Career Evolution and Knowledge of Elite Coaches of Swimmers With a Physical Disability

Kerry Cregan, Gordon A. Bloom, and Greg Reid

In the last decade there has been an increase in empirical research on coaches of elite able-bodied athletes, while coaches of athletes with a disability have generally been overlooked. Thus, the purpose of the current study was to address this oversight by examining the career evolution and knowledge of these coaches. Six elite coaches of swimmers with a physical disability were interviewed using an unstructured, open-ended interview format. Results revealed information pertaining to the coaches’ backgrounds, career evolution, and knowledge in training and competition. As well, all coaches stressed the importance of coaching their athletes as an elite swimmer as opposed to coaching a swimmer with a disability.

Key words: coaching expertise, disability sport, qualitative research

In the last decade there has been an increase in empirical research pertaining to coaching science and education (Gilbert & Trudel, 2004). Much of this research has focused on elite-level coaches of able-bodied athletes, most commonly at the university or Olympic level (e.g., Bloom, Crumpton, & Anderson, 1999; Bloom, Durand-Bush, & Salmela, 1997; Côté, Salmela, Trudel, Baria, & Russell, 1995; d’Arripe-Longueville, Fournier, & Dubois, 1998; Gilbert & Trudel, 2000; Vallée & Bloom, 2005). Despite this, there is a paucity of empirical research on coaches of athletes with physical disabilities; in fact, literature pertaining to their expertise is almost nonexistent (DePauw & Gavron, 1991). However, the need for empirical-based research on these coaches is undisputed, especially with the recent increase in sporting events and opportunities for athletes with a physical disability (DePauw & Gavron, 2005; Reid & Prupas, 1998). For example, the Paralympics have grown from 400 athletes in its 1960 debut, to approximately 4,000 athletes from 130 countries at the 2004 Athens Paralympics (International Paralympic Committee, n.d.). Within able-bodied sport in Canada, empirically based research on elite coaches’ knowledge has primarily been conceptualized using the Coaching Model (CM) of Côté et al. (1995). The CM is a theoretical framework for establishing connections between the accumulated knowledge on how and why coaches perform as they do. The CM suggests that coaches begin by constructing a mental model of their athlete’s or team’s potential. This mental model dictates how the coach applies the primary components of organization, training, and competition to their athletes. This model is influenced by three peripheral components: coach’s personal characteristics, athlete characteristics, and contextual factors. Coaches integrate these into their operational strategies to determine which of the three primary components must be used to maximize the athlete’s and team’s development. Creating a successful environment often requires adaptations to multiple contextual factors, such as training facilities and conditions, parents, financial resources, and administrative responsibilities (Côté et al., 1995; Davies, Bloom, & Salmela, 2005). The CM has been applied to research in individual (Côté et al., 1995), team (Vallée & Bloom, 2005; Gilbert & Trudel, 2000), and combative sport settings (Moraes & Salmela, 2001) of elite coaches of able-bodied athletes.

While the CM has never been applied to disability sport research, there is reason to believe it would be

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beneficial. One might argue that coaching an elite able-bodied athlete is similar in many respects to coaching an elite athlete with a disability. Coaching athletes with a disability requires many of the same skills as coaching able-bodied athletes, such as helping athletes set realistic goals, developing reasonable skill progressions, and providing consistent and appropriate feedback (DePauw & Gavron, 2005). For example, elite athletes with a physical disability must also be challenged and motivated in practice and competition. Although their disability may limit them physically, mentally they are the same as elite able-bodied athletes and, thus, should be coached accordingly (DePauw & Gavron, 2005).

Although similarities between coaching able-bodied athletes and athletes with a disability have been identified, researchers have alluded to numerous circumstances and considerations specific to coaching athletes with a disability, such as understanding the nature of the disability or necessary biomechanical adaptations (DePauw & Gavron, 2005; Lee, 1994; Quade, 1999; Sherrill, 1993). Moreover, the need for individualized training plans is important to meet each athlete’s condition (Moeller, 1999). All coaches must be aware of their athletes’ living accommodations, transportation, medical conditions, and nutritional demands to create an optimal stress-free training situation, but their importance may be magnified in disability sport (Quade, 1999). While self-coaching is common in disability sport, (Bradbury, 1999; DePauw & Gavron, 2005; Liow & Hopkins, 1996), an investigation of trained coaches is warranted.

In sum, although researchers have suggested numerous guidelines for coaching an athlete with a disability (Bradbury, 1990; DePauw & Gavron, 2005), there are relatively few empirical studies on the knowledge of elite-level coaches of athletes with a disability (DePauw, 1990). Using Côté and colleagues’ (1995) CM as the conceptual framework, the purpose of this study was to identify the career evolution and knowledge specific to coaching elite-level swimmers with a physical disability.

