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APPLIED RESEARCH

Cohesion and Performance for Female and Male Sport Teams

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A previous meta-analysis examining the relationship between cohesion and performance (Carron, Colman, Wheeler, & Stevens, 2002) revealed that this relationship was significantly stronger for female teams as compared with male teams. The purpose of the current study was to explore perceptions of the cohesion-performance relationship by coaches who have led teams of both genders. Semistructured interviews were employed with Canadian and German coaches with previous experience leading both male and female sport teams. The information obtained through the interviews yielded a number of categories pertaining to potential similarities and differences within female and male sport teams including: (a) the nature of cohesion (e.g., direction of the cohesion-performance relationship), (b) antecedents of cohesion (e.g., approaches to conflict), and (c) the management of cohesion (e.g., developing social cohesion). Overall, the results offer testable propositions regarding gender differences and group involvement in a sport context as well as informing best practices such that teams can attain optimal performance.

Keywords: gender, qualitative, athletics, group dynamics

Cohesion represents "a dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs" (Carron, Brawley, & Widmeyer, 1998, p. 213). In essence, this definition considers the overall unity and individual group members' attractions to both task (i.e., performance related) and social (i.e., relation oriented) aspects of the group. Research conducted by Carron, Widmeyer, and Brawley (1985) led to the development of a conceptualization and assessment tool (i.e., the Group Environment Questionnaire) of cohesion. They proposed four dimensions including: (1) Individual Attractions to the Group-Social (ATG-S), (2) Individual Attractions to the Group-Task (ATG-T), (3) Group Integration-Social (GI-S), and (4) Group Integration-Task (GI-T). Overall, the body of literature pertaining to cohesion[1] led these same researchers to suggest that this concept "is the most important group variable in sport teams" (Carron, Brawley, & Widmeyer, 2002, p. vii).

This claim is supported by evidence over the past 25 years (for recent summaries see Carron & Eys, 2012; Spink, 2011). For example, Spink, Wilson, and Odnokon (2010) found that those athletes who returned to their team had greater perceptions of cohesion the previous season than those who did not return. Furthermore, increased cohesion has been linked with less debilitative perceptions of anxiety symptoms (Eys, Hardy, Carron, & Beauchamp, 2003) and a greater sense of collective efficacy (Heuzé, Sarrazin, Masiero, Raimbault, & Thomas, 2006).

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Arguably one of the most important variables linked with cohesion is group performance. Interest in the cohesion-performance relationship is reflected in the number of studies that have been undertaken in addition to the meta-analyses conducted to summarize the findings. For example, Mullen and Copper (1994) conducted a meta-analysis on 49 studies from a variety of disciplines (including sport) and noted a small positive relationship between cohesion and performance. Furthermore, they noted that studies conducted within a sport environment demonstrated a stronger relationship between the two variables compared with other contexts (e.g., military, organizational).

Of more relevance to the current study is a meta-analysis conducted by Carron, Colman, Wheeler, and Stevens (2002) that examined the cohesion-performance relationship. In contrast to the Mullen and Copper (1994) investigation, Carron, Colman, et al.'s (2002) study focused strictly on the athletic context and used the full complement of sport studies (e.g., both published and non-published works) examining the cohesion-performance link. Their search resulted in a pool of sport studies five times greater than what was available to Mullen and Copper. Overall, their results indicated a moderate to large relationship between cohesion and performance ($ES = .655$). In addition to examining the general relationship between the two variables, Carron, Colman, et al. also considered potential moderators. For example, they found that effect sizes did not significantly differ due to the (a) type of cohesion considered (i.e., task vs. social cohesion), (b) type of teamwork required (e.g., interactive vs. coactive sports), or (c) competitive level (e.g., intramural vs. high school vs. intercollegiate vs. professional). Furthermore, there was no difference in terms of the direction of the relationship (i.e., cohesion leading to performance vs. performance leading to cohesion).

Nonetheless, gender was one moderator variable investigated by Carron, Colman, and colleagues (2002) for which effect sizes differed. Specifically, the positive cohesion-performance relationship for females was noted to be large ($ES = .949$) whereas this association was significantly lower for males ($ES = .556$; difference in ES $p < .05$). In their discussion of this result, Carron, Colman, et al. noted that although this relationship appears stronger for females, the absolute amount of cohesion perceived by males and females does not differ (evident through published normative data; Carron, Brawley, & Widmeyer, 2002). Yet, from a practical perspective, it was suggested that "events that contribute to a loss of cohesiveness might be expected to be more detrimental to team success in female teams" (p. 183). However, they cautioned that their meta-analysis offers descriptive insight but does not offer in-depth explanations into potential mechanisms of this relationship. As such, the general purpose of the current study was to explore perceptions of the cohesion-performance relationship as held by coaches who have led teams of both genders.

Before undertaking this exploration, it is worthwhile to point out some concerns researchers have expressed about further promoting gender differences within sport. For example, LaVoi, Becker, and Maxwell (2007) conducted a content analysis of coaching books and stated that "polarizing statements of gender difference are not constructive, and do not result in effective coaching" (p. 15). Furthermore, Etnier (2011) suggested that opinion, experience, and stereotypes constitute the weak evidence used to support gender differences for psychological factors in sport. Underlying these concerns is the valid assessment that empirical evidence is limited with respect to psychological differences between males and females. In the current study, however, the question of the cohesion-performance relationship and its connection to gender is supported by empirical data examined through the Carron, Colman, et al. (2002) meta-analysis.

