

Coaches' Perceptions of Team Cohesion in Paralympic Sports

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The purpose of this study was to investigate Paralympic coaches' perceptions of team cohesion. Seven head coaches of summer and winter Canadian Paralympic sport teams participated in the study. Four participants coached individual sports and 3 coached team sports. Data were collected using semistructured interviews and analyzed using thematic analysis. The results addressed the coaches' perceptions of cohesion in the Paralympic sport setting and strategies used to foster cohesion with their teams. Participants described using techniques and strategies for enhancing cohesion that were similar to those in nondisability sport, such as task-related activities, goal setting, and regularly communicating with their athletes. They also listed how cohesion was distinct to the Paralympic setting, such as the importance of interpersonal activities to build social cohesion. The implications of these results for coaching athletes with a disability are also presented.

Keywords: coaching, group dynamics, athletes with a disability

Participation in Paralympic sports has grown substantially since 16 wheelchair competitors participated in an archery event in 1948 (Schültke, 2001), compared with over 4,000 athletes at the 2012 London games (International Paralympic Committee, 2013). The growth in the number of participants and the popularity of Paralympic sport has led to higher performance and competition levels. Despite this, research in Paralympic sport is limited, especially with regard to coaching (Hanrahan, 2007; Tawse, Bloom, Sabiston, & Reid, 2012). It is important to study coaching in Paralympic settings, given that research has found a relationship between coach behavior and improvements in athlete motivation and success (Banack, Sabiston, & Bloom, 2011; Cregan, Bloom, & Reid, 2007).

Coaching athletes requires fundamental skills such as providing appropriate feedback, setting realistic goals, developing skill progressions, and structuring

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training volume, intensity, and periodization (Horn, 2008). Beyond these foundational skills, coaching athletes with a disability requires strategies and knowledge specific to their coaching context, which may be related to accessibility, transportation, the many different impairments, and promoting independence (Banack et al., 2011; McMaster, Culver, & Werthner, 2012; Tawse et al., 2012). Furthermore, a coach in this environment may also have to simultaneously adapt training plans for athletes with impairments, such as an athlete with a lower limb amputation.

While disability-sport research, educational programs, and workshops offered by coaching associations around the world have had an impact on helping coaches improve their knowledge and coaching behaviors (Cregan et al., 2007; McMaster et al., 2012; Werthner & Trudel, 2009), the focus has not been on improving the coaches' skills in relation to psychological factors related to the team, such as cohesion (Moffett, Dieffenbach, & Statler, 2009). Instead, the focus has been on individual psychological skills such as imagery, emotional control, and attentional focus (Coaching Association of Canada, 2014). This is surprising because research has shown that coaches trained in improving team cohesion for athletes without a disability created a more positive team environment that was linked to improvements in team satisfaction and success (Bloom, Stevens, & Wickwire, 2003). Furthermore, sport psychology practitioners working with the U.S. Paralympic program have long advocated for the implementation of workshops devoted to the importance of developing team cohesion among Paralympic athletes (Moffett et al., 2009).

Team Cohesion

Carron, Brawley, and Widmeyer (1998) defined cohesion as “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 members affective needs” (p. 213). Along with this definition of cohesion, Carron, Widmeyer, and Brawley (1985) also advanced a conceptual model that emphasized the multidimensional nature of cohesion. The development of this conceptual model stemmed from three assumptions (Carron et al., 1998). First, cohesion is a group property that can be assessed through the perceptions of individual team members. Second, each team member forms perceptions of cohesion that are related to both the group as a whole and the degree to which the team satisfies personal needs and objectives. Third, individuals on teams have task- and social-oriented perceptions of cohesion. A task orientation represents a general motivation toward achieving the team's goals (Carron et al., 1998). A social orientation signifies a general motive toward maintaining and developing social relationships with team members (Carron et al., 1998). Based on these three assumptions, Carron et al. (1985) advanced a conceptual model that identified four dimensions of cohesion. Specifically, Group Integration–Task represents an individual team member's perceptions of task unity as a whole. Group Integration–Social represents an individual group member's perceptions of social unity within the group as a whole. Individual Attractions to the Group–Task represents an individual team member's feelings of personal involvement with the group's task, productivity, and goals. Finally, Individual Attractions to the Group–Social represents an individual team member's feelings of personal and social acceptance within the group.