Method

Participants

Six elite-level coaches of swimmers with a physical disability were interviewed. The coaches were identified by a member of the board of directors of the Canadian Paralympic Committee and a prominent executive from Swim Canada. All participants were the current head coach of their programs, had at least 10 years of head coaching experience, including at least 3 years with swimmers with a disability (SWAD), and had developed at least one athlete who had won a gold medal at the Paralympics or World Championships. All participants were men, likely due to the larger population of Canadian male coaches in swimming. They were contacted by e-mail and informed of the nature of the investigation and invited to participate. All agreed to participate.

According to the International Paralympic Committee (n.d.), SWAD are ranked on a scale of 1–13 with other athletes who have a similar disability level. S1 represents athletes with the most severe disabilities (e.g., quadriplegic), and S11–S13 those with the least severe disabilities (e.g., visual impairments). Five coaches in the present study worked with athletes ranging from S5 to S13 (i.e., higher functioning athletes). One coach worked with athletes ranging from S2–S10. Additionally, it should be noted that Swim Canada is an organization governing both able-bodied athletes as well as those with a physical disability. Swimmers with a physical disability are eligible to receive funding and aid from Swim Canada, to train and use the same facilities as able-bodied swimmers, and to have access to the same coaches as able-bodied swimmers (Lee, 1994). Table 1 summarizes participants’ history and accomplishments.

Instrument

A four-part interview guide with open-ended questions was created specifically for this study. The first part, an introductory question (e.g., “How did you get involved in disability sport?”), was designed to initiate discussion and preface the main topic. The second part consisted of six key questions developed from the Côté et al. (1995) CM. These focused on the coaches’ knowledge, including organizational components, such as goal setting, issues involved in training, their role in selection, and factors and considerations specific to coaching SWAD. The third part consisted of a summary question that tied together the most important points (e.g., “What are the key elements of coaching swimmers with a physical disability?”), and the fourth part included a concluding question that gave participants the opportunity to add information. Interview probes and follow-up questions were implemented to add depth and clarity to participants’ responses, pursue the central themes discovered, elaborate on the context of answers, and explore the implications of their responses (Rubin & Rubin, 1995). Each interview lasted between 60 and 120 min and took place at a mutually convenient location in Montreal, Toronto, Winnipeg, or Vancouver, Canada.

To put the participant at ease each interview session began with an informal conversation between the researcher and participant (Fontana & Frey, 1994). Then, each participant read and signed a consent form and completed a demographic questionnaire. The principle investigator informed the participant that the interview would be audio recorded and a full verbatim transcript
would be sent to him for approval and editing before analyses. Audio recording began at this point. The participant’s confidentiality was protected by using a coding system replacing each name with a number (i.e., #1–6); also, any potentially identifying information (e.g., name of coach, home town) was replaced or disguised.

Data Analysis

The procedures outlined by Côté, Salmela, Baria, and Russell (1993) were used to analyze the interview data after the transcripts were returned to the primary investigator. This method consists of four steps: creating meaning units, tags, properties, and finally categories.

The transcripts were divided into 541 quotes called meaning units (MU), which were separate pieces of text containing one idea, concept, or piece of information (Tesch, 1990). At the same time, each MU was given a tag based on its content. A tag was a descriptive name for the MU. A total of 57 tags emerged from the data. Following this, the tags were listed, compared, and then combined into distinct higher order groups called properties. A new name or tag was given to each newly formed property. Properties were named according to the common features their tags shared (Côté et al., 1993). In this stage, the 57 tags were grouped into 12 properties. The final stage of analysis involved regrouping the properties identified in the previous stage into broader conceptual categories. The data were examined until saturation was reached and no new levels of information emerged (Côté et al., 1993). By the final stage, the 12 properties had been organized into four larger categories.

**Trustworthiness**

The trustworthiness of this analysis was increased by following the suggestions proposed by Lincoln and Guba (1985). First, the researcher used prolonged engagement to learn and become familiar with the participant’s culture and build trust with the participant. In this study, the principal investigator had extensive experience as a coach and athlete at varying swimming levels and had worked extensively with individuals with a physical disability. Thus, our interviewer was familiar with the culture and the individuals involved in our study.

Second, persistent observation was used to identify relevant elements of the participant’s responses and pursue them to ensure the interview brought about all pertinent information (Lincoln & Guba, 1985). In this study, the coaches were probed on relevant points to ensure all fundamental issues related to coaching evolution and knowledge were examined.