Another concern is that the examination of gender differences has the potential to 'problematize' females' involvement in sport, or imply that male involvement in sport is normative whereas female involvement is not. LaVoi et al. (2007) provided a convincing case for the way this problematization is demonstrated in the coaching literature. Within the current study, however, we actively strived to avoid the issue of problematization by focusing methods and analyses on both males and females equally, and by taking the perspective that there is neither an appropriate nor inappropriate strength of relationship between cohesion and performance.

Interestingly, some of the concerns raised by LaVoi et al. (2007) and Etnier (2011) inform possible explanations for why males and females differ with respect to the link between cohesion and performance; namely, that stereotypes and social expectations result in a self-fulfilling prophecy that effects ongoing interactions (e.g., coach to athlete, athlete to athlete, parents to athlete) and the outcomes of those interactions within the sport environment. Eagly (1987) offers a succinct description of this process as it is interpreted within social-role theory: "Women and men are subjected to somewhat different expectations, to which they conform to some degree, and they develop somewhat different skills as well as attitudes and beliefs. As a result, women tend to carry out social interaction somewhat differently than men do" (p. 31). As it pertains to the current relationship under examination, coaches' beliefs regarding team cohesion and performance across the genders may result in the development of different expectations for athlete behavior, alternate approaches to practice and social structures, and consequently instill a sense of the importance (or lack of importance) of group cohesion over time. In the case of groups wherein cohesion is viewed with the utmost importance, the degree to which it is actually present (or absent) could have an impact on performance.

An alternative proposition pertaining to why the cohesion-performance relationship differs between males and females is provided by Cross and Madson (1997) and their comprehensive review of gender differences and individuals' self-construal (i.e., how one defines oneself and in relation to others). As Cross and Madson summarized, the self is influential in terms of individual

thoughts, feelings, and behaviors, and can be categorized into two dominant construals: (a) an independent construal (i.e., a focus on maintaining autonomy) and (b) an interdependent construal (i.e., a focus on relationships with others; Markus & Kitayama, 1994). In general, an interdependent construal is more likely to be present for women, resulting in greater motivation to create and maintain close relationships with others (Cross & Madson; see Cross, Hardin, and Gercek-Swing, 2011, for a more recent review and discussion regarding the further distinction between relational and collective interdependent self-construal). This supposition is congruent with a previous suggestion by Deaux (1976) that belongingness needs are stronger for females.

Within a highly cohesive environment, such an interdependent construal might afford an advantage for the following three reasons. First, as noted above, the self is influential with respect to motivation and behavior. A congruency between the environment (i.e., highly cohesive) and self-construal (i.e., interdependent) may yield greater motivation and effort. In fact, as it relates to the current study, Bruner and Spink (2011) examined the effect of team building (expressly targeting cohesion) on exercise behaviors and found that their intervention increased the self-reported effort of female participants (but not males). As another behavioral example, a recent study by Warner and Dixon (2013) concluded that retention of group members may be an advantage of a positive group environment; specifically, "competitive environments that focus on…internal cooperation have great value for retaining participants, especially women" (p. 16). Having the ability to retain motivated group members who are exerting maximal effort should have clear ramifications for group performance. Second, Cross and Madson (1997) suggested that an individual with an interdependent self-construal may be more likely to gear their behavior toward their groups' goals rather than their own goals. In a cohesive environment in which group goals are well-defined and consensual, this could be beneficial with respect to team performance. As a final example, these same authors cited evidence suggesting that males and females approach and enact role responsibilities differentially because of their differing self-construals (e.g., Moskowitz, Suh, & Desaulniers, 1994). Given the interplay between role perceptions and cohesion (e.g., role ambiguity; Eys & Carron, 2001), this might also be a factor in the link between cohesion and performance.

In response to the evidence and interpretation provided by Cross and Madson (1997), Baumeister and Sommer (1997) suggested that the overriding goal for males and females is essentially the same: both wish to satisfy the need to belong (Baumeister & Leary, 1995). However, in contrast to tendencies toward independent and interdependent self-construals, Baumeister and Sommer argued that it is the strategies in pursuing belongingness that may differ between males and females. Males may be more inclined toward developing connections via nonintimate social means (e.g., gaining status, power) whereas females may tend toward more intimate relationships (e.g., friendships with team members). In addition to potential strategy differences in the pursuit of satisfying the need to belong, Benenson et al. (2013) also reported that males exhibit less attention and arousal to threats of social exclusion. Once again, if this were to be the case, a cohesive environment would seem to be more crucial within a female sport context.

In summary, evidence demonstrates that the cohesion-performance relationship differs significantly in strength between males and females (Carron, Colman, et al., 2002). In addition, although it has not yet been investigated purposefully, literature from a number of areas affords several tentative explanations as to why this difference was found (e.g., Baumeister & Sommer, 1997; Cross & Madson, 1997; LaVoi et al., 2007). A specific examination of this issue may yield a greater understanding of the underlying mechanisms of Carron, Colman, et al.'s (2002) finding and lead to better prescriptions with respect to the development of an effective group environment in sport. To this end, an inductive qualitative approach, using semistructured interviews, was employed with Canadian and German coaches with previous experience leading both male and female sport teams. Coaches' (vs. athletes) perceptions were sought out because they would have the ability to contrast and compare group environments of male and female sport teams. Conversely, it is likely that athletes' experiences would, for the most part, be restricted to one context (i.e., male or female sport environments).