Using the conceptualization of cohesion, researchers found these four dimensions to be critical aspects of a team's functioning (Loughead & Bloom, 2013) that positively related to team success (Carron, Colman, Wheeler, & Stevens, 2002). Furthermore, cohesion has also been related to greater adherence to sport (Loughead, Colman, & Carron, 2001), higher athlete satisfaction (Loughead & Carron, 2004), and increased motivation (Halbrook, Blom, Hurley, Bell, & Holden, 2012). Consequently, developing team cohesion is a crucial role of the coach (Bloom et al., 2003) and to our knowledge one that has not been studied in a Paralympic sport setting.

Coaching Athletes With a Disability

While empirical research pertaining to coaching science and education has increased, much of this research has focused on elite-level coaches of athletes without a disability (Gilbert & Trudel, 2004). Empirical research on coaches of athletes with a disability is only beginning to garner attention and is still underdeveloped (e.g., Banack et al., 2011; Cregan et al., 2007; McMaster et al., 2012; Tawse et al., 2012). For example, Cregan et al. found that athletes with a disability, their parents, and members of their support-staff team were vital sources of knowledge for helping coaches build their athletes' autonomy in life and achieve success in sport. Banack et al. used self-determination theory (cf. Deci & Ryan, 1985) to investigate the motivation of Canadian Paralympic athletes and found that perceived coach autonomy support was related to athlete autonomy and relatedness, while perceived competence and autonomy were associated with an athlete's intrinsic motivation. Finally, Tawse et al. found that Paralympic coaches encouraged their athletes to set personal and sport goals that were intended to promote independence and autonomy in both their athletic and personal lives. The results of these studies emphasized that autonomy-supportive coaching behaviors helped athletes achieve greater satisfaction and performance success both inside and outside the sport setting. Furthermore, research has shown that youth sport coaches who are perceived to be competent by their athletes enhanced the use of goal setting (Coatsworth & Conroy, 2009). As such, goal setting appears to be an important skill for coaches to promote in their athletes since it allows for positive development on the part of the athletes (Larson, 2000).

Despite the importance of the coach in fostering athlete autonomy, little is known about the impact of cohesion for athletes with a disability. This is relevant because researchers agree that building team cohesion may be important for athletes with a physical disability, who are at greater risk of psychosocial and developmental challenges than those without a disability (e.g., Campbell & Jones, 2002; Loughead & Bloom, 2013). For example, Campbell and Jones found that wheelchair athletes identified poor group interaction and ineffective communication about team and individual performances as sources of stress. In addition to the psychosocial benefits provided by enhanced social relationships, physical activity for individuals with a disability profoundly influenced their social development, behavior patterns, and attitudes (Berndt, 2002), as well as their perceptions of health and independence, pain control, and the maintenance of function (Tawse et al., 2012). Furthermore, a long-standing tenet in psychology is that human behavior is a product of both personal (i.e., dispositions) and situational (i.e., characteristics in the environment) factors. That is, while human behavior can be described solely as an individual construct, the importance of groups in regard to behavior cannot be underestimated

(McGrath, 1984). In fact, Baumeister and Leary (1995) argued that individuals have a need to belong to groups (e.g., sport teams). Moreover, Lott and Lott (1965) argued that cohesion is the most important group variable. Given this importance, the purpose of the current study was to investigate Paralympic coaches' perceptions of team cohesion.

Method

Participants

Seven male head coaches of summer and winter Paralympic sport teams participated in this study. Four participants coached individual sports and 3 coached team sports. The average age of the participants was 42.67 years (range 31–55), and their average years of experience coaching elite athletes with a disability was 11.28 (range 2–31). The participants' experiences coaching athletes without a disability ranged greatly in level of competition (youth, high school, university, and provincial teams) and time (2–36 years). All the coaches had completed university degrees, 5 with a specialization in kinesiology or physical education. All had participated in the National Coaching Certification Program offered by the Coaching Association of Canada, although none had coach-education training geared specifically toward athletes with a disability.

Procedure

Criterion-based sampling (cf. Sparkes & Smith, 2014) was used to select participants who were recommended by a panel of experts as being among the best coaches in their region. The panel included current and former members of the Canadian Paralympic Coaches Council. After institutional ethics approval was obtained, Paralympic head coaches were contacted by e-mail, provided with a description of the study, and invited to participate. Coaches who agreed to participate identified a time and location for a meeting to take place. The meeting locations varied from hotels, competition arenas, and training centers to the participants' homes.