Third, peer review was used to improve the credibility of this study (Lincoln & Guba, 1985). This process took place independently of the principal researcher. A peer assistant examined 25% of the MUs created from the data and matched each with a tag previously established by the researcher. The peer assistant matched the MUs with the tags based on what he or she felt were the most appropriate combinations. A reliability rate of 83% was reached for this analysis. After a discussion between the researcher and the peer assistant, it was agreed that three tags in question would be combined due to the similar, if not repetitive, nature of each. This procedure

<table>
<thead>
<tr>
<th>Table 1. History and accomplishments of each head coach</th>
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<tr>
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<tr>
<td>Number of years coaching</td>
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<tr>
<td>SWAD &amp; AB</td>
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<tr>
<td>SWAD: 12</td>
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<tr>
<td>AB: 19</td>
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<td>SWAD: 3</td>
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<tr>
<td>AB: 25</td>
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<td>AB: 6</td>
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<tr>
<td>SWAD: 6</td>
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<tr>
<td>AB: 15</td>
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<td>Classification of athletes coached</td>
</tr>
<tr>
<td>S5, S6, S8, S9, S10</td>
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<td>S10</td>
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<td>S13</td>
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<td>S13, S7</td>
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<tr>
<td>Highest accomplishment of SWAD athlete coached</td>
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<td>Multiple medals at Paralympics</td>
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<td>Gold medalist Paralympics</td>
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<td>Petro Canada Coaching Excellence</td>
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<td>Swimming Canada coach of the year (SWAD)</td>
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<td>Swimming Canada coach of the year (SWAD)</td>
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*Note. P1–P6 = Participants 1 through 6; SWAD = swimmers with a disability; AB = able-bodied swimmers.*
also took place when the properties and categories were created. The peer assistant classified the 57 tags into 12 properties. A 91% rate of reliability was achieved. All classification discrepancies between the principal researcher and the peer assistant were discussed until a common understanding was reached. A reliability rate of 100% was then achieved for the categories.

Fourth, member checks were used to allow participants to verify the researchers’ understanding of the information they provided (Lincoln & Guba, 1985). In this study, member checks occurred on three different occasions. The first took place at the end of each interview during a debriefing session. At this point, the participant had the opportunity to add or alter any answer or idea communicated during the interview. The second occurred when the participant received a full verbatim transcript of the interview. At this time, the participant had the opportunity to clarify, add, or eliminate any portions of the interview. The final check consisted of sending the participants a summary of the results in which they were asked to state any concerns, questions, or comments. Of the 6 participants, 5 did not change anything, and 1 did not reply.

**Results**

A total of 541 MUs resulted from the six interviews. From this, four higher order categories emerged from the data, which described the coaches’ career evolution and knowledge. The categories were called coach background and characteristics, training, competition, and contextual factors. Table 2 shows a breakdown of subcomponents within each category. Categories are explained in the following section.

### Coach Background and Characteristics

Coach background and characteristics included elements of the coaches’ interpersonal characteristics and beliefs, their background and experiences in aquatics, and how they got involved in coaching both able-bodied and SWAD. It was the basis for understanding them as coaches and how they got there. This category was composed of three properties: coaching background/experience, coach attributes, and coaching style.

Coaching background/experience included aquatics, their involvement in coaching able-bodied and SWAD, and their view on coaching as a profession. The participants had diverse experiences in aquatics. One was a nationally and world-ranked Paralympic swimmer, while the others were all able-bodied swimmers. Of this group, two competed at the national level, one competed just below the national level for another country, and one swam recreationally. Although their athletic experiences and accomplishments varied, all participants began coaching able-bodied swimmers:

I’ve always coached able-bodied athletes. I went from starting coaching in [another country] to coaching in [name of Canada].

<table>
<thead>
<tr>
<th>Categories and properties</th>
<th>Total</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>P5</th>
<th>P6</th>
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<tr>
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<td>5</td>
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<td>14</td>
<td>7</td>
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<tr>
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<td>7</td>
<td>5</td>
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<td>7</td>
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<td>4</td>
<td>13</td>
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<td>1</td>
<td>8</td>
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<tr>
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<td>9</td>
<td>12</td>
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<td>11</td>
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<tr>
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<td>8</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td>16</td>
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<tr>
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<td>4</td>
<td>10</td>
<td>8</td>
<td>7</td>
<td>14</td>
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<td>2</td>
<td>5</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Competition</td>
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<td>3</td>
<td>3</td>
<td>4</td>
<td>9</td>
<td>15</td>
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<tr>
<td>Pre- and during competition/race</td>
<td>64</td>
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<td>1</td>
<td>10</td>
<td>7</td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td>Postcompetition/race</td>
<td>11</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Equality between SWAD &amp; AB athletes</td>
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<td>5</td>
<td>12</td>
<td>23</td>
<td>24</td>
<td>20</td>
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<td>Athlete characteristics</td>
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<td>4</td>
<td>11</td>
<td>1</td>
<td>4</td>
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<td>87</td>
<td>120</td>
<td>120</td>
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</tbody>
</table>

**Note.** P1-P6 = Participants 1 through 6; SWAD = swimmers with a disability; AB = able-bodied swimmers.
dian city). Then I came to [name of Canadian city] and I started coaching for a couple of years. I had a bit of a break, and then I went to work for the school board as a swim coach—all with able-bodied swimmers. (P5)