Method

Participants

As noted in the introduction, two separate sets of participants took part in the semistructured interviews. The country of origin of the sets of participants reflected the home countries of the research collaborators rather than a purposeful objective of examining cultural differences. However, we briefly address this issue in the discussion. A criterion sampling approach was applied (Patton, 2002) whereby the primary inclusion criterion was that participants needed to have extensive experience coaching both males and females. Our expectation was that this would take advantage of the coaches' ability to contrast and compare women's and men's teams as well as how to develop the required level of cohesion. For the Canadian sample, 11 coaches (4 females, 7 males) participated in the study. These coaches ranged in age from 26 to 68 years and coached their respective sports for 27.55 ± 11.24 years on average. At the time of data collection, participants were coaches of adult/young adult teams (predominantly intercollegiate teams; 10 of 11 coaches) but all had coaching experiences (or were continuing to coach in addition to their intercollegiate/club responsibilities) with younger age groups (i.e., children/youth). The representative sports ranged in terms of the degree of task and outcome interdependence (Evans, Eys, & Bruner, 2012) and included volleyball, ice-hockey,

rowing, cross-country running, wrestling, fencing, and track and field. Furthermore, all coaches had a range of experiences with respect to competitive levels, varying from lower amateur (developmental) through to international (expert) competitions.

The German sample was comprised of 11 coaches (3 females, 8 males) who ranged in age from 24 to 55 years and coached their respective sports for 16.00 ± 8.00 years on average. Similar to the Canadian sample, participants were coaches of adult/young adult teams at the time of data collection but all had coaching experiences with younger age groups (i.e., children/youth). The representative sports ranged in a similar manner to the Canadian sample and included volleyball, soccer, field hockey, handball, basketball, tennis, swimming, and track and field. Furthermore, the competitive levels represented by the coaches included recreational, competitive club, national, international, and professional teams.

Data Collection

Semistructured interviews. A semistructured interview guide was developed to include nonleading, open-ended questions that proceeded from (a) general introductory questions (e.g., participant's prior sport experience) designed to engage the participant within the interview process, to (b) transition questions that probed participants' coaching specific experiences as well as general perceptions of the construct of cohesion (i.e., what constitutes cohesion, what leads them to believe they have or do not have a cohesive team, what goes on in a cohesive team), and finally to (c) the key questions that tackled the issue under investigation. These key questions asked participants to comment on: (1) differences in cohesion within male and female teams, (2) their level of agreement with the cohesion-performance relationship findings by Carron, Colman, and colleagues (2002), (3) the reasons why these differences exist between genders, (4) how cohesion develops in male and female sport teams, and (5) the relative influence of coaches to facilitate cohesion in both settings. The guide was initially developed in English and subsequently translated into German. A copy of both versions of the interview guide can be obtained by contacting the lead author.

In addition to the open-ended questions, interviewers were prepared to employ a series of probes (i.e., "questions used to provide an in-depth follow-up to the interviewee's responses"; Patton, 2002, p. 372) during their interactions with the participants. These included detail (designed to create a more complete description of an experience), clarification (designed to obtain further information in response to ambiguous comments), and elaboration probes (designed to encourage the participant to continue discussing a particular point).

Procedures. The general procedures for data collection were similar for Canadian and German participants. First, following approval by the requisite research ethics boards, coaches were initially identified via local university and club websites and/or existing connections with researchers through previous studies or sport-related associations. They were subsequently contacted by phone, e-mail, or in-person to determine if they were interested in participating in the study. If coaches expressed interest, they were given letters of information and consent, and a time to conduct the interview was determined. All interviews for both samples were conducted in person. In the case of the Canadian sample, interviews were conducted by the fifth author and transcripts were transcribed and initially analyzed separately by the third and fourth authors. The average length of the interviews for this sample was approximately 34 min. In the case of the German sample, interviews were conducted by the seventh author and analyzed separately by that person and the second author. The average length of the interviews for this sample was approximately 27 min. Amalgamation and cross-comparison of the responses of the two samples were conducted by the third (Canadian researcher) and fourth (German researcher) authors.

It should be noted that individuals responsible for interviewing and analyzing the data participated in a preemptive strategy of reflexive bracketing (Crotty, 1996). The researchers responded as interviewees by taking part in an exchange using the current study's interview guide employed by another colleague who played the role of interviewer. The tactic was employed to attempt to identify the analysts' personal suppositions pertaining to the issue of cohesion and gender before undertaking analysis of the interview content. Although the goal of this process is not necessarily to bracket out the external suppositions held by the researchers, it provided awareness and an opportunity to reflect on previous experiences and cognitions with respect to the gendered nature of the cohesion-performance relationship. In addition to this bracketing strategy, both interviewers had basic qualitative training through Psychology or Kinesiology courses as well as interviewer experience in previous studies employing this methodological approach.

Data Analysis. The interviews conducted with the Canadian sample yielded approximately 77 transcript pages and 69 pages of transcript were created from the German interviews. It should be noted that the creation of meaning units and the subsequent initial coding/categorization of these meaning units were processes that were conducted separately for the German and Canadian samples. However, the procedures were conducted in a similar fashion. For both samples, the transcripts were broken down into individual meaning units (i.e., "a segment of text that is comprehensible by itself and contains one idea, episode, or piece of information"; Tesch, 1990, p. 116) and resulted in 233 relevant units considered for analysis. Meaning units were initially created from the transcripts by one researcher and subsequently verified by a second researcher. Any problematic meaning units that were identified by the second analyst (e.g., identification of a section of text containing more than one idea, episode, or piece of information) were flagged and discussed by the researchers. No substantive issues

regarding the creation of meaning units were experienced given the relatively straightforward nature of this portion of the data analysis, and the researchers for both sets of participants were able to come to consensus.