One face-to-face semistructured open-ended interview was conducted with each participant. This type of interview allows the interviewees the flexibility to share their thoughts and feelings and to focus on the topics they feel are most important (Sparkes & Smith, 2014). Thus, participants can address any information they consider relevant, limited only by the topic of discussion (Rubin & Rubin, 2012). Semistructured interviews allow for interpretations of participants' discourse and aim at understanding the meaning of respondents' experiences (Rubin & Rubin, 2012).

Members of the research team who have extensive knowledge on leadership, coaching, cohesion, and disability sport created a 14-question interview guide (see Appendix). Two pilot interviews were conducted to help train the interviewer and assess the interview guide. Five opening questions introduced the topic and initiated conversation by focusing on the participants' personal experiences. Six questions addressed the key elements of the study, which included the coaches' descriptions of their team, their understanding of cohesion, their role in building cohesion, and examples of activities used to build cohesion. Finally, three questions summarized

the topic of the study and allowed participants to add any information they found relevant. The interviews lasted 60–90 minutes.

Researchers' prior experiences can influence how the research is done and how the results are interpreted (Sparkes & Smith, 2014). As such, it is important to provide information about the investigators' prior experiences and assumptions. In the current study, the primary investigator had more experience in the topics of coaching and cohesion than adapted physical activity. Both co-authors had extensive experience publishing in the areas of coaching, cohesion, and disability sport. In addition, both co-authors had practical experience working as mental performance consultants in elite disability-sport environments. The primary investigator limited his prior experiences' and assumptions' influence on the research process and data analysis by being aware of them, paying close attention to the words used by the participants during the interviews, and not imposing a theoretical framework on the research process a priori (Sparkes & Smith, 2014). As well, regular discussions occurred with the primary investigator and the co-authors to challenge the primary investigator's views, including any prior experiences and assumptions.

Data Analysis

An inductive thematic content analysis was used in this study. Thematic content analysis consists of identifying, analyzing, and reporting thematic patterns in qualitative data (Braun & Clarke, 2013). First, the primary investigator became familiar with the data by repeatedly reading the transcripts. The interviews were transcribed verbatim, which resulted in 86 pages of single-spaced interview text. Minor edits were made to ensure confidentiality and improve the clarity of the statements. Second, initial codes were inductively identified from the data. Braun and Clarke described a code as "a label for a feature of the data that is potentially relevant for answering [the] research question" (p. 207). The transcripts were divided into 426 initial codes. Third, Braun and Clark recommended the use of subthemes, themes, and main overarching themes to combine the initial codes into broader levels. As such, similar codes were placed under the same subtheme, resulting in 39 subthemes. Similar subthemes were combined into themes. This process produced seven themes, which were labeled and described as (a) athletes' personal makeup—the coaches' description of their athletes, their injuries, and impairments; (b) coaches' background and personal makeup—the participants' descriptions of their athletic careers, coaching career, and their experiences with people with a disability; (c) contextual elements—which described the Paralympic setting and participants' experiences coaching athletes with a disability; (d) team makeup—the coaches' descriptions of the characteristics and psychological variables on their teams; (e) personal coach interactions—the coaches' communications with athletes, parents, and support staff; (f) describing cohesion—defined as the coaches' understanding of cohesion and its importance for team performance; and (g) building cohesion—coaches' experiences building team cohesion in the Paralympic setting, including how it differs from nondisability sports.

Finally, the themes were combined to form main overarching themes. Three main overarching themes emerged from this inductive process and were labeled background information, team dynamics, and cohesion. Background information was formed by the themes of athletes' personal makeup, coaches' background and

personal makeup, and contextual elements. Team dynamics was formed by the themes of team makeup and personal coach interactions, and cohesion was formed by the themes of describing cohesion and building cohesion. Information from the second and third main overarching themes was related to the purpose of the study and comprised the majority of the results.

Validity

Qualitative researchers have proposed a set of criteria to ensure the quality of their research (Braun & Clarke, 2013; Guba & Lincoln, 1989; Sparkes & Smith, 2014; Zitomer & Goodwin, 2014). Three criteria were particularly relevant for the current study: credibility, transferability, and confirmability. As noted by Sparkes and Smith, credibility refers to the extent the phenomenon under analysis represents the participants' experiences, transferability enables others to transfer the study to a different context, and confirmability refers to the data, analysis, and results being rooted in participants' experiences—rather than those of the researchers.

