominance/extraversion subdimension of the Big Five model of personality traits (John & Srivastava, 1999; McCrae & Costa, 1987). In fact, the Big Five dominance is understood as an individual disposition to be assertive, leading, and pushy toward others, whereas our fear of dominance is the individual’s feeling of being intimidated as a result of dominant behaviors displayed by one or more team members. Additionally, the intimidation caused by other’s dominance should not be assimilated to Social Dominance Orientation (SDO; i.e., the group-based tendency to be superior over others in the group; Pratto, Sidanius, Stallworth, & Malle, 1994; Kravitz, 2004), which is related to the beliefs that support group-based hierarchy and inequality. Finally, because dominance might refer to assertive behaviors toward the opponent team in sport settings (Beauchamp & Eys, 2008; Moll, Jordet, & Pepping, 2010), or rather intergroup dominance, we emphasize that our fear of dominance concept is related to members within the same group. Therefore, it is an individual difference occurring within one’s group.

Although the effect of fear of dominance (i.e., a sense of intimidation due to teammates’ dominance) on group collective efficacy beliefs has not yet been empirically investigated, there are conceptual reasons to expect a negative link
between fear of dominance and GCE. Dominant group members may manipulate the target’s perception of one’s contributions and intimidate him/her into believing that one’s contributions to the group achievements are not necessary. When it occurs, the target not only feels unsafe and insecure in the group setting, but also s/he is unmotivated to contribute to the group (Piezon & Ferree, 2008). Therefore, we maintain that the feeling of intimidation caused by rude attacks from other teammates (Michaelsen et al., 1997) might result in increased inhibition in expressing personal contributions and decreased beliefs about the group (Palloff & Pratt, 2003). In other words, fear of dominance adversely affects group members’ beliefs about their teammates, and this includes the beliefs about the efficacy of the group as a whole (i.e., GCE). Specifically, members’ beliefs in group efficacy in achieving group tasks, managing interpersonal relationships, and addressing emotions that arise among group members may reduce.

Built on previous research in educational settings regarding the aversive effect of dominance among teammates on members’ beliefs in the group as a whole (Piezon & Ferree, 2008), we expect a negative link between fear of dominance and collective efficacy beliefs within sports teams because student groups sharing common goals and achieving high performance (i.e., high grades) are largely similar to athlete teams that share the common goal of achieving high ranking in their respective championships. Therefore, we hypothesize the following:

**Hypothesis 3:** Fear of dominance will negatively predict GCE-task, GCE-relationships, and GCE-emotions.

In addition, GCE-task, GCE-relationships, and GCE-emotions might link individual fear of dominance to team performance. Feeling intimidated by others’ dominance within the group might decrease GCE beliefs because team members are aware that the targets’ participation in and contribution to the group activity are limited as a result of aggressive and harassing teammates; consequently, these weakened beliefs in their group as a whole might result in poor group results. As such, we predict the following:

**Hypothesis 4:** GCE-task, GCE-relationships, and GCE-emotions mediate the negative relationship between within-group fear of dominance and team performance.

**Method**

**Participants**

Surveys were administered to 315 athletes (100% response rate) playing in 38 independent sport teams from 23 different sport specialties (e.g., basketball, canoe, cycling, fencing, gymnastics, hockey, ice skating, lacrosse, rugby, sailing, soccer, synchro swimming, table tennis, volleyball) in Italy. Informal conversations with these teams, our observation during the fieldwork, as well as support from previous literature (e.g., Beauchamp & Eys, 2008) suggest that all sport specialties in our sample required a fair amount of members’ interactions and interdependence. Moreover, the majority of the sport teams belonged to different sport specialties and played in different championships. The few teams fitting into the same specialty did not directly interact with each other. Therefore, all 38 teams in our sample were independent of each other. The mean team size was 13.93 (SD = 8.67) and ranged from 2 to 34. In the overall sample, 48.6% of respondents were male while 51.4% female. The average age was 24.32 years (SD = 6.70), and the average tenure in the team was 5.21 years (SD = 4.44). Nine of 38 teams were composed of disabled athletes, which represented 11.4% of the overall sample.

**Procedure**

The research team approached administrators within each league to request the team’s participation in the study. On reaching agreement on participation, the research team provided information sessions at each team location to describe the project, encourage participation, and address concerns from potential participants. Participation was voluntary and confidential. The research team distributed questionnaires at each location, and the majority of participants completed and returned the survey (in a sealed envelope) on the same day.

We first administered the self-report questionnaires to each team member during the first half of the season. Usually it was between the
second and the third month since the beginning of the season. In other words, before assessing their team’s efficacy, all team members have had at least two/three months to play and interact with each other, in addition to the prior months spent together on preliminary training. Despite the differential starting time of the various championships, we expect that all individual members of each team have had enough time to interact, and therefore are qualified to assess their team’s efficacy. We then collected public information on the overall team performance (i.e., the outcome variable): the team’s ranking at the end of the season, the same year as data collection.

**Measures**

Below is a description of the newly developed measures used to provide data for the current study.