Even coach P6, who was a former Paralympian, began coaching able-bodied swimmers because he was involved as an athlete with an integrated program:

I had no intent on coaching as a career. I started coaching at the club that I swam for because I felt I had a debt of gratitude, since it had done so much for me. I had just finished my university degree, and I did not get accepted into medical school. I had a year to do what I wanted to, and they needed a swim coach [in my home town]. I went back and started coaching [near my home town]. The rest is history. (P6)

Furthermore, all participants did not intend to coach SWAD. They coached able-bodied athletes until a SWAD arrived at one of their practices:

I don’t think anybody goes out and intentionally decides they’re going to become a coach for swimmers with a disability. I think the kids show up, and you do your job. I’m sure if you asked any coach, they would tell you that it was never their intention to go down this road. It just happens. (P3)

Although participants did not initially see coaching as their career, most expressed an extreme level of enjoyment and love for the sport of swimming and the profession of coaching:

I do it because I love it. I’ve stayed with swimming; I’ve stayed around the pool. I’ve been in swimming ever since I was 4 or 5 years of age. I can’t stay away from it. I can’t not coach. (P5)

Coach attributes encompassed key qualities possessed by the participants. One such common coaching quality was confidence each had as a coach:

One of my athletes had to do a speech on me two weeks ago, because I had won an award. He said I bring him confidence. When he moved from his old club to my program, he knew that he was with the best coach in [name of city]. There may be a coach better than me in the world, but for what he could do, I was the best. (P2)

Participants’ qualities specific to coaching SWAD accounted for the majority of coaching attributes. Building autonomy was important for ensuring that SWAD were able to take part in everyday training as well as improve their lifestyle:

We have an obligation as coaches and as providers of swimming services to ensure that we provide them with the best service possible. If you can get a person who can go from not swimming at all to swimming a mile, you’ve given them that ability, then you’re successfully done what you said you were going to do—empowered them, taught them how to be autonomous, and given them an improved lifestyle, because what they are doing is only going to help them in the end. (P3)

In addition to building autonomy, several participants discussed the importance of creativity when coaching SWAD athletes. The following is a representative quote:

Sometimes with the disabled kids, depending on the disability, you have got to be a little more creative. There is no manual that tells you exactly how to coach a swimmer with no lower arm; you have to think of how to do it on your own. You have to be more creative. (P4)

Coaching style included participants’ interaction and the coaches’ relationship with their athletes. The coaches in this study possessed similar coaching styles. Although some were more authoritarian while others were “laid back,” all felt that at different times and with different athletes varied coaching styles were required to create an optimal learning environment:

Some of them you need to stand over and stay on them. One athlete can do his own thing. He doesn’t require a lot feedback. But then another guy, he tends to get lost if I don’t give him feedback. So I’ve come to realize over a period of time that I have to be more hands on and be over the top for some swimmers, but not for others. (P1)

Possibly unique to coaching SWAD athletes, were the coaches’ experiences of a shared relationship, in
which both the coach and athlete had equal input into the coaching process. This relationship was the result of the athlete knowing his or her disability more than the coach:

When I first started coaching this SWAD, I think very much so [had a sharing role in the coach-athlete relationship], because I really wasn’t sure what to do with her. She set me straight on a few things that I was unsure of. (P4)

**Training**

Training included how to break down the training season, the intervention style and different types of training implemented into the program (e.g., physical, technical, and mental), the participants’ goal-setting process, and accommodating athlete’s individual needs. This category comprised the properties of training routines, training accommodations, and goal setting. Training routines encompassed how the coach planned the season and the different types of training the athletes endured. All coaches cited a similar process of breaking down the season:

We go through a cycle of about 12 to 15 weeks. We try to start the process where it’s general development; we call it base training. After that, it’s training in preparation for competition, and then we have a competition, and then transition where they stay active but they don’t swim as hard. And then we go back and start over. We go through this maybe three to four times a year. (P2)

As a result of coaching both SWAD and able-bodied athletes concurrently, two distinct issues with regard to training accommodations emerged: how the coach adjusted training sessions to meet each athlete’s general needs, and how the coach modified practices to accommodate SWAD varying ability levels. For instance, all 6 participants noted that swimming was an individual sport, and, as such, each athlete possessed individual needs. These needs surfaced in different training demands, often characterized by the stroke they swam:

I have five lanes here and every lane is different. I have distance swimmers who are women that don’t have nationals, so I give them sets. The boys that go to nationals have different sets. I have the middle distance, like the flyers, the backstrokers, and IM’ers, they have their set. After that I have the sprinters. So every lane is different. (P2)

In addition to general training demands, coaches also cited issues specific to SWAD. For example, coaches often accommodated varying abilities by modifying the distance, interval, type, and location of training:

Where we do need to modify is with the S5 girl that we have; she’s considerably slower. So we put her against the wall, and she swims up and down almost hugging the wall. She kind of has her own very narrow lane. That’s what works for her. To try and put her in a circle with five or six other people, passing her every 100 m, doesn’t help anybody, including her. So she basically half’s what the rest of the group does. (P4)

Goal setting involved the goals coaches’ had for themselves, their athletes, their club, and their process for setting these goals. Of significance was each coach’s view that setting goals for SWAD athletes was no different from that of able-bodied athletes, for example, “the individual goals that we set is [sic] the same for our athletes with a physical disability, absolutely. If you’re for integration, then you have to be that way.” (P6) Of further interest was the commonality between the participants’ goals in all three domains. For example, most coaches discussed reaching their potential as a coach and enabling their athletes to reach their potential. The participants set the goal of generating a welcoming environment conducive to all ability levels:

For myself, my goals are to make this team great for the kids. We have a lot of swimmers that come here because they can’t go elsewhere. Not many coaches are there, ready to coach people with a disability. It’s not that they don’t want to, it’s just I think there is a bit of a fear still, especially with swimmers with a disability in the lower classes. So I’m here for them, basically to be welcoming to them and to make it sort of a family situation so they can feel comfortable. (P5)

Of particular importance to the goal-setting process was each athlete’s individuality. One participant stressed the importance of knowing the athlete’s internal make-up before setting goals:

Well, we’re all very unique, regardless of whether there is a disability or not, and
you have to get to know the athletes first and see where they want to go in swimming. For me, I try to get to know them as a person first, in order for me to understand the athletes and where they’re going and where they’re coming from. Then, what they want to achieve in their career as a swimmer. (P5)

**Competition**

Competition referred to the key tasks that occurred prior to, during, and after competition, relating to both the coach and athlete. It included the properties of pre-, during, and postcompetition/race. Each coach slightly adjusted his prerace routines based on his athlete preferences. Some athletes preferred to discuss their race plan with their coach, while others distanced themselves from everyone. Further still, certain athletes required a lot of feedback prior to the race, whereas others required nothing. The only similarity was that each routine was based on the individual, and it was the coach’s responsibility to adapt to each athlete:

Three of my swimmers like very specific things to do for warm-up. One girl is actually pretty good at knowing how she should be swimming her races, so she doesn’t get a lot of prerace one-on-one. Another girl really likes to have that interaction, to get herself set up and pumped for the race. What I do is tell her: “Ok, let’s not get too bogged down on this, here’s what we want to do, just go ahead and do it. Don’t over analyze it.” One guy is not very good actually at implementing a race plan, so I have to make sure that I’m very specific, because the moment I slip, he’ll just go all out for as long as he can. In the meet setting it becomes individualized for everyone’s needs. (P1)

With regard to coach-athlete communication before the race, coaches felt each athlete should discuss the race evolution, rather than being told how to swim it, as evidenced in the following quote: “Usually what happens before competition is rather than me telling them what to do, I ask them to tell me what they see happening.” (P3)

During their athlete’s race, the participants focused on aspects such as stroke analysis, split taking, and race execution, which varied from athlete to athlete. Coaches often described their role as an “analyzer.” They would watch for aspects of their athlete’s stroke or race strategy that had been practiced in training and see how it was implemented in the race:

Just taking splits, watching strokes, stuff like that. And for each of them they have their technical keys, too. So for one girl, she’s got cerebral palsy, most of the involvement with the disability is on the right side. So she has to get herself rolling and being balanced and getting her arms underneath on her freestyle. With this one guy it’s making sure that he is getting his arms deep. Usually when he is going too hard, his arms start splashing, pulling water inefficiently. With another girl, it is more head position, keeping her head still on the freestyle and making sure that she stays settled down as well. (P1)

Postrace, athletes took part in one of two routines: warm down followed by coach feedback or vice versa. The order depended on the outcome of the race and the athlete’s personality and preferences.

SWAD athletes were integrated into able-bodied competitions at the regional, provincial, and national level, while international competitions were held separately. To race at these competitions, SWAD had to achieve qualifying standards. However, qualifying standards were separated into two groups, one pertaining to able-bodied athletes and one for SWAD athletes (based on the athlete’s classification level). Most participants believed SWAD should compete as an able-bodied athlete if they could make the standard. “If they can swim able-bodied, they swim able-bodied. If they’re not fast enough, then they’ll swim SWAD. Otherwise, they’re integrated.” (P6)

**Contextual Factors**

While the previous categories demonstrated the similar way participants interacted with SWAD and able-bodied athletes, the current category contained information specific to coaching SWAD. The properties that made up this category were special considerations, SWAD context, and equality between SWAD and able-bodied athletes. Although participants believed coaching SWAD was similar to coaching able-bodied athletes, certain differences existed. For example, SWAD coaches had to learn about accessibility, the different types of disabilities, and the best ways to communicate with parents and support staff. With regard to accessibility, coaches learned about the user-friendliness of training facilities, competition sites, and hotel and travel accommodations. They often arrived early at the competition site to ensure it was accessible for their athletes.
We have to take accessibility into consideration when we’re getting vans—how many wheelchairs are we going to have in our vans. Or when we go to restaurants, are they wheelchair accessible, or do we need to look for another restaurant? We have to make sure we are staying at a hotel that has an elevator with rooms that are wheelchair friendly. Vans, restaurants, all of that stuff, we’re going to have to make sure are accessible. (P3)