Four techniques were used in the current study to address each criterion: peer debriefing (Sparkes & Smith, 2014; Zitomer & Goodwin, 2014), member checking (Lincoln & Guba, 1985; Sparkes & Smith, 2014), thick description of the research process (Sparkes & Smith, 2014), and multiple-analyst triangulation (Braun & Clarke, 2013; Sparkes & Smith, 2014). Peer debriefing was used to ensure the credibility of the findings. This involves the process of exposing oneself to a peer in an analytic session that encourages reflection and exploration of alternative explanations and interpretations to the data (Sparkes & Smith, 2014; Zitomer & Goodwin, 2014). More precisely, the primary investigator regularly discussed his interpretations of the data with both co-authors, allowing him to be aware of his previous experiences and assumptions. Second, member checking was used to increase credibility and confirmability of the findings. This entailed listening to participants' feedback regarding the data under analysis (Lincoln & Guba, 1985). In this study, participants received a verbatim transcription of their interview to verify the accuracy of their ideas, clarify ambiguous quotes, and add information. Third, a thick description was used to ensure transferability of the findings (Sparkes & Smith, 2014). In the current study, this involved providing detailed information about participants and their background, the process of data collection (including the semistructured-interview guide), the primary investigator's previous experiences and assumptions, and the steps followed in the data analysis in the Methods section of the article. Finally, multiple-analyst triangulation ensured the confirmability of this study by an independent researcher separately analyzing the data after each step described in the previous section (Braun & Clarke, 2013). The independent researcher's analysis was compared with the authors' analysis and discrepancies were discussed at every step. The research team reached consensus before moving to the next level of analysis.

Results

The data collected in the interviews are presented in two parts. To begin, a summary of the coaches' personal characteristics and their perceptions of coaching in the Paralympic setting are presented (from the main overarching theme of background information). After this, information relating to coaches' perceptions of cohesion

in the Paralympic setting are presented (from the main overarching themes of team dynamics and building cohesion), along with a number of quotations to help illustrate these points.

Background Information

The analysis revealed that all coaches had extensive competitive sport experiences ranging from varsity to regional and national levels. None were Olympic or Paralympic athletes. The participants described different pathways to becoming a Paralympic coach. While some migrated from nondisability sports, others accepted job opportunities based on their interest in coaching athletes with a disability. One coach started coaching Paralympic sports as a way to spend time with his son who had a physical disability. Along the same line, 3 other coaches had personal experiences with people with a disability outside of sport: One had a colleague with a physical disability in university, 1 had a relative with a mental disability (but no physical disability), and 1 had a career-ending head trauma that permanently affected hearing and balance. Furthermore, the participants reported coaching a diverse group of athletes regarding age, education level, and responsibilities outside of sport. For example, many teams had athletes who were older, married, with children, and had full-time jobs, compared with others who were single and did not work or study. Finally, coaches reported working with athletes with a broad scope of impairments, with cerebral palsy, spinal-cord injuries, and amputations being the most common.

Coaches also shared their opinions and experiences working in the Paralympic setting. All of them felt that Paralympic athletes should be coached the same way Olympic athletes are coached, which involved adopting a high-level athletic approach to coaching. And, despite agreeing there are few differences between training Paralympic athletes and elite athletes without a disability, coaches alluded to the importance of adapting their practices to meet their athletes' needs.

The second and larger part of the interviews provided information central to the purpose of this study and is presented in two main overarching themes called team dynamics and cohesion. These main overarching themes addressed the team characteristics and interactions, which influenced cohesion, as well as the coaches' overall perceptions of cohesion and its importance in the Paralympic setting. The results are explained using interview quotations followed by a coach label (e.g., C1–C7) to identify the participant who provided the quotation.

Team Dynamics

The main overarching theme of team dynamics included descriptions of the teams' characteristics, the relationships between members, and how these were related to cohesion. The two themes in this main overarching theme were team makeup and personal coach interactions.