An inductive approach to data analysis was undertaken and generally followed guidelines (Côté, Salmela, Baria, & Russell, 1993) developed through a summary of work by Scanlan, Stein, and Ravizza (1989, 1991) as well as Tesch (1990). For both sets of participants, two researchers (see procedures) worked independently to group the meaning units into distinct themes and subthemes. Upon completion, the researchers compared their themes and the encapsulated meaning units. At the conclusion of this comparison, any disparate assignments of meaning units/themes were discussed until agreement was reached. Up to this point in the procedures, the researchers separately analyzing the responses of German and Canadian coaches had not yet discussed the emerging themes/subthemes, and no discussions with respect to expectations of the themes were held[2]. Once both sets of responses were initially coded, German themes, subthemes, and an example quote were translated to English to allow for an easier integration of the datasets. Translation of this information was conducted by the German researchers (2nd and 7th authors) who are proficient in both languages. As noted previously, integration of the two datasets was conducted by the third and fourth authors by seeking and combining commonly identified themes/subthemes. The overall categorization was then reexamined by all researchers involved in the analyses, as well as the first author, to ensure that the intended connotations of the themes/subthemes were retained and externally heterogenous (i.e., did not overlap with other themes/subthemes).

To facilitate the communication of results, all themes are presented together and representative quotations are derived from both samples (C = Canadian participant; G = German participant). Tables 1 and 2 highlight the degree to which each sample contributed to the categories.

Results

The major themes presented in this section pertain to coaches' perspectives regarding the (a) nature of cohesion on male and female sport teams, (b) antecedents of cohesion, and (c) management of cohesion in both settings. However, coaches consistently highlighted several caveats before the discussion of gender differences with respect to cohesion and performance. Given the strong connection to research presented in the introduction (i.e., Etnier, 2011; LaVoi et al., 2007), these perceptions are presented as a lead-in to the main themes.

Caveats to Gender Differences Regarding Cohesion

Before highlighting their thoughts about potential differences between genders with respect to cohesion, a majority of coaches prefaced their remarks with specific caveats about the Carron, Colman, et al. (2002) findings. These remarks were classified into three categories: stressing the (a) importance of cohesion for both genders, (b) level of competition as a moderator, and (c) consideration of individual personalities and contexts (see Table 1). With respect to the first category, the vast majority of coaches conveyed their belief in the importance of cohesion, generally, within their sport. For example, one coach expressed that "I strongly believe that the more cohesive the team is, regardless of gender, the more successful the team is going to be." (C)

As it pertains to the latter two categories, coaches reflected on how the competitive level that they were coaching may dictate many of the differences within their comments. For example, coaches wondered about the importance of the need to get along for world-class/elite performers (regardless of gender). In addition, although there may be broad differences between genders (as reported by Carron, Colman, et al., 2002), the coaches cautioned that the relevance of this finding may be difficult to apply when examining individual athletes or singular group environments. One coach stated "I had the same experiences with men and women…but then I had also different dynamics in men's groups and women's groups. It's not always the same. It's a little bit depending on the individuals involved." (C) In some cases, the perception that the importance of cohesion is similar for male and female sport teams was reflected in comments questioning the actual practical differences (vs. statistical examination via the meta-analysis) that exist across genders.

Nature of Cohesion

Coaches identified several ways that cohesion may manifest itself differently on male and female teams

Table 1 Summary of Categories Pertaining to the Caveats of Gender Differences and the Cohesion-Performance Relationship

Category (MUs)	MUs by Country	Coaches (*n*)
Importance of cohesion for both genders (32)	27C 5G	9 C 4G
Level of competition as a moderator (3)	3C	2C
Consideration of individual personalities/singular contexts (12)	12C	7C

Note. MU = Meaning Units. The number of coaches indicates how many coaches from each country's sample reflected on each category. 'C' refers to the number of meaning units (or coaches) from Canadian participants. 'G' refers to the number of meaning units (or coaches) from German participants.

Table 2 Summary of Categories/Subcategories Pertaining to Perceptions of Gender Differences and the Cohesion-Performance Relationship

Category (MUs)	Subcategory (MUs)	MUs by Country	Coaches (*n*)
Nature of Cohesion (62)	Overall importance of cohesion for female teams (43)	24C 19G	10C 9G
	Types of cohesion (8)	8C	6C
	Direction of the cohesion-performance relationship (5)	5C	3C
	Temporal differences in developing cohesion (6)	5C 1G	3C 1G
Antecedents of Cohesion (65)	Role differentiation and status (17)	14C 3G	7C 3G
	Clique formation (12)	9C 3G	5C 3G
	Approach to conflict and adversity (34)	13C 21G	5C 7G
	Style of play (2)	2C	2C
Managing Cohesion (54)	Importance of developing social cohesion (21)	7C 14G	4C 6G
	Managing early season competition (6)	4C 2G	2C 1G
	Focusing on group structure (15)	4C 11G	2C 6G
	Managing conflict (12)	7C 5G	2C 4G

Note. MU = Meaning Units. The number of coaches indicates how many coaches from each country's sample reflected on each category. 'C' refers to the number of meaning units (or coaches) from Canadian participants. 'G' refers to the number of meaning units (or coaches) from German participants.

(see Table 2). The subthemes related to (a) the overall importance of cohesion, (b) the salience of specific dimensions of cohesion (i.e., task and social cohesion), (c) the direction of the cohesion-performance relationship, and (d) temporal considerations of developing cohesion with sport groups.