**Group collective efficacy.** Consistent with Bandura’s (1997, 2006) recommendations for construct specificity, our measure of group collective efficacy assesses respondents’ beliefs that their working group was able to cope effectively (Bandura, 2000; Stajkovic, Lee & Nyberg, 2009; Whiteoak, Chalip & Hort, 2004) with (a) task requirements, (b) management of interpersonal relationships among team members, and (c) emotions that arise within the group and/or from particular group events.

Using Flanagan’s (1954) critical incident technique, we interviewed two focus groups including one from organizational teams and one from sports teams with different specialties, and identified group behaviors differentially grounded in the prototypical team-task, -relationship, and -emotions management. Specifically, content analysis of interviews revealed organizational behaviors referring to three main clusters of distinct group abilities to cope with task requirements, handle relationships effectively, and manage emotions that arise within the group. Next, items were generated and framed as statements involving members’ confidence in teams’ action (i.e., behavior) anchored to the three content-specific domains of abilities. Furthermore, because the teams in our sample all implied a fair degree of group interdependence, we followed Bandura’s (2000) recommendation to aggregate team members’ appraisals of their group’s capability when group outcomes encompass interdependency among members. Also, in line with Kozlowski and Ilgen’s (2006) suggestion that GCE items should be worded as statements of individuals responding to issues referring to the team, we phrased the GCE judgments as “I believe that my group . . .” (also see Fransen et al., 2014 for similar wording). It is noteworthy that our prompt (i.e., “I believe that my work group . . .”) is distinct from a general statement tapping the group broad effectiveness (i.e., group potency), which is usually assessed by more global items (e.g., “No task is too tough for this team;” Guzzo, Yost, Campbell, & Shea, 1993, p. 98). This overall procedure for developing collective efficacy items is also consistent with previous studies in the organizational settings (Petitta et al., 2011).

Additionally, in line with Bandura’s (2006, p. 311) recommendation to engender sufficient gradation of difficulties into the efficacy items to avoid ceiling effects, we included the modifier “always” into the prompt for all GCE items (i.e., “I believe that my group is always able to . . .”). As such, the prompt for all GCE items was “I believe that my work group is always able to . . .”

Our scale included 18-items measuring GCE in task (four items), relationships (six items), and emotions management (eight items). Sample items were: “achieve a shared goal” (GCE-task); “work effectively even when conflicts arise” (GCE-relationships); “create the conditions so that everyone can express their emotions” (GCE-emotions). The Appendix reports a list of the complete GCE scale used in the present study. Respondents were asked to rate the extent to which they were convinced that their group was able to face the presented situations by using a 7-point Likert scale ranging from 1 = not convinced at all to 7 = totally convinced.

**Fear of dominance.** Drawing on Piezon and Ferree’s (2008) Dominance Scale, we developed a four-item measure of fear of dominance to assess the individual’s emotional and motivational reactions to other members’ rude or aggressive personal attacks. A sample item was “Assertive/dominant group members discourage me from contributing to group goal attainment.” Respondents were asked to rate the extent to which they agreed with the statements.
presented by a 7-point Likert scale ranging from 1 = totally disagree to 7 = totally agree.

Team performance. Team performance refers to the team’s ranking achieved at the end of the championship of the year of data collection. Because the self-reported questionnaire was administered during the first half of the season, the team performance was a second-source objective measure obtained at a different time point, and subsequent to the survey collection. To realistically collect a publicly available performance index across all the different sport specialties with our limited research resources, we used the end of season team’s ranking as our outcome variable. As noted before, our study involved 23 sport specialties, and teams were involved in different championship contests depending on their specific sport specialty, thus leading to great heterogeneity of performance indicators. To compare the teams’ ranking among championship contests that included dissimilar numbers of the lowest ranking positions, the measure of the team performance was computed as the proportion of maximum scoring (POMS; Little, 2013). Specifically, the standardized team performance is the proportion between the rank position achieved by a team minus the lowest ranking position achievable in the specific championship (numerator), and the highest ranking position potentially achievable in the championship minus the lowest ranking position potentially achievable in the championship (denominator). For example, a team ranking the second of six potential positions in its championship was scored as follows: (2–6)/(1–6) = 0.8. Similarly, a team ranking the fifth of 15 potential positions in its championship was scored as follows: (5–15)/(1–15) = 0.7.

Control variables. We included past performance as a control variable because it was found to be a predictor of current performance in all sports (Waguespack, Salomon, & Bae, 2006). This past performance variable was standardized using the same procedure as the current team performance (i.e., POMS; Little, 2013). Furthermore, given the large variety in the size of our sports groups, we included team size as a control variable (Beauchamp & Eys, 2008). Finally, because our sample included teams of disabled athletes, we also controlled for the effects of disabled/able-bodied teams on group performance (Cremades & Tashman, 2014).