Team Makeup. Team makeup comprised the coaches' description of the characteristics and psychological variables of their team, including the relationships between athletes:

The dynamics in the team is much better than in the past 2 years. I have recently included the support personnel in building cohesion, and now we have a much

better atmosphere. My team just came back from an individual competition and everybody supported each other. They first focused on themselves, but they also cared about how their teammates performed. (C2)

One coach discussed how the team logo was important for building a relationship between athletes and improving team dynamics:

Our team values are part of our sport. It used to be “the relentless pursuit of excellence” and this year was changed to “winning the Canadian way.” Our team values changed along with our team Para logo. We travel more than other teams, like the Europeans. Teamwork becomes very important because we spend a lot of time on the road. I feel that having core values that represent us, and even a unique logo, helps our members relate to each other. (C4)

The most discussed subtheme in this theme was goals. All coaches mentioned setting goals with their athletes individually and collectively. While some had the help of a sport psychology consultant, others discussed them individually with their athletes:

I set goals with my athletes one-on-one all the time. I ask them what they want to do with the sport and where they want to go, and I tell them what they have to do to get there. (C1)

The team sat down and spoke about developing team objectives this year. We set out some key words that people could think of when they were at home training. They represent what the athletes want to do, how they want to be seen, and how they want to be respected within our sport’s community and the national sport programs. The words they think of are things like “world class.” Making the goals together is really good for team cohesion as everyone wants to have a say and it’s good to hear everyone’s thoughts. (C7)

Not surprisingly, participants who coached individual sports within a team setting regularly set individual goals with their athletes. However, the coaches of team sports also felt it was important to set individual goals with each of their athletes. Most team members lived in different parts of the country and only met with their team during training camps and competitions, which does not allow much time for team activities, including goal setting:

It’s really difficult for the athletes to build a relationship outside of training because they all live across the country and don’t get to see each other much. I have a couple that live in Vancouver, one on Vancouver Island, two in interior British Columbia, and two in Edmonton. We have one in North Bay, one in Toronto, and one north of Montreal. (C4)

The coaches used technology to build and enhance cohesion to overcome the geographical distances created by athletes living apart. For example, coaches used phone, Skype, iMessenger, and Black Berry Messenger to continuously communicate with their athletes: “Communicating with the athletes is very important and I talk to them often through Skype to see where they are, what they are thinking, and involve them with the cohesion of the team” (C6). Another

coach said, “I’ll call the athletes when we are home. I want to touch base with them and monitor their training logs and know what’s going on in their lives” (C7). The coaches felt that frequent communication was important to building the team dynamic and maintaining personal interactions while they were apart from their athletes. More information regarding the nature of these communications is presented next.

Personal Coach Interactions. The theme of personal coach interactions consisted of participants’ descriptions of their communication with athletes, parents, and support staff (e.g., technicians, support personnel, physiotherapists; support personnel being the professionals assigned to help athletes with a disability in their athletic performance, including cycling pilots, tappers in swimming, and boccia sport assistants). This theme was formed mostly by the coaches’ reports of their discussions with athletes individually, the team, and the support staff. All the coaches reported communicating with their athletes individually and with their entire teams. The discussions included a wide range of topics. For example, some coaches talked to their athletes about sport-related matters such as personal goals and level of commitment:

I asked one of my athletes where he wanted to go with the sport. He said he wanted to go to the top. I told him I could help him, but he needed to increase his commitment. After athletes commit to the program I will remind them of their goals and make sure we are all going in the same direction. (C1)

Other coaches highlighted the importance of discussing topics outside of sport at these camps: “Usually at every camp I try to touch base with the athletes one on one. I ask them how they’re doing, how home life is, etc. You have to show an interest in their lives to keep them happy” (C7).

The most mentioned subtheme in this theme was support staff, which addressed the role and relationship between the coach and the support staff. In this context, support staff included technicians responsible for athletes’ equipment, support personnel, physiotherapists, and sport psychology consultants. The coaches highlighted the value of these individuals:

I talk a lot to our team therapist. If someone is injured he is the one they will go and see. We need to be in constant communication because we need to be on the same page. Sometimes I see him for advice on how to do things. (C1)

Our athletes have support personnel that go to competitions with them. They help on and off the playing field, after games, and during meals. They are in the room with the athletes at night and help with everything the athletes are doing. (C2)

In particular, Coach 2 elaborated on the importance of the support personnel in building cohesion:

I approached the support personnel and talked to them about the team expectations and their role. Often the first person the athletes go to, even before the coach, is the support personnel. So they can help with building cohesion and team spirit and creating a much better atmosphere. (C2)

Cohesion

Cohesion included participants' understanding of the importance of cohesion and the strategies used to build it with their teams. It included two themes: describing cohesion and building cohesion.