Accessibility also referred to the social environment. It was crucial for coaches to create an atmosphere that enabled SWAD acceptance within an able-bodied club:

You also have to make sure there is a cultural environment that is accepting of these kids. You have to imagine what it is like for a young female swimmer who has a physical disability. That is past being overweight and being sick. What you are doing if you are showing everybody your disability and saying there is a level of acceptance that you have come to and that you are prepared to show everybody. If a culture is not accepting of it, you just potentially destroyed her, because that athlete is not coming back. (P6)

Another factor that emerged was the unique relationships participants formed with SWAD parents. Specifically, SWAD parents were a source of information and providers of transportation for their child-athlete:

With these swimmers, you rely a lot on the parents. The only time we go away is in March for a training camp, and that is the only time that I get to spend a lot of time with these swimmers. Before I go, I do my homework so I know what I will need in terms of medication, sleeping patterns, and what makes them tick. To do this, I have a lot of contact with my parents to find out what’s what and who’s doing what and what they need to do and who likes to sleep in, etc. I rely on the parents for this information. (P5)

In addition, due to restrictions imposed by their disability, several lower level athletes depended on their parents to provide transportation to and from training and competitions. Participants indicated that certain SWAD athletes’ participation would have been nonexistent without this parental provision:

A lot of these kids are depending on Mom and Dad to get them to practice and to get them home from practice. For some there would be no way of getting to practice without their parents. So a lot of that goes with this part of my job. You’re not just working with the kids, but you’re also working with the parents. (P4)

All participants indicated that knowledge of their athlete’s disability was crucial for coaching success:

If you’re coaching a swimmer with a disability it’s important to have a good knowledge of what the disability is, that way you can make the distinction between what they can’t do because of the disability or because they chose not to. It can be a fine line figuring out how far you can push the athlete, but you have to understand the disability so you can make the right decisions. (P1)

As noted by the coaches, a great challenge when coaching SWAD was issues related to athletes of lower classification levels, such as those with severe coordination problems in all four limbs, those with little or no use of their legs, trunk, or hands, or those who were completely blind. It was at these levels that coaching differences between SWAD and able-bodied athletes were perceived. Interestingly, relatively few athletes at this level exist in Canada, and, as such, most participants did not coach an athlete at this level. However, all coaches felt that athletes with more severe disabilities required more space, more time to finish sets, and more individual attention. As a result, such requirements could present coaches with several coaching challenges:

Athletes with lower level disabilities require more space. A blind swimmer essentially needs the lane to themselves, [sic] otherwise there can be trouble. And then people with greater disabilities, they swim slower; they need more time to get sets done, they need more one-on-one attention just to make sure they are doing things properly. It can be a bit of a challenge to be able to have the manpower to make it work and to be able to have the resources financially to rent the pool time, to make sure you can have a dedicated lane for swimmers with lower disabilities. (P3)

Perhaps the essence of the entire study was the property of equality between SWAD and able-bodied
athletes: all coaches felt that coaching SWAD, with the exception of the disability, should be no different from coaching able-bodied athletes:

I think a lot of people have to get over the idea of “Oh my Goodness!” “What am I going to get myself into if I coach a swimmer with a disability?” The swimmer, the pool, it’s a swimmer with one leg, what is the difference other than one leg? Figure it out and get on with it. You are a coach and coaching is what you do. Coaching a swimmer with a disability is really no different than coaching an able-body swimmer. (P1)

Despite this, many felt SWAD competition was not at a level comparable to able-bodied athletes. Participants identified a current lack of depth in competition, which resulted in the same SWAD winning multiple events at major competitions, with little upward pressure on the top Paralympians to improve:

When you are talking about disabled kids being competitive in different events, I think that is largely because the world standard in disabled swimming is so low. Somebody who is a decent swimmer can be competitive in free, back, fly, or IM. It is not because they are good at all of them; it is just that there is nobody better than them. The fastest in the world is not the same as it is with able-bodied swimmers. (P4)

Despite this lack of depth, participants acknowledged SWAD performances as examples of athletic excellence. Still, there are ways to improve equality between SWAD and able-bodied athletes:

People would say that Sugar Ray Leonard is one of the best boxers in the world, but he’d get killed by Mike Tyson, so we don’t do that. Yet we appreciate the fact of how great he is. The same holds true with disability sports. We recognize that someone with one leg can’t compete against somebody with two, but what they do is still great. But the world record for the S9 100 freestyle for men is 57. That’s not fast, but it is fast if you only have one leg. And I think that’s important for coaches and the general public to realize. The difficulty for SWAD swimming is that it’s in the same light as able-bodied swim-