Analytical Approach

To address construct validity of the newly developed GCE scale, we first examined a three-factor confirmatory factor analysis (CFA) model in which each item referring to GCE-task, GCE-relationships, and GCE-emotions, respectively, loaded onto three unique latent factors. Next, in an attempt to demonstrate the conceptual distinctiveness of GCE from the construct of fear of dominance, we tested a four-factor CFA model in which each item that referred to fear of dominance, GCE-task, GCE-relationships, and GCE-emotions respectively loaded onto four unique latent factors. Similarly, we compared the four-factor model against a plausible alternative model. The Satorra-Bentler Scaled chi-square difference test was employed when comparing nested models (Satorra, 2000). Furthermore, given the multilevel or hierarchical structure of our data wherein individuals are nested within sports teams, we used the “TYPE=COMPLEX” procedure in Mplus (version 7.11; Muthén & Muthén, 2013). This Mplus command “includes a Taylor series-like function to provide a normal theory covariance matrix for analysis” (Stapleton, 2006, p. 352), and produces correct parameters estimates, standard errors, and test statistics in the presence of interdependency. Finally, because of the nested structure of our data, the models were tested using the Maximum Likelihood with Robust Standard Errors estimation method (MLR; Satorra, 2000).

The model for testing our hypotheses 2 through 4 was a two-level mediation model, as set out in Figure 1. Because athletes were nested within sports teams, observations at the participant level were not statistically independent and multilevel analysis was mandatory. Aggregating the individual-level variables to team-level mean scores was not adequate because the variances and covariances of the aggregated variables consisted of both within-group and between-groups variability. We, therefore, took the multilevel nature of our data into account when testing for mediation. In the recent methods literature, this type of model is referred to as a 1–2–2 multilevel mediation model (Preacher, Zyphur, & Zhang, 2010), where the team-level
group collective efficacy (Level 2) serves as a mediator in a linkage between individual fear of dominance (Level 1) and team performance (Level 2). We estimated the model using Mplus (version 7.11; Muthén & Muthén, 2013), and followed the one-stage procedure developed by Preacher and his colleagues (2010). In comparison with the more conventional multilevel modeling paradigm (Raudenbush & Bryk, 2002) that has been suggested to test multilevel moderated mediation (Bauer, Preacher, & Gil, 2006), this method does not require multiple stages of analysis, and offers results that are less biased (Preacher et al., 2010). Specifically, we specified fear of dominance as the Level 1 predictor, GCE-task, GCE-relationships, and GCE-emotions as three Level 2 mediators, and team performance as the Level 2 outcome with team size, disability, and previous performance as Level 2 control variables. Consistent with theory and research, we allowed GCE-task, GCE-relationships, and GCE-emotions to covary.

Results

Confirmatory Factor Analyses

A preliminary data screening for item normality and multivariate outliers was conducted. Results indicated that both individual level items and group level variables displayed overall values within the recommended skewness threshold (Finney & DiStefano, 2006; West, Finch, & Curran, 1995), and therefore met the normality criteria. Furthermore, the study of multivariate outliers at both the individual and aggregated group level (Mahalanobis Distance; Schinka, Velicer, & Weiner, 2003) resulted in the retentions of all subjects/teams. It is worth noting that we used the MLR estimation method in the following measurement and multilevel mediation models, which was demonstrated to be robust to the violation of normality assumption (Chou, Bentler, & Satorra, 1991).

Results from the first CFA of a three-factor model using 18 items from the GCE scale demonstrated a good fit to the data, $\chi^2(132) = 415.27$, $\chi^2/df = 3.15$, RMSEA = .08, CFI = .95, SRMR = .04, with standardized item loadings ranging from .71 to .90 ($p < .001$). The Satorra-Bentler Scaled chi-square difference tests indicated that the three-factor model was a better fit to the data than plausible alternative models (see Table 2 for alternative models Fit Indices) where the following factors were combined: (a) GCE-task and GCE-relationships, $\Delta\chi^2(2) = 20.53$, $p < .001$, (b) GCE-task and GCE-emotions, $\Delta\chi^2(2) = 70.41$, $p < .001$, (c) GCE-relationships and GCE-emotions, $\Delta\chi^2(2) = 340.76$, $p < .001$. The three-factor model was also a better fit to the data than a single factor model where all the indicators were combined into one, $\Delta\chi^2(3) = 142.62$, $p < .001$. Taken together, these results support that the GCE scale has three distinct facets, including GCE-task, GCE-relationships, and GCE-emotions, supporting Hypothesis 1.

Results from the four-factor CFA using 22 items respectively assessing fear of dominance,

**Figure 1.** Results from the hierarchical linear model on the study variables. Paths of continuous variables are standardized; dashed lines represent nonsignificant paths. * $p < .05$, ** $p < .01$, *** $p < .001$. 