Describing Cohesion. Describing cohesion encompassed coaches' understanding of cohesion. According to the coaches it involved a group with similar goals, good personal relationships, and good communication, which has a direct impact on team performance. For example, C6 said, "Cohesion means a group working together towards a similar goal, being on the same page."

Cohesion is when a group gets along together, works well together, and has goals they share. Cohesion is about getting along, because we are on the road 2–3 weeks at a time and it's good to feel together as a team. (C4)

Individual-sport coaches also felt that cohesion was important for establishing a positive environment:

Cohesion is the ability to work as a team and the ability to create a team environment. Our sport is not team based but when we travel, we travel as a team, and when we compete, we compete as a team. . . . Cohesion for us is creating a team environment in an individual sport. (C3)

Coaches mentioned good personal relations, communication, confidence, and respect as important elements of team cohesion:

I think the most important qualities for team cohesion are respect, confidence, and being open. It is important to have confidence, not only between athletes but also in the staff. To be open to criticism and different points of view is crucial, even being open to different languages and the barriers that it may cause. (C3)

When describing cohesion in the Paralympic setting, coaches mentioned that some of their athletes had to rely on their teammates for support, both emotionally and to complete daily tasks, and this affected team chemistry:

I think cohesion is more important in a Paralympic team than in an able-body team. My experience is mostly with CP [cerebral palsy] and they may be more affected by stress and anxiety than other athletes. That's why the cohesion is important: for athletes to support each other and work together. They need to feel supported. (C2)

I think cohesion is even more important in Paralympic teams and that comes from the lives these guys lead. Each of them has significant challenges away from [the sport] and coming to practice is an escape in some ways and they are looking for a cohesive experience. (C5)

Building Cohesion. The theme of building cohesion referred to coaches' experiences building team cohesion in the Paralympic setting. The participants mostly mentioned social activities, which included team activities such as dinners and movie nights:

The athletes do activities together like go to a restaurant or watch movies. We don't arrive at events and have cohesion. It is something you build in smaller training camps, which has been my goal in the last 2 years. During each camp we go out to the restaurant at the end of the day. Most of the time people get together in their rooms at night to play cards or watch a movie. We believe we need this as much as possible. (C2)

The athletes go to bars, movies, and hang out socially. The national team is spread out so the athletes come from all over the country and may not get the opportunity to see each other a lot. They may not see each other until the next camp or competitive opportunity. (C6)

One coach in particular discussed the shared responsibility of building cohesion:

I think that I'm a partner in developing the cohesion with the athletes. I need to make time to make it happen, find activities and be open to it. I think the athletes also need to help in this and need to take ownership of their training. My athletes are able to come to me with suggestions for activities. (C4)

Coaches also addressed some of the personal challenges faced when organizing team-building activities:

It is harder to do team-building activities in a Paralympic setting than in an able-bodied setting because of accessibility issues. For example, when you do not have a disability it is easy to do things on a whim. Five minutes after you have an idea you are out at the subway station to go downtown. We can't do that. We always have to plan in advance. When we organize activities we have to be sure we have transportation and there is enough room for people in a wheelchair (and the electric chairs make it even harder). (C2)

The different disability types influence the planning of activities and limit what you are able to do with your athletes. For example, something as simple as transportation is affected because most athletes can't walk four blocks. Our athletes cannot do simple physical things like everyone else does. (C5)

Discussion

The purpose of this study was to investigate Paralympic coaches' perspectives of team cohesion. The previous section described the coaches' experiences working in Paralympic sport, the impact of team cohesion in this setting, and the strategies they used to foster team cohesion. This section will discuss these topics in relation to pertinent literature.

Cohesion in the Paralympic Setting

The Paralympic coaches in this study described cohesion as the ability of a team to work together, share goals, and get along with each other. This description matches the definition advanced by Carron et al. (1998) that was created for non-disability-sport teams and described cohesion as a team's ability to come together and remain