Discussion

The purpose of the current study was to reveal the career evolution and knowledge of elite coaches of swimmers with a physical disability. The results of the inductive analysis revealed that despite varied athletic backgrounds, all participants followed a similar path to become an elite-level coach. These findings were in agreement with past research on expert team sport coaches’ career development, where it was found they were typically successful, but not superior, athletes who had begun coaching at the novice level before progressing to their current elite positions (Miller, 1996; Schinke, Bloom, & Salmela, 1995). Additionally, the current study supported the findings of DePauw and Gavron (1991) that few coaches of athletes with a disability were disabled themselves; also, most had coached able-bodied athletes longer than athletes with a disability.

The current study also examined the philosophy, coaching style, and personal qualities that shaped coaches of SWAD. Participants identified building autonomy as an essential characteristic in coaching athletes with a physical disability. In doing so, coaches felt their athletes were better able to participate not only in sport but in all aspects of life. Furthermore, the data revealed these coaches were creative and in constant pursuit of knowledge. Past research has identified similar qualities of expert coaches (Bloom & Salmela, 2000; Schinke et al., 1995; Vallée & Bloom, 2005), although the path to acquire knowledge differed with the current sample of coaches. Coaching manuals, clinics, and seminars were not as abundant in disability sport and, therefore, did not provide coaches with the same resources as able-bodied sport coaches. This may also help to explain why coaches identified creativity as a vital characteristic for coaching SWAD. Additionally, the current coaches said that both the athletes and parents were vital sources of knowledge acquisition. Current findings underscore the need for coaching resources in disability swimming.

The training category highlighted the importance and value of a coach’s intervention style. Participants identified using a wide spectrum of coaching styles that they implemented at different times to accommodate their athletes’ needs and preferences. An autocratic style was used with certain athletes who had difficulty following the focus of the training set, whereas other swimmers required a more democratic style as a result of wanting more control over how they trained. This finding supported the Côté et al. (1995) research on
intervention style of elite gymnastic coaches, whereby the coach adjusted leadership styles to both their personality and athlete needs.

Along the same line, all 6 participants of the current study highlighted the importance of accommodating athletes’ individualized training needs, including preferred stroke (i.e., butterfly, breast stroke, freestyle) and distance (i.e., sprint, middle distance, or long distance), as well as limitations imposed by the different disabilities. Depending on the level of disability, certain athletes were unable to participate in the same training regimens as their able-bodied teammates. Coaches adapted their workouts by adjusting the training interval, minimizing the training distances, or sometimes changing the training location. Similarly, research on expert Canadian coaches of able-bodied athletes identified the importance of accommodating the individual’s needs during training (Côté et al., 1995; Durand-Bush, 1996). Coaches of SWAD accommodated their athletes’ needs, yet did so with the additional objective of creating an environment that allowed participation in training to occur regardless of physical limitations. In sum, although coaches in the current study performed many of the same tasks in training as coaches of elite able-bodied athletes, they were often required to modify their training techniques based on their athletes’ disabilities and needs.

The current results revealed that coaches of SWAD identified the importance of setting realistic goals for themselves, their athletes, and the team. Not surprisingly, research on both team and individual sport coaches of able-bodied athletes has also identified goal setting as an important coaching component. Goals were motivated by the coach’s vision of the athletes’ potential, which served as a crucial variable in achieving team success (Côté & Salmela, 1996; Vallée & Bloom, 2005). Possibly unique to the present study, all coaches cited the goal of creating an environment conducive and welcome to all ability levels, likely a result of the integrative nature of swimming in Canada, where both able-bodied and SWAD train together.

The competition category included tasks that occurred prior to, during, and after competition for both coaches and athletes. Many of the results from the current study were similar to those on expert coaches of able-bodied team sport athletes (e.g., Bloom, 1996; Bloom et al., 1997; Gilbert & Trudel, 2000). For example, the current participants implemented individualized prerace routines to accommodate each athlete. A difference was that SWAD coaches also had to adjust to their athlete’s different mobility levels. Participants’ perceptions of their behaviors during and postcompetition also revealed many similarities with elite coaches of able-bodied athletes. For example, the current participants mentioned the importance of controlling their emotions during the competition and implementing postrace strategies to deal with the athletes’ performance and outcome (Bloom, 1996; Bloom et al., 1997).