<table>
<thead>
<tr>
<th>Variable</th>
<th>GCE Task</th>
<th>GCE Relationships</th>
<th>GCE Emotions</th>
<th>Team Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear of Dominance</td>
<td>-.56*</td>
<td>-.74***</td>
<td>-.74***</td>
<td></td>
</tr>
<tr>
<td>Disability</td>
<td>-.126**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past Performance</td>
<td>.75***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Size</td>
<td>.77***</td>
<td>-.74***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Performance</td>
<td>-.74***</td>
<td>-.53***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group-level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual-level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
GCE-task, GCE-relationships, and GCE-emotions, demonstrated a good fit to the data, \( \chi^2(203) = 576.34, \chi^2/df = 2.84, \text{RMSEA} = .076, \text{CFI} = 1.00, \text{SRMR} = .05 \), and indicators all significantly loaded on their respective latent factors. The four-factor model was also a better fit to the data than a two-factor model (see Table 2 for the alternative model fit indices) where fear of dominance and GCE (including task, relationships, and emotions) were treated as two distinct factors, \( \Delta \chi^2(2) = 14.74, p < .01 \). Taken together, these results indicate the overall conceptual distinctiveness of the key variables in the study.

**Descriptive Statistics and Correlations**

Table 1 provides the descriptive statistics and zero-order correlations among variables studied. The mean values for GCE-task, GCE-relationships, and GCE-emotions were 5.10 \((SD = 1.32)\), 5.06 \((SD = 1.31)\), and 5.00 \((SD = 1.36)\), respectively, indicating that the participated athletes were quite convinced that their team had a relatively high level of group collective efficacy, and the average distance that individual scores deviate from the mean is about 1.30; the mean value for fear of dominance was 2.50 \((SD = 1.42)\), indicating that individual athletes reported a relatively low level of fear of others’ rude attacks, and the average distance that individual scores deviate from 2.50 was 1.42. As shown in the diagonal of this table, each study variable has a good degree of internal consistency reliability, ranging from .84 to .95. Correlations among the study variables are generally consistent with our hypotheses. For example, the individual fear of dominance was negatively related to GCE-task, \( r = -.37, p < .01 \), GCE-relationships, \( r = -.48, p < .01 \), and GCE-emotions, \( r = -.45, p < .01 \). GCE-task, \( r = .17, p < .01 \), GCE-relationships, \( r = .17, p < .01 \), and GCE-emotions, \( r = .22, p < .01 \) were positively associated with the current team performance.

**Modeling the Relationships Among Fear of Dominance, Group Collective Efficacy, and Performance**

**Preliminary aggregating tests.** As indicated by Bliese (2000), statistical justifications are recommended before aggregating the individual scores to the team level (i.e., GCE in the present study). Hence, we first assessed the intraclass correlations (ICC \([1] \geq .12; \) James, 1982), the reliability of the means (ICC \([2] \geq .60; \) Bartko, 1976; Shrout & Fleiss, 1979), and within-group agreement \( r_{wg(j)} \geq .70; \) James, Demaree, & Wolf, 1984) to evaluate the appropriateness of aggregating individual GCE scores to the team level. The ICC (1) was .31, .37, and .32, the ICC (2) was .86, .89, and .87, and the median \( r_{wg(j)} \) was .91, .93, and .94, for GCE-task, GCE-relationships, and GCE-emotions, respectively. Additionally, the analysis of variance (ANOVA) on which the ICC(1) value was based indicated that the group effect was significant \((p < .01)\) for these three aspects of GCE, providing empirical justification for aggregating GCE-task, GCE-relationships, and GCE-emotions.

**Multilevel mediation model.** The results from the multilevel-mediation model assessing

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Team size</td>
<td>13.93</td>
<td>8.67</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2. Past performance</td>
<td>.65</td>
<td>.31</td>
<td>.06</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>.25</td>
<td>—</td>
<td>.04</td>
<td>.29</td>
</tr>
<tr>
<td>3. Disability</td>
<td>—</td>
<td>—</td>
<td>.37**</td>
<td>.21**</td>
<td>—</td>
<td>.14</td>
<td>—</td>
<td>.30</td>
<td>.34*</td>
<td>.29</td>
</tr>
<tr>
<td>4. Fear of dominance</td>
<td>2.50</td>
<td>1.42</td>
<td>.49*</td>
<td>.02</td>
<td>—</td>
<td>.06</td>
<td>(84)</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>5. GCE task</td>
<td>5.10</td>
<td>1.32</td>
<td>—</td>
<td>—</td>
<td>.51**</td>
<td>.04</td>
<td>.17**</td>
<td>.37**</td>
<td>.90</td>
<td>.85**</td>
</tr>
<tr>
<td>6. GCE relationships</td>
<td>5.06</td>
<td>1.31</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>.04</td>
<td>.20**</td>
<td>.48**</td>
<td>.85**</td>
<td>.92</td>
</tr>
<tr>
<td>7. GCE emotions</td>
<td>5.00</td>
<td>1.36</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>.04</td>
<td>.15**</td>
<td>.45**</td>
<td>.80**</td>
<td>.84**</td>
</tr>
<tr>
<td>8. Current performance</td>
<td>.67</td>
<td>.33</td>
<td>—</td>
<td>—</td>
<td>-.12*</td>
<td>.41**</td>
<td>-.26**</td>
<td>-.23**</td>
<td>.17**</td>
<td>.17**</td>
</tr>
</tbody>
</table>