united in the quest for a common goal. Similar to Carron et al.'s (1985) model, Paralympic coaches also alluded to the importance of both social and task aspects of cohesion. Consequently, the results of the current study extend Carron et al.'s (1985) model of cohesion to athletes with a disability where all four dimensions of cohesion were essential in fostering a team environment that allowed athletes with a disability and the team as a totality to reach their full potential. In particular, the coaches discussed the importance of fostering a team environment that allowed the development of friendships (i.e., Individual Attractions to the Group–Social) and to be shared with their team as a whole (i.e., Group Integration–Social). Furthermore, the coaches noted the importance of having common team goals and working together to accomplish them (i.e., Group Integration–Task), as well as having athletes share in the vision and in achieving the team's objective (Individual Attraction to the Group–Task). The results concerning the importance of being cohesive should not be unexpected since the Paralympic coaches in our study emphasized the importance of treating their athletes in the same manner that coaches treat elite athletes without a disability. This result has been found in other studies (Cregan et al., 2007; Tawse et al., 2012) and may be the mechanism that helped Paralympic coaches foster athlete autonomy and success (Banack et al., 2011; Cregan et al., 2007; Tawse et al., 2012).

Although Paralympic coaches described cohesion in the same manner as in nondisability sport, their comments indicated some unique differences that helped foster athlete autonomy and team success. Paralympic athletes face additional challenges in their daily lives compared with athletes without a disability and often rely more on their teammates to accomplish several daily tasks, including but not limited to those related to transportation and personal care. This is important to note since research has found that unequal opportunities and inaccessibility experienced by people with a disability has led to increased psychological distress and emotional trauma (Fisher & Price, 2003). Research has also noted that social support helped athletes cope with their impairment (Hanrahan, 2007). Taken together, based on these findings it may be suggested that cohesion in Paralympic sport can affect more than performance, providing athletes with autonomy and social support that can enhance their quality of life.

The Paralympic coaches in our study also highlighted the role of athlete support personnel as an integral part of the team. Coaches described how these individuals shared hotel rooms during trips and engaged in social activities with the athletes off the playing field, such as movie nights or team dinners. As such, coaches highlighted their importance in both task and social cohesion. To our knowledge, no research has addressed the role of athlete support personnel in team functioning in Paralympic sport and how these individuals can affect cohesion. However, research in nondisability sports has shown a positive association between an athlete's perception of the amount of social support and perceptions of task and social cohesion (Vincer & Loughead, 2010). Consequently, it is a fruitful area for future research.

Building Cohesion in the Paralympic Setting

Paralympic coaches in this study shared their team-building strategies that improved task and social cohesion. The coaches fostered both individual and team task cohesion by setting and monitoring individual and team goals. Multiple studies

in non-disability-sport contexts have demonstrated this to be the most frequent and effective strategy to build cohesion individually and collectively (e.g., Kyllö & Landers, 1995). More recently, a meta-analysis by Martin, Carron, and Burke (2009) also indicated that goal setting had a significant impact on the cohesion of nondisability teams. Based on the current study, we suggest that Paralympic coaches use goal-setting strategies in a manner similar to that of coaches of athletes without a disability to foster cohesion.

Paralympic coaches reported regularly communicating with their athletes. Communication served two purposes. First, it allowed coaches to keep track of athletes' progress toward their goals, which, as suggested herein, has a positive impact on cohesion. Second, it helped build a positive coach–athlete relationship. Past research has shown that frequent coach–athlete communications along with a positive relationship were important predictors of team cohesion in nondisability teams (Jowett & Chaundy, 2004; Jowett & Cockerill, 2003). As such, coaches in the current study who were able to foster good communication with their athletes believed it created a positive team environment that allowed for team cohesion to flourish among athletes with a disability. In fact, Jowett and Cockerill interviewed Olympic athletes and found that participants perceived communication as important to building positive relationships with their coaches. Our results were similar in that communication affected closeness (i.e., interpersonal liking, trust, and respect) and co-orientation (i.e., shared goals, beliefs, values, and expectations). Furthermore, Jowett and Chaundy performed a hierarchical multiple-regression analysis and found that positive coach–athlete relationships (i.e., the aforementioned closeness and co-orientation, and cooperative acts of interactions) accounted for 11% of the variation in task cohesion. In turn, coach leadership (i.e., use of democratic coaching style, social support, and positive feedback) accounted for 26% of team task cohesion. Teams where coaches maintain constant communication and positive relationships with athletes were more likely to experience higher levels of team cohesion, whereas disagreements and low levels of communication were associated to lower levels of cohesion (Martin et al., 2009; Turman, 2003).

In the current study, Paralympic coaches indicated that geographical distance between coaches and athletes hampered personal communications. Coaches used electronic communication methods such as e-mail, Skype, Black Berry Messenger, and iMessenger to remind athletes about their goals, keep track of their progress, and nurture coach–athlete relationships. As such, technology helped coaches with goal setting and maintaining positive relationships, factors that enhance team cohesion (Turman, 2003; Widmeyer & Ducharme, 1997).