Overall Importance of Cohesion. The vast majority of Canadian and German coaches indicated their belief that the development of cohesion is particularly important with female teams. For example, one coach stated:

> Every year the number one thing with the women's team is make sure they get along otherwise you're dead in the water. And I've had teams that have started fighting and as soon as they started fighting, unless you can fix it, you're dead. You're absolutely dead. (C)

This was echoed by a German coach who noted "My observations are that for the females, the need for harmony within the training group was stronger than for men." (G) To further illustrate this potential difference, a third coach described a situation in which teammates did not get along: "You can have five guys that can have a good powerplay, and that team can fight like cats and dogs and still be successful on the ice. It's not quite that way with women's sports." (C)

Type of Cohesion. In addition to differences with respect to the overall importance of cohesion within teams, Canadian coaches further differentiated the sport contexts by focusing on the specific dimensions of cohesion (i.e., task and social). Referring to a lower competitive level, one coach observed that "Girls are definitely more social. Within the club environment and high school environment, the kids that play together usually chum around together, or are best friends, they do things together. The boys, not so much." (C) Another coach perceived that males may not take advantage of the benefits of social cohesion, noting that "The guys I think are slower in the uptake of trying to get this [social] cohesiveness. Guys are, generally speaking, a little more self-absorbed, a little more reserved." (C)

Direction of the Cohesion-Performance Relationship. Coaches from both countries suggested that the findings pertaining to the direction of the cohesion-performance relationship were interesting when considered in light of gender. A summary of their comments indicated that males are more likely to derive cohesion from successful performance, whereas females may be more likely to derive successful performance by having a cohesive group. The following statement highlights this perception: "Looking back on teams that I've played on, women's teams will win if they get along, men's teams will get along if they're winning." (C) As another example, a German coach highlighted a scenario in which female athletes perceived their opponent as being more united:

> For women, to perceive that one's own team has less cohesion than the opponent team gives the feeling of playing against a superior opponent or against more players, which is not real on the court. I think that this can affect the women more strongly. (G)

Finally, underscoring the directionality of the relationship, another coach provided a descriptive comment of male and female sport environments in relation to performance:

> It's been my experience that just because we're winning doesn't mean that everything is great with

> a female team. Whereas most men's teams, that I've been a part of anyway, when we're winning it was way easier to sit on the bench or way easier to play. We all wanted to be together when we were winning, and we couldn't wait to get apart from each other when we were losing. (C)

Temporal Differences in Developing Cohesion. A final subcategory related to temporal aspects of cohesion development. A subset of coaches discussed gender differences in the speed and depth of cohesiveness that the teams developed over the course of a competitive season. For example, a Canadian coach noted "I think for women, initially everyone, all the girls, get along but maybe it takes a little bit more time to peel back the layer, per se, to get that true cohesiveness" (C), whereas a German coach observed that "Group cohesion is harder to achieve in female teams because women handle things more on a personal level. Men, however, are very quick in gaining cohesion." (G)

Antecedents of Cohesion

Four subcategories constituted the larger theme relating to the antecedents of cohesion and gender. These included (a) role differentiation and status, (b) clique formation, (c) approach to conflict and adversity, and (d) styles of play.

Role Differentiation and Status. A number of coaches from both samples indicated that aspects relating to the underlying psychological structure of the sport group were important for the development of cohesion. Furthermore, they discussed these structural aspects differentially in terms of male and female teams. For example, a Canadian coach described his experiences involving how quickly male teammates establish a status hierarchy:

> The majority of men do a really good job of figuring out a pecking order real quick. "He's the best centerman, I'm third line, I can accept that and away we go". . .When teams start to have cohesion problems is when people don't have a clarity in where they fit in the team dynamic. (C)

In comparison, another coach discussed issues pertaining to the disruption that could occur to the structure of the group when outside individuals are brought into a tight-knit female team:

> With girls you think very carefully about bringing someone up [from a lower competitive level] because it does upset the dynamics and cohesiveness, and you're treading a fine line. I have seen boys are far more amenable to bringing someone up if they feel it is going to help them be more competitive on the playing field. (C)

Clique Formation. The last example in the previous subtheme hinted at an important issue; the development of subgroups within the team (i.e., cliques). This subgroup development was viewed as a detriment to group cohesion and that female sport teams may be more prone to these occurrences. For example, a German coach noted that "In female teams subgroups develop more quickly, due to interests or sport reasons" (G), whereas a Canadian coach commented on the degree of visibility of the subgroups when they start to emerge in female sport teams, stating "I can only go by what I see when I go to practice, but it's very clear who's in with who, and who's not with who." (C) However, it was also very clear that these developments are not isolated to one gender, as one coach described:

> I think the guys are cliquey, but not the extent that it is intentional. There are social events that guys might go out for dinner, where everyone is welcome but only a certain group would go. I find that the relationships within those groups are pretty strong and they seem to spread across more of the team, as opposed to the girls who kind of go off on their own little groups. (C)

Approach to Conflict and Adversity. ne of the larger subthemes derived from the interviews pertained to perceptions about approaches to conflict and how this differed between male and female sport environments. Overwhelmingly, these comments focused on the degree of openness in which conflict was engaged between members. As one coach succinctly stated: "With guys it's just more overt. Women it's a little more covert" (C), which was further supported by her German counterpart: "The handling of personal conflicts is easier for men. On the court, they nearly hit each other and after that they go out to drink a beer and forget about their conflict." (G) Finally, another coach communicated a similar perspective and also linked these processes with group cohesion: "I think that women will harbor that resentment longer and they won't bring it to the surface, it won't kind of explode to the surface. It will sit underneath longer which kind of tears at that cohesion." (C)

Style of Play. Two coaches from the Canadian sample intimated that the perceived level of interdependence within the team could be antecedent to perceptions of cohesion or, perhaps, moderate the cohesion-performance relationship. As one coach suggested, "[In] women's sport there's more dependencies on each other I think, they need to win as a team more than just be carried by an individual." (C)

Managing Cohesion within Male and Female Sport Teams

A final major theme pertained to coaches' perceptions of managing (e.g., developing, maintaining) cohesion within their sport teams. Four subthemes arose from participants' responses and relate directly to previously discussed antecedents of cohesion. These include (a) the importance of developing social cohesion, (b) the management of early season competition, (c) focusing on group structure, and (d) managing conflict.