While results of the previous three categories identified many similarities between coaches of SWAD and able-bodied athletes, the fourth category, contextual factors, revealed many circumstances and considerations exclusive to coaches of SWAD. These coaches had to consider the user-friendliness of training facilities, competition sites, and travel accommodations prior to each swim meet. They often arrived early at the competition site to ensure the location was wheelchair accessible or to notify competition managers that SWAD would be attending the swim meet. Accessibility also pertained to the social environment. Specifically, it was vital for coaches to create an atmosphere that facilitated SWAD acceptance, so the athletes were at ease with their physical appearance, which often differed from their able-bodied teammates. These results lend empirical evidence to previous qualitative research on acceptability (Stewart, 1999), especially the aspect of creating a welcoming environment.

Participants also discussed their relationship with parents and support staff, including their role of liaison between therapist and athlete. All coaches accepted responsibility for what happened in and out of the water with their athletes. Coaching literature within disability sport has alluded to the importance of coaches forming a sound relationship with support staff in which the coach works closely with both the occupational and physiotherapists to obtain a comprehensive understanding of their athletes (“Coaching Athletes With Disabilities,” 1999). Participants also identified the relationship with their athletes’ parents as a crucial for achieving coaching success. Parents provided valuable information pertaining to the athlete’s disability, such as medications and eating patterns. Furthermore, parents provided transportation to and from training and competition venues for lower class athletes (S1–S5), whose participation would otherwise be impossible (Quade, 1999). The roles of parents, coaches, and athletes in able-bodied sport is complex, revealing some positive (i.e., financial, social support) and negative (i.e., stress) aspects (Bloom, 1985; Côté, 1999; Hellstedt, 1987; Kirk et al., 1997). Our results mirror these findings, although coaches in our study generally perceived parents as fundamentally supportive in all stages of athlete development. Nonetheless, future research could investigate the impact of the coach-parent relationship on coaching success in disability sport.

Participants of the present study noted the majority of SWAD in Canada were of the higher classifications levels (S6–S10) and in these cases felt that coaching was similar to coaching able-bodied athletes. However, while few swimmers in lower classifications exist, all
participants noted that at these levels greater coaching differences occurred. For example, swimmers of lower disability classes required more pool space, more individual attention, and more specific training equipment and facilities. These findings support previous research that found the more severe the disability the more individual coaching attention was required for the athlete (Blair, Kohl, & Goodyear, 1987; Marti, Abelin, & Minder, 1988; Liow & Hopkins, 1996).

Although self-coaching in swimming was not part of this study, it was interesting that there was no mention of it. This is possibly due to the integrative nature of Canadian swimming. Participants’ programs were open to able-bodied athletes and SWAD alike, in which coaching, training, and funding were similar for both categories of athletes. These findings were in accordance with past research on integrating elite athletes with a disability into high performance programs (DePauw & Gavron, 2005; Lee, 1994). For instance, Lee found the greatest successes in disability sport were achieved when an athlete with a disability accessed the expertise of a high-performance coach. Perhaps self-coaching in disability sport is beginning to disappear, as it has historically been viewed as problematic (Bradbury, 1999; DePauw & Gavron, 2005; Liow & Hopkins, 1996).

Along the same line, all participants felt that SWAD should compete with able-bodied swimmers. Specifically, if SWAD made the qualifying standard to compete at an able-bodied competition, then they competed with able-bodied swimmers. However, integrated competition is not always possible, nor is it practiced at major competitive events, such as World Games and the Paralympics (Steadward & Foster, 2003). Also, the coaches felt SWAD competition overall was not yet at a level comparable to able-bodied athletes. Participants believed disability swimming needed a greater competitive population to rectify the current lack of depth and minimal upward pressure placed on top Paralympians to improve. These findings were in accord with past research that identified more intense training regimes and a greater number of competitors as a means to improve competition in disability sport (DePauw & Gavron, 2005; Moeller, 1993; Sparling, Wilson, & Rate, 1987).

Interestingly, Côté and colleagues’ (1995) also cited contextual factors as a major influence on elite-level coaching. In their case, financial resources, training resources, family context, and competitive environments were examples of contextual factors. Similarly, the Davies et al. (2005) examination of stressors affecting an elite coaches’ job satisfaction revealed that contextual factors such as financial resources, administrative responsibilities, and relationship with athletic directors affected a coaches’ job satisfaction and overall goal of creating an optimal training environment. While the current results also revealed the importance of contextual factors, it did so with a particular emphasis on coaching SWAD. More specifically, knowledge of the disability, transportation, equality, and dealing with parents and support staff were vital challenges to SWAD coaches. Because of this, one might argue that contextual factors in the present study may have had a greater impact on the participants’ coaching process than in able-bodied coaching (i.e., Côté et al., 1995; Davies et al., 2005). The athletes’ disabilities required coaches to adapt in all aspects of their profession, including organizing and planning, training practices and regimes, and competition routines. Despite the constant challenge of adapting to contextual factors associated with their athletes’ disabilities, all SWAD coaches enjoyed what they were doing. They also noted that when coaching an athlete with a disability it was important to remember one thing: the individual was an athlete first and disabled second; thus, the athlete should be coached as an elite swimmer rather than as a swimmer with a disability.

References


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