*Note.* GCE = Group collective efficacy. Dummy code of disability: 1 = able-bodied, 2 = disabled. \( N = 315 \) participants nested in 38 sport teams. Reliability estimates (coefficient alpha) are on the diagonal. Correlations below the diagonal are based on individual level data, and correlations above the diagonal are based on the aggregated team level data. *\( p < .05 \). **\( p < .01 \).
the relationships among fear of dominance, GCE (task, relationships, emotions), and performance are presented in Figure 1 and Table 3, wherein Part A summarizes the standardized direct effects of fear of dominance on GCE (task, relationships, emotions), as well as the standardized direct effects of GCE (task, relationships, emotions) on team performance after controlling for team size, disability, and previous performance. In support of Hypothesis 3, we found that fear of dominance was negatively related to GCE-task (β = -.56, SE = .25, p < .05), GCE-relationships (β = -.74, SE = .18, p < .001), and GCE-emotions (β = -.74, SE = .19, p < .001). That is, a higher level of fear of dominant behaviors from teammates is associated with lower levels of GCE-task, GCE-relationships, and GCE-emotions beliefs. After
controlling for team size, disability, and previous performance, the variable of GCE-emotions was the only significant predictor of current team performance ($\gamma = .53, SE = .25, p < .05$). In other words, a higher level of GCE-emotions was associated with better team performance. Yet, there were no significant relationships between GCE-task and GCE-relationships and team performance. Therefore, Hypothesis 2 was partly supported.

Using the procedures outlined by Preacher et al. (2010), the lower part of Table 3 (Part B) reports the indirect effects of fear of dominance on current team performance through GCE. In classical statistics, two available methods to compute Confidence Intervals (CIs) for an indirect effect in a multilevel mediation model are the asymptotic normal theory and the distribution of product of the coefficients. Because we used MLR as the estimator and “TYPE=TWOLEVEL” in Mplus, the BOOTSTRAP (resampling) option is not available to test an indirect effect for a multilevel mediation model. Hence, the Mplus generated CIs for the indirect effects in our model were drawn upon the asymptotic normal theory. We found that fear of dominance had a significant indirect effect on team performance through GCE-emotions. This indirect effect was negative (Estimate = $- .27, p < .05$) and 95% of confidence interval around the indirect effect did not contain zero (Estimate = $- .49, - .05$). Conversely, fear of dominance did not have significant indirect effects on team performance through GCE-task and GCE-relationships. Thus, the mediation role of GCE-emotions linking fear of dominance and team performance was supported, whereas the mediation roles of GCE-task and GCE-relationships linking fear of dominance and team performance were not supported. As such, our results provided partial support for Hypothesis 4. Finally, the control variable disability was negatively associated with team performance, previous performance was positively associated with current team performance, whereas team size did not have a significant relationship with current team performance.

Overall, the model explained 55.5% of the current team performance. Specifically, fear of dominance explained 31.8% variance of GCE-task, 56.0% of GCE-relationships, and 54.1% of GCE-emotions. When taken in combination, after controlling for disability and previous performance, GCE-emotions had the largest impact on team performance ($\gamma = .53$).

**Discussion**

Despite the increasing interest in the role played by relational, and particularly, emotional processes (Allen et al., 2009; Jones, 2003) in the emergence of group collective efficacy beliefs (GCE; Bandura, 1997), empirical studies simultaneously measuring GCE rooted into interpersonal relationships and emotions management competencies are still scarce. Furthermore, collective efficacy literature calls for more research on both person- and group-level factors that explain why and how group members contribute to achieving successful team results (Beauchamp & Eys, 2008). The issue is also of practical interest, because collective efficacy measures are often used to assess and eventually enhance members’ confidence in their group, thus promoting increasingly higher team performance (Keshtan, Ramzaninezhad, Kordshooli, & Panahi, 2010; Manning, 2008). However, no study to date has attempted to examine (a) how GCE beliefs rooted in conceptually and empirically distinguished domains of group competencies differentially affect team success, (b) whether members’ trait differences in their susceptibility to teammate(s)’s dominance cause the target to doubt the efficacy of their group, or (c) the extent to which these weakened group beliefs might impact team success.

Therefore, the present research contributes to the extant literature by proposing a three-factor model and its measurement of GCE beliefs grounded in the following three distinct domains of abilities: group task management (GCE-task), management of the relationships among group members (GCE-relationships), and management of the emotions that arise within the group (GCE-emotions). We also suggested a multilevel mediation model wherein the three-factor GCE (i.e., GCE-task, GCE-relations, GCE-emotions) mediated the negative relationship between individual-level fear of dominance (i.e., being intimidated due to the actions of other group members who overwhelmingly dominate others) and objective team performance. With 38 sport teams across a wide range of sport specialties, we examined
our predictions using data collected at two different time points (i.e., the survey was collected during the first half of the season and the objective performance was observed at the end of the same season) and from multiple sources (i.e., self-report from the athletes and the objective measurement of the team ranking from public records).