Importance of Developing Social Cohesion. For both male and female teams, coaches noted the need to develop social cohesion among the members:

> I think for women it's really important that they get together outside of the sport. So, for example, going to team dinners or going to a movie, or team events outside of the sport. I also think that can be a really good thing for the males. (C)

Furthermore, another participant encouraged a more proactive approach with his male athletes to ensure that social activities were taking place within the team:

> I maybe would be a touch more proactive with our captain to say it's a good idea if you wrote all the guys, here's all their email addresses during the summer, see how they are doing. Don't be afraid to take on a leadership role. So I think you might need to encourage the guys to be more proactive. (C)

Finally, a reference made by a German coach highlighted again the need to prompt male teams to consider social components of group involvement over the course of the season, stating "The sustainability is different: With the women, it is enough to initiate it once and then it can be kept for a long time. With male teams, I have to initiate it again and again." (G)

Managing Early Season Competition

Following from earlier statements pertaining to potential differences between males and females in the direction of the cohesion-performance relationship, coaches suggested methods in which early season competition could be manipulated to benefit the team. For example, with respect to male teams, one coach suggested:

> So if what I said earlier is true, that men's teams will get along if they are winning, go and do some things where we are going to be successful early on, so that they come together and then it's going to be harder to tear that apart. (C)

In contrast, a different coach discussed early season competition with a different objective in mind for female teams: "Have an early season tournament or an early season parent/player gathering to give the girls a chance to bond, to act as a team." (C)

Focusing on Group Structure. A number of comments were provided by the participants in relation to structural issues in the group. These comments specifically highlighted concerns with status, role involvement, and the integration of new members. For example, one coach noted:

> A coach has to be very honest with [the athletes] and tell them this is your place on the team. I think if you communicate where they stand in the ladder of starters vs. bench players, perhaps that's the best way to get them to buy in to where their role is. They have to know their role ultimately on the team. If the coach doesn't state that, you get into problems with the girls and it can create a lot of havoc on the court and behind the scenes so communication is really important in my mind. With the boys, I don't see it as much as I have with the girls. (C)

Managing Conflict. A final subtheme related to potential differences between males and females with respect to how conflict has to be managed by the coach. Specifically, the comments related to translation of social conflicts to the task environment in addition to the management of clique/subgroup development. With respect to the former, one coach described a specific experience with managing nontask related conflict in a female sport team:

> I think with the help of a sports psychologist, we have really impressed upon them that if you can't park it at the door, and if that stuff becomes a problem for the team, then we're going to make changes. It's just an expectation that you have to drop that baggage. (C)

Following from comments contained under a previous subtheme highlighting the possibility that female teams may be more prone to clique formation, another coach discussed purposeful attempts to intervene and try to find ways to bring the various subgroups together:

> I just need to observe how the different groups stand to each other. Otherwise it can happen that one subgroup oppresses another one, so it is not possible anymore to develop or establish good performance. So I have to act more and more as an agent between the groups, as a unifying person. I figured that women have difficulties to accept that they can't be best friends with all players, and that you can also play with someone whom you don't especially like. For men, this is no problem. (C)

Discussion

Using the results of a meta-analysis conducted by Carron, Colman, and colleagues (2002) as its underlying basis, the general purpose of the current study was to explore the cohesion-performance relationship as held by coaches who have led teams of both genders. The themes and subthemes communicated in the results section offer a wealth of information pertaining to both perceived similarities and differences between males and females with respect to the cohesion-performance relationship and raise several issues that are discussed in subsequent paragraphs.

A first issue pertains to the coaches' perceptions that the cohesion-performance relationship is highly relevant to both male and female sport teams. Moreover, the competitive level was seen to be an equally important variable influencing the degree to which team cohesion is related to group outcomes. With respect to the former point, the coaches' perceptions are congruent with the

findings provided by Carron, Colman, and colleagues (2002). Although they found a moderating effect of gender, indicating a stronger relationship between the two variables for females, Carron, Colman, et al. also noted that the relationship found for males (*ES* = .556; $p < .05$) was indicative of a moderate and significant effect. In essence, the cohesion-performance relationship is relevant to all sport teams; however, it is perhaps more important for female teams. This result is also in line with the theorizing of Baumeister and colleagues (Baumeister & Leary, 1995; Baumeister & Sommer, 1997) who suggested that the desire for, and influence of, interpersonal relations are present for everyone. However, Baumeister and Sommer also noted that the strategies through which males and females attempt to satisfy their need to belong and engage in interpersonal relations may differ. Some of these differences are noted in the results and outlined in later stages of this discussion.

The latter point pertaining to competitive level influencing the degree to which cohesion is related to performance is interesting in light of the foundational article of the current study. A summary of the coaches' comments is that one might expect the relationship to lose strength as competitive levels become more elite. In fact, Carron, Colman, et al. (2002) were not able to statistically demonstrate that competitive level moderated the cohesion-performance relationship. However, a closer inspection of the effect sizes suggests a trend that is congruent with the coaches' perceptions. The lack of significance found in their moderation analysis examining competitive level could be a reflection of the limited number of professional sport-level studies and may not offer the final word on whether the cohesion-performance relationship differs across competitive levels. The identification of contexts in which the cohesion-performance interplay is more substantive would help practitioners direct their efforts from an intervention standpoint (e.g., to work with an individual or group focus).