In addition to goal setting and regular communication, the Paralympic coaches promoted many interpersonal activities that fostered social cohesion among their Paralympic teams. The main activities mentioned by the coaches were team dinners and going to movies. There is very little empirical support for interpersonal activities as a form of team building in the sports literature (Martin et al., 2009). More specifically, Martin et al found that virtually all nondisability team-building studies used task-focused protocols in an attempt to enhance cohesion. Given that the objective of team-building activities is to teach athletes to work toward a common goal, these activities are usually oriented toward enhancing performance and use task-related activities such as goal setting. However, as Martin et al. reported, social cohesion (a type of interpersonal relation) significantly affected

task-related team-building activities—although the effect was small ($ES = .21$). The size of the effect is not surprising given that the enhancement of social cohesion was not directly targeted in these team-building activities. However, the results of our study suggest that interpersonal forms of team building may be a beneficial strategy for increasing social cohesion in the Paralympic setting. Carron et al.'s (2002) meta-analysis found that social cohesion was positively related to team and athlete performance. Future team-building research is needed where interpersonal activities are specifically targeted with the objective of enhancing social cohesion.

Conclusions

Findings from this study highlighted some similarities and differences between coaching athletes with disabilities and the nondisability coaching literature. In particular, Paralympic coaches' perceptions of cohesion are similar to Carron et al.'s (1998) definition widely used in non-disabled-sport literature, and Paralympic coaches often built cohesion using task-related activities, goal setting, and regularly communicating with their athletes. Yet, interpersonal activities in the Paralympic setting present many unique challenges for coaches and athletes. Paralympic coaches described using interpersonal activities more than reported in the non-disabled-sport literature (cf. Loughead & Bloom, 2013). Participants of this study shared the complexity of planning a team dinner or movie night with their team. Issues related to transportation, accessibility, and accommodation must all be prearranged and planned. Coaches often rely on athlete leaders to help overcome these challenges by providing rides and/or helping to organize these events. These types of tasks affect team social cohesion (Martin et al., 2009) and highlight the unique characteristics of interpersonal cohesion activities in Paralympic sport.

Future Directions

The current study sampled coaches who worked with athletes with a wide range of impairments. It would be interesting to examine whether team-building activities would differ depending on the different impairments within teams. The study sought the perceptions of coaches. It would be equally beneficial to query athletes with a disability to determine how they perceive the importance of task and social cohesion and team building. Similarly, what types of team-building activities do athletes perceive as having the most benefit for performance and social development? Taken together, the results of this study can ultimately lead to more positive training and competitive environments for some of the world's most underserved athletes. We hope that those working with athletes with a disability will use the results of this study to better understand the value of building cohesion with this population and encourage the implementation of activities that will not only enhance the team environment but also facilitate the development of these athletes.

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Appendix: Interview Guide for Paralympic Coaches

Opening Questions (brief answers)

1. Describe your athletic career.
 - a. Sports played, level of competition, and role on the teams.
2. How long have you been coaching in your sport and other sports?
 - a. What is your motivation for coaching Paralympic sports?
3. Can you talk about your experiences with individuals (nonathlete) with a disability?
4. What is your outlook on coaching Paralympic athletes?
 - a. If applicable, how does it differ from coaching able-bodied sports?
5. Can you please describe and give an overview of the athletes you coach.
 - a. Disability range of athletes.
 - b. How do you learn about their disabilities?

Key Questions

6. What does cohesion mean to you?
7. How would you describe the group's dynamic within your team?
 - a. How often do they get together?
 - b. What types of activities do they do outside of training on field/court?
8. How is cohesion important in a Paralympic team?
 - a. How is it different than in able-bodied sport?
9. Describe your role as a coach with regard to building team cohesion?
 - a. What activities do you do to build cohesion within your team?
10. Does anyone have input in designing and implementing activities to build team cohesion?
 - a. If yes, who and how?
11. Give examples of activities designed to develop team cohesion
 - a. Social activities? Team objective activities?
 - b. How frequently would you conduct them?

Summary Question

12. From a coach perspective, what are the three most important qualities for successful team cohesion?

Concluding Questions

13. Is there anything else you would like to add?
14. Do you have any final questions or concerns?