Results from our study provide initial support to the validity of the newly developed three-factor GCE scale. This lays the foundation for disentangling three different domains of GCE and demonstrating how shared beliefs among members with regard to distinct group capabilities (i.e., task, interpersonal relationships, and emotions) shape teams’ outcomes. Specifically, we found that the feeling of being intimidated in the face of other team members’ overwhelming dominance weakened shared beliefs in the group capabilities (i.e., GCE-task, GCE-relations, GCE-emotions). In other words, fear of dominance was strongly and negatively related to group shared efficacy beliefs in managing interpersonal relationship among its members, coping with emotions that arise within the group, as well as achieving tasks. On the other hand, although higher GCE-emotions was associated with better team performance, we did not find significant relationships between GCE-task and GCE-relationship and team performance after controlling for previous performance, team size, and disability. This result demonstrated the explanatory power of GCE-emotions, compared with GCE-tasks and GCE-relationships when taking into account those aforementioned control variables. In addition, we found that the variable of GCE-emotions plays a mediating role in the negative relationship between fear of dominance and team results. In other words, group members who feel scared because of fellow members’ dominance might hinder the progress toward group achievement because of weakened confidence in the emotion-related efficacy of their group and increased doubt about their group ability to manage emotional exchanges among members.

Theoretical Implications

The theoretical relevance of the current study is at least fourfold. First, despite the massive research on collective efficacy, no study to date has simultaneously investigated GCE beliefs grounded in the specific domains of the team competencies in managing emotions that emerge within the group as well as handling interpersonal processes. Similarly, despite the endeavors aimed to develop a measure of GCE that investigates separate dimensions of group capabilities, a comprehensive multidimensional GCE operationalization simultaneously assessing task-, interpersonal relationships-, and emotions-related beliefs is still needed. Hence, our study contributes to the extant literature by conceptually and empirically distinguishing three domains of GCE beliefs shared among group members (i.e., GCE-tasks, GCE-relationships, GCE-emotions). That is, our measurement of the proposed three dimensions of GCE demonstrated its preliminary validity.

Using the proposed three-dimension GCE model, a second novel contribution is the assessment of the differential effects of three factors on team results. In particular, our study examined how members’ beliefs in their group task-, relationships-, and emotions-related skills differentially contribute to the objective team achievement. Noteworthy, disentangling the GCE-relationships and GCE-emotions from the most studied GCE-task uncovered the important role of members’ beliefs in their group ability to manage emotion-eliciting situations in fostering better team results. Although the impacts of team emotional processes on its performance have been well documented (Barsade & Gibson, 2007; Barsade, Ramarajan, & Westen, 2009; Beauchamp & Eys, 2008), we contribute to the literature by demonstrating the effect of the members’ shared beliefs rooted in effectively coping with within-group emotions.

Moreover, we extend previous research by including fear of dominance (Piezon & Ferree, 2008), defined as the members’ feeling of being intimidated due to rude/aggressive attacks from teammate(s), as an individual-level predictor of group-level efficacy beliefs. Thus, we revealed how the fear associated with fellow group members’ aggressiveness impairs the development of three GCE beliefs (i.e., task-, relationships-, and emotions-related GCE). In other words, the fear of others’ dominance was found to weaken members’ confidence in the group relationships- and emotions-related competencies, as well as group ability to manage the tasks.

Finally, by employing a multilevel mediation approach based on the self-regulatory and agen-
tic framework (Bandura, 1997), an additional contribution of the current research is the demonstration of the GCE’s mediating role in the negative relationship between fear of dominance and team results. As noted by Kozlowski and Ilgen (2006), collective efficacy is an emergent group-level property, and relies on group members’ shared beliefs (Bandura, 1997). Consistent with these propositions, our findings brought to the forefront how individual-level negative feelings and emotional dynamics (i.e., fear of dominance) decrease members’ confidence in their group capability to handle the emotions experienced among the teammates (i.e., emotions-related GCE), which in turn hinders the achievement of group results and leads to poor team performance. Overall, the hierarchical structure of the emotion-related constructs included in our nomological network at the individual- (i.e., fear of dominance) and group-level (i.e., GCE-emotions) provides a more nuanced understanding of how the individual members’ characteristic and the team’s characteristic jointly contribute to group performance. Our study distinguished itself from the predominant empirical inquiries focused on task-related GCE (Beauchamp & Eys, 2008; Stajkovic, Lee, & Nyberg, 2009) by simultaneously examining task-, relationships-, and emotions-related GCE.

Practical Implications

From a practical standpoint, our findings have important implications for group members and leaders who commit to effective teamwork (Kozlowski et al., 2009). As noted by Mokhtari, Mashhoodi and Rahmati (2013; p. 316): “Perfect and efficient management is required in any successful teamwork,” and sports groups require guidelines to reach common goals and success like other groups and organizations. Some research and practice frameworks could be used to show the relevance of our finding for practice. For example, Kozlowski and Bell (2004) suggest that a solid scientific foundation is needed when building and managing effective teams through designing, training, and leading practices. Moreover, Hackman’s model of team effectiveness (Hackman, 1987) proposes that there must be (a) a supportive organizational context that provides necessary skills via training, (b) an appropriate group structure with a team composition of the correct mix of individuals’ characteristics, and (c) leadership and coaching that provide needed guidance and resources. In addition, building on a specific collective efficacy framework to prompt positive gain spirals conducive to team success, Ronglan’s (2007) model of group training designed to improve sport team confidence relies on three steps. Specifically, he proposes to (a) produce team efficacy before the contests, (b) demonstrate efficacy beliefs during the match, and (c) evaluate processes at the end of the play. Specifically, production processes focus on preparing the team unity and abilities; activation refers to enthusiasm, persistence, and team morale shown by the members while playing; and evaluation after the game seeks to interpret the team outcomes, performances, and history of successes and failures, also in light of the members’ attribution of achievements to internal versus external factors.