Keeping in mind coaches' assertions that the cohesion-performance relationship is important for both male and female sport teams, and our own assertion that the strength of the relationship found in any one sample is not value-laden (i.e., good vs. bad), coaches noted interesting differences between males and females with respect to the cohesion and performance link. Two such differences related to other potential moderators examined by Carron, Colman, et al. (2002); the influence of the type of cohesion and the direction of the cohesion-performance relationship. First, in the current study, Canadian coaches suggested that social cohesion in female teams may be (a) focused-on and developed to a greater extent and (b) more important with respect to its link with performance. Unfortunately, the examination of social and task cohesion in relation to team performance was not further examined *by gender* in the meta-analysis (Carron, Colman, et al.; i.e., only through the total sample) so empirical insight into this suggestion would be useful. Although coaches did refer to issues salient to task cohesion within the interviews (e.g., see comments pertaining to role differentiation and status as well as style of play), it is interesting to note the predominance of possible differences discussed related to social cohesion. From a practical perspective, it does speak to the potential need of ensuring social cohesion within female teams and prompting greater consideration of developing social cohesion within male teams but also, more importantly at this stage, further research to generate support for these propositions.

Second, the direction of the cohesion-performance relationship was also suggested to be a potential difference with respect to male and female sport groups. Specifically, it was suggested that a cohesion-to-performance link may be more salient for females, whereas a performance-to-cohesion relationship may be more likely for males. This is an interesting perspective on an issue that has occupied researchers for some time (e.g., Bakeman & Helmreich, 1975; Dorfman & Stephan, 1984; Levine & Moreland, 1990; Mullen & Copper, 1994; Carron, Colman, et al., 2002) and has led to a cautious conclusion that both directions are viable. However, to our knowledge, no one has tested whether the direction of the cohesion-performance relationship differs with respect to gender and thus represents an important future research direction that could lead to more specific strategies for team-building and performance enhancement. For example, if it is identified that performance leads to cohesion in certain subgroups, coaches of those teams may need to purposefully focus efforts on providing ample and/or alternative opportunities for the team to achieve a sense of success (e.g., promotion of process oriented goals). Overall, despite the simplified uni-directional depictions used above, the cohesion-performance relationship is likely more complex, dynamic, and cyclical, and thus worthy of continued consideration within group dynamics research.

Over the course of the interviews, participants highlighted a number of structural aspects of the group (e.g., clique formation, role differentiation, and status) that might differ between males and females and have the potential to influence the strength of the cohesion-performance relationship. Perhaps most notably across German and Canadian samples was the discussion surrounding the development of subgroups within teams (i.e., cliques). Cliques are inconsistently defined in the extant literature—at times described as groups of more than two, three, or four members—but they're generally viewed as entities that are very tight-knit and consist of reciprocating friendships (Henrich, Kupermine, Sack, Blatt, & Leadbeater, 2000). Although the literature of clique formation in sport teams is virtually nonexistent, a summary of research across academic fields suggests that this phenomenon could play an important role in how cohesion relates to team performance. First, although the bulk of literature on cliques is focused on adolescents, the formation of these types of intense relational subgroups appears to be prevalent throughout the lifespan. For example, Salari, Brown, and Eaton (2006) described the development of friendship cliques in an observational

study of territorial displays within the dining halls of seniors' centers.

Second, in line with Cross and Madson's (1997) point about potential differences in self-construal (i.e., independent and interdependent) between genders, Henrich et al. (2000) summarized literature supporting that females may be more concerned and competent with respect to interpersonal relations, more likely to form cliques, and that membership in "tightly-knit groups…is associated with consistently more adaptive outcomes….In contrast, membership in friendship groups made little contribution to explaining differences in [males'] adjustment" (p. 23).

Finally, the only published study concerned with cliques in a sport context (Eitzen, 1973) found that the presence of these subgroups within teams reduces the chances of winning. Overall, if (a) females are concerned with interpersonal relations within their group, (b) more prone to developing exclusive and tight knit clusters of individuals, and (c) the development of cliques are linked with performance, then an applied implication is that coaches and players need to be aware of the development and strength of subgroups within the overall team environment. On one hand, if the team itself represents the clique (i.e., all players are tight-knit) to the exclusion of other teams or social entities, this might represent a performance advantage for females. On the other hand, if the larger group devolves into subgroups, the reduction or elimination of these entities would seem to be desirable, especially within female teams.

Temporal differences for cohesion were also noted by several coaches—who suggested that the speed and quality of group cohesion development may differ for male and female sport teams as the season progresses. These perceptions held by the coaches represent an interesting intersection with group development literature, although there is very limited information in sport regarding the trajectories of group processes across a competitive season. There are certainly many theories about how groups develop (for an overview see Arrow, Poole, Henry, Wheelan, & Moreland, 2004) and the complexities of this process cannot be overstated. The additional consideration of gender as a moderating variable adds to this complexity. Furthermore, conflict, a subcomponent of a number of developmental theories (e.g., storming stage, Tuckman & Jensen, 1977; counter-dependency and fight, Wheelan, 2009), was yet another group process identified by coaches as potentially differing between males and females. Generally speaking, conflict has been understudied in sport groups (Martin, Bruner, Eys, & Spink, 2014) and the results of the current study and the extant group development literature lead to the suggestion that researchers should consider gender and the temporal dynamics of groups when investigating this concept.

Despite the fact that contrasting German and Canadian coach responses was not an objective of the current study (i.e., the countries of origin of the coaches reflected those of the researchers) and that there is some difficulty in truly contrasting responses of samples using a qualitative approach, the methods used in the current study allowed for post hoc comparisons. There is evidence to suggest that affiliation perceptions (Wong & Csikszentmihalyi, 1991) and self-construals (Cross & Madson, 1997) differ based on culture. Overall, it did not appear that the German and Canadian coaches differed markedly in their perceptions of gender differences with respect to the cohesion-performance relationship. Both groups highlighted the caveat that cohesion is important for both males and females but also noted a series of observations related to differences with respect to the nature, antecedents, and management of group unity. However, there were some observed differences in the frequencies with which the two samples discussed the various themes/subcategories (see Tables 1 and 2). Notably, only Canadian coaches discussed issues pertaining to the type of cohesion, direction of the cohesion-performance relationship, and style of play. In contrast, German coaches touched on issues of conflict and the importance of developing social cohesion in female teams more frequently than did Canadian coaches. While we stress that the frequency of responses from any one group on a topic does not necessarily act as a proxy for its importance, additional research using other methodologies (e.g., surveys) could shed light on whether there are contextual differences in these areas across countries.

It is likely that the general cultural differences between our two groups of coaches were rather minimal. Future research could consider a reexamination of issues in the current study with coaches representing greater cultural diversity (see Schinke and Hanrahan, 2009, for an overview of cultural sport psychology). For example, issues pertaining to the influence of cohesion on performance may differ profoundly when contrasting perceptions of individuals coming from societies that are more individualistic or collectivistic. As Schinke and Hanrahan stated, "collectivistic societies, such as China and Japan, value needs, wishes, and desires of groups over those of individuals, and emphasize harmony, cooperation, cohesion, and conformity" (p. 7). Our participants were sampled from two characteristically individualistic societies, so investigating implications of the individualism-collectivism continuum on the cohesion-performance relationship, and its intersection with gender differences, represent interesting avenues for future research.

The present study offers interesting insight into the relationship of cohesion and performance as it pertains to gender. However, there are several limitations worth noting about the study's procedures and scope. First, as is common with in-depth qualitative studies of this nature, the generalizability of the findings is constrained. Although the participants represented different countries, both genders, and coached a variety of sports, they remain a sample that is limited with respect to cultural variability (i.e., North American/European) as well as coaching characteristics (e.g., relatively experienced coaches). Exploring perceptions of a broader range of coaches could offer greater insight into the issues under investigation in the current study. It should also be noted

that the sports represented by the coaches did vary with respect to the relative degree of interdependence (i.e., the degree to which the actions and goals of one person reciprocally influences those of others; Keohane & Nye, 2001). Although Evans et al. (2012) encouraged greater consideration of group dynamics within sport contexts based on task, collective outcome, and individual outcome interdependencies, we did not specifically probe or ask coaches to draw comparisons across sport types.

Second, similar to the previous point, the viewpoints obtained in the current study were a reflection of one source-type of participants (i.e., coaches). There could be some benefit in triangulating the perceptions of the current sample with those of individuals who may also hold unique insight into the issue under investigation. For example, these could include (a) athletes (generally), (b) parents of sons and daughters who could comment on and contrast their offsprings' sport experiences over several developmental periods, and (c) athletes of teams in which males and females train and/or compete together (e.g., cross-country running, Ultimate Frisbee). Interestingly, as it pertains to the latter point, the coaches of sports in which male and female athletes train and travel together (e.g., cross-country running, track and field) commented on the potential uniqueness of their context compared with more segregated situations. For example, one coach highlighted that the efforts and team approach of the females in the group was thought to provide positive modeling for the males: "The beauty I see of a co-ed sport where we basically practice together, virtually do the same workouts, [is that] the guys get to see the women working hard, the women get to see the guys working hard. But the women, I think, take the lead. It serves as a good example for the guys." Future research should examine the unique group dynamics in mixed sport contexts in further detail.

A third limitation is that the study's methods and key questions did not effectively draw out responses that would allow further discussion pertaining to the underlying social construction of gender norms and expectations within sport. The coaches' responses reflected more proximal issues related to the links between cohesion and performance for male and females (e.g., tendencies for clique development) based on their experiences. However, important issues remain to be considered in terms of how individuals are socialized into sport and, more specifically, into their sport teams. Other researchers provide a more expert and detailed analysis of these issues than is contained within this study (e.g., Krane & Kaus, 2014).

Overall, the results of the current study have implications for research, theory, and practice. A number of themes offer testable propositions regarding gender differences and the cohesion-performance relationship including the salience of different types of cohesion (i.e., task and social), the direction of the relationship, in addition to the influence of and/or differences between males and females with respect to other group issues such as role differentiation, status, subgroup development, and conflict. Furthermore, the coaches also offered some insight into very practical concerns regarding the development/maintenance of group unity and the influence on performance. Although many of these issues have yet to be empirically tested, they do allow for some consideration with respect to the team-building practices of coaches and sport psychology consultants. Finally, the issues raised in the study strengthen the relative merits of examining gender differences in sport, given that past efforts have at times problematized females' involvement in sport and/or lacked an empirical basis for the issues under investigation. In the present case, there is evidence to suggest that the cohesion-performance relationship does differ between males and females (Carron, Colman, et al., 2002) and the coaches who led teams of both genders had very consistent perceptions about the various group environments. However, an indication of differences does not imply that one approach is better or more 'normal' than another. Rather, a greater understanding of how individuals engage in their environment should inform best practices such that teams, female or male alike, can attain optimal performance.

Notes

[1]There is an extensive and long-standing literature on group cohesion outside the sport context (e.g., general social psychology, organizational behavior). For the sake of brevity, this is not covered in the current paper. For the interested reader, as only one example, Forsyth (2014) provides an overview of cohesion literature within the text *Group Dynamics* (6th ed.; pp. 133–164).

[2] For the sake of clarity, the fourth author's affiliation was with the German Sport University Cologne but she was a visiting researcher at Wilfrid Laurier University during the data collection and analysis phases of this project; thus, she participated in the analysis of the Canadian dataset with the third author.

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