Results from our multilevel and multisource study grounded in the self-regulatory and agentic framework (Bandura, 1997) might assist organizations in designing interventions within the aforementioned team development processes. For example, our findings may inspire the development of training techniques contributing to the growth of group collective efficacy, thus enhancing team performance. Although the positive gain spiral has already been used to increase group confidence in the task achievement and improve team performance (Beauchamp & Eys, 2008), our findings encourage the development of training programs and sessions dedicated to sharing, talking about, and creating team-based interpretations of emotions-eliciting situations (including fear of dominance within groups), and collectively developing group coping strategies. These practices might foster the team confidence in the group emotion management and create new energy to prepare for future emotion-related experiences. Finally, evidences form science and practice suggest that managers and group leaders who coach their groups to focus on the sources of efficacy information and follow the recommendations for enhancing collective efficacy can prompt team self-confidence and subsequent successful results (Beauchamp & Eys, 2008; Keshtan et al., 2010; Kozlowski et al., 2009; Mokhtari et al., 2013). Our study supports the team-building intervention targeting members’ abilities to
handle fear of dominance to improve team effectiveness. In particular, efforts should be devoted to preventing the contagious, negative feelings associated with the dominance situation from spreading among group members, which may impede the members’ confidence in their group ability in the emotion management, and eventually threaten the group task achievement.

Strengths, Limitations, Future Directions, and Conclusions

Although this study makes aforementioned contributions to the literature, it also suffers from several limitations that should be addressed in the future research efforts. First, as any pilot study introducing new scales, our line of research requires additional investigation to replicate the validity of the three-factor GCE scale. Although we demonstrated the initial construct and criterion validity of the GCE scale, future data to demonstrate convergent and discriminant validity would be beneficial. For example, future studies could examine the relationship between the proposed GCE measure and already established collective efficacy measures to assess convergent validity of the GCE scale. As aforementioned, our theoretical review indicates that the existing GCE measures focus on the task dimension. Given our new scale also measures members’ shared beliefs with regard to the management of relationships and emotions among group members, we predict that the extant GCE measures might demonstrate a higher correlation with our GCE-task subdimension, compared to the dimensions of GCE-relationships and GCE-emotions.

Second, although the current set of data was drawn from sports teams in a wide variety of specialties, it was nonetheless a convenience sample. Hence, self-selection biases may be associated with our findings. Therefore, future research should generalize our results by employing a larger sample from diverse contexts.

Third, an arguable limitation of the data available for the present research is the power of our analyses. Although no research to date has investigated appropriate sample size in the multilevel mediation models, a largely agreed-on rule of thumb is that the number of level-2 units is particularly important (Preacher et al., 2010). As such, future studies might employ more clusters with balanced cluster sizes to explore multilevel mediation models. However, it is also important to note that when the number of groups (i.e., level-2 units) is fewer than 50 (38 in our case), the standard errors for the fixed parameters are slightly biased downward (Hox, 2010). Similarly, simulations by van der Leeden and Busing (1994) and van der Leeden et al. (2008) suggest that even when assumptions of normality and large samples are not met, the standard errors have a small downward bias. Finally, MLR estimates of fixed parameters and their standard errors, which are used in our analyses, are more accurate than GLS estimates. Taken together, these provide support for the significant and interesting results that we found despite a relatively small number of clusters.

Despite the strength of the objective measurement of the team ranking at the end of the season, other methods to assess a team’s overall performance are available. For example, win–loss percentage, athletes’ and/or coaches’ perceptions of team success relative to established season goals, game outcome, scoring percentage, and a productivity index including multiple behaviorally anchored subindices of team actions, which are tailor-made for each sport specialty (Arraya & Pellissier, 2013; Beauchamp & Eys, 2008; Johnston, Smith-Jentsch, & Cannon-Bowers, 1997).

Last, although our study relied on data collected at different time points (i.e., the survey was collected during the first half of the season and the performance was observed at the end of that same season) and from multiple sources (i.e., self-reports and objective measurement of the team ranking), the perceptual variables of fear of dominance and three GCE domains were still assessed by self-reported survey data. Because of the nature of the one-time survey data collection, we cannot draw a definitive causal conclusion regarding the fear of dominance-GCE link. However, given individual fear of dominance is a personality trait, it seems to be impossible to develop this trait after building one’s group. Nevertheless, longitudinal data are beneficial to replicate our findings. Moreover, longitudinal data would allow researchers to assess the effectiveness of interventions aimed at enhancing GCE beliefs, the time spans required to display changes in shared beliefs among group members, and the extent to which these changes strengthen members’ consensus.
in group confidence and team improvements. Also, qualitative studies might be useful to provide richer data that show how fear of dominance might impact team members’ collective efficacy and thus impede performance. Future research could examine how the leader (e.g., coach) and peer-leaders (e.g., team captains) affect the development of efficacy within a team. In addition, future research could also explore the conditions (e.g., team size, sport specialty, level of interdependence, members’ role) under which a single team member high in fear of dominance might be sufficient to decrease group collective efficacy.

Despite these limitations, the current research is the first one to empirically demonstrate (a) the distinctiveness of three different domains (i.e., group task competencies, within-group relationship management competencies, and within-group emotion management competencies) of GCE beliefs shared among group members, (b) the extent to which they are impaired by fear of dominance within the group, and (c) their differential effects on team results. Therefore, our research sheds light on how members’ shared confidence in group emotion management competencies mediate the relationship between threatening dynamics occurring within the group caused by others’ dominance and poor teams performance. This finding may assist organizations in building team environments wherein members’ efforts are exerted in sharing, discussing, and coping with the affective aspects in a team setting.

**References**


Appendix

**Group Collective Efficacy Scale Items**

<table>
<thead>
<tr>
<th>Italian version</th>
<th>English version</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sono convinto/a che il mio gruppo sia sempre capace di:</strong></td>
<td><strong>I believe my work group is always able to:</strong></td>
</tr>
<tr>
<td>1. (T) lavorare integrando gli approcci proposti dai diversi membri</td>
<td>1. (T) integrate work approaches proposed by different members</td>
</tr>
<tr>
<td>2. (T) raggiungere un obiettivo condiviso</td>
<td>2. (T) achieve a shared goal</td>
</tr>
<tr>
<td>3. (T) creare le condizioni perché ognuno possa esprimere apertamente eventuali difficoltà di lavoro</td>
<td>3. (T) create conditions so that everyone can openly express any work-related difficulty</td>
</tr>
<tr>
<td>4. (T) coordinarsi al massimo per superare tutti gli ostacoli</td>
<td>4. (T) coordinate itself in the best way in order to overcome all obstacles</td>
</tr>
<tr>
<td>5. (R) lavorare efficacemente anche quando sorgono dei conflitti</td>
<td>5. (R) work effectively even when conflicts arise</td>
</tr>
<tr>
<td>6. (R) scambiare (chiedere, ricevere), al suo interno, tutte le informazioni rilevanti per raggiungere un obiettivo/risultato comune</td>
<td>6. (R) exchange (request, receive) all relevant information among group members in order to achieve a common goal/outcome</td>
</tr>
<tr>
<td>7. (R) lavorare efficacemente anche quando il clima è fortemente competitivo</td>
<td>7. (R) work effectively even when the climate is highly competitive</td>
</tr>
<tr>
<td>8. (R) sfruttare al meglio le competenze, le capacità e le predisposizioni che sono in possesso di coloro che ne fanno parte</td>
<td>8. (R) take the most of group members’ competencies, skills and dispositions</td>
</tr>
<tr>
<td>9. (R) facilitare l’espressione del punto di vista di chi è in minoranza</td>
<td>9. (R) facilitate the expression of minority point of views</td>
</tr>
<tr>
<td>10. (R) agire con spirito di cooperazione anche in condizioni difficili</td>
<td>10. (R) cooperatively act even under difficult conditions</td>
</tr>
<tr>
<td>11. (E) creare le condizioni perché ognuno possa esprimere le proprie emozioni</td>
<td>11. (E) create the conditions so that everyone can express their emotions</td>
</tr>
<tr>
<td>12. (E) parlare esplicitamente delle emozioni negative sperimentate</td>
<td>12. (E) explicitly talk about the negative emotions experienced</td>
</tr>
<tr>
<td>13. (E) esplicitare le emozioni che creano dei problemi tra i membri</td>
<td>13. (E) make explicit the emotions that create problems among group members</td>
</tr>
<tr>
<td>14. (E) attivare un supporto reciproco in qualunque circostanza</td>
<td>14. (E) create reciprocal support under any circumstances</td>
</tr>
<tr>
<td>15. (E) dialogare sulle emozioni suscitate da eventi particolari</td>
<td>15. (E) talk about the emotions arising from particular events</td>
</tr>
<tr>
<td>16. (E) agire contando sull’interessamento genuino gli uni per gli altri</td>
<td>16. (E) take action counting on members’ genuine interest in each other</td>
</tr>
<tr>
<td>17. (E) attivare un confronto sui modi diversi di reagire emotivamente alle situazioni lavorative condivise</td>
<td>17. (E) activate an exchange on members’ different emotional reactions to shared work situations</td>
</tr>
<tr>
<td>18. (E) condividere le emozioni positive</td>
<td>18. (E) share positive emotions</td>
</tr>
</tbody>
</table>

*Note.* T = GCE-task; R = GCE-relationships; E = GCE-emotions.