

A new view: exploring positive youth development in elite sport contexts

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The purpose of this study was to investigate the presence of the setting features within elite youth sport contexts from a coach's perspective. Coaches are key aspects to programme delivery and in the physical, psychological and social development of youth. Coaches of elite youth sport participants in particular have the responsibility of developing talented young people and, hence, play an important role in their lives and personal development. A qualitative triangulation approach including interviews and observations was used in the data collection and in the analysis of the practices and techniques of five elite youth sport coaches. Based on these findings and by amalgamating previous knowledge, a new view emerged outlining three key elements: the existence of an appropriate training environment, the provision of opportunities for physical, personal and social skill development, and the presence of supportive interactions. These elements are discussed as a framework for promoting positive youth development within elite youth sport settings.

Keywords: youth sport; elite; coaches; positive development

With approximately 2.2 million Canadian children and youth involved in organised sport (Corbeil 2000), it is an important context in which to study youth development. Previous research has suggested that sport programmes have the ability to: (1) improve physical health, (2) increase psychosocial development, and (3) enhance the development of motor skills (Côté and Fraser-Thomas 2007). Sport has the potential to serve as an outlet for young people to develop positive personal characteristics such as leadership and responsibility (Mulholland 2008). In fact, it has been recently suggested that 92% of Canadians believe that sport has the potential to be a positive avenue of growth and development for children and youth (Mulholland). With the lure of financial reward and increased popularity, more children and youth than ever are opting to specialise in a single sport (Gould and Carson 2004). Therefore, it is crucial to examine the young athletes in these elite contexts in order to help produce physically and psychologically healthy individuals as well as talented athletes. These contexts include the presence of non-familial adults (i.e. coaches) who are crucial agents in promoting positive behaviours (Scales *et al.* 2006). This study seeks to

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examine what youth sport coaches *do* to promote positive youth development within their highly competitive youth sport programmes.

Research in the fields of developmental psychology and sport psychology has highlighted the importance of examining context in youth activities (Raedeke and Smith 2004, Petipas *et al.* 2005). Context not only includes an individual's physical environment but also consists of the social environment and relationships with the developing person (Bronfenbrenner 1999). Within the positive youth development literature, the National Research Council and Institute of Medicine (NRCIM 2002), drawing on a variety of research from the field, identified eight contextual setting features that should be present in community programmes (e.g. arts, music, sport, service groups) in order to facilitate youth development. Using extensive knowledge gathered from the field of developmental science, these setting features are 'subject to further study' (NRCIM 2002, p. 87) and are a list that could be used in the design of positive youth development programming. These features take into account the plethora of developmental theories which emphasise a holistic view that is a key factor in youth development. These setting features include: (1) physical and psychological safety, (2) appropriate structure, (3) supportive relationships, (4) opportunities to belong, (5) positive social norms, (6) support of efficacy and mattering, (7) opportunities for skill building, and (8) integration of family, school and community. Involvement in structured programmes that promote the growth of one or more of these features has been found to produce positive developmental outcomes in youth (i.e. increased self-efficacy, stronger interpersonal skills, development of quality adult and peer relationships) and decrease problem behaviours including alcohol and drug use and aggressive actions (Catalano *et al.* 2002). These setting features have not yet been empirically examined within a youth sport context and have received limited attention but they hold considerable promise as a framework for studying youth sport (Fraser-Thomas *et al.* 2005).

Côté, Strachan, *et al.* (2007), in an attempt to bridge the research in positive youth development and youth sport, reviewed each of the setting features and established links between the features and youth sport research. First, in terms of physical and psychological safety, the authors suggested that although physical safety is important, safe peer interactions must also be considered as these interactions have an impact on a child's perceived competence and self-worth (Horn 2004, Vazou *et al.* 2006). Appropriately structured sport programmes (i.e. clear rules and expectations, set practice plans and proper supervision) enable young people to operate within boundaries and to respect rules, ultimately leading to secure and positive youth. Next, supportive relationships in youth sport include the environment created by the coach. Since coaches affect motivation, enjoyment and self-efficacy (Black and Weiss 1992, Jowett and Poczwardowski 2007) and are important in the development of physical, psychological and social skills for the youth they encounter (Côté and Fraser-Thomas 2007), they are key fixtures in sport programme delivery and play a crucial role in the delivery and shape of sport programmes. Opportunities to belong in youth sport encompass the presence of meaningful inclusions and, since belonging is important to maintain persistence in an activity (Allen 2003), coaches do play a part in encouraging these interactions. The next feature, positive social norms, highlights the ability of sport programmes to develop values and morals in young people, including fair play, respect, cooperation and sportspersonship (Côté 2002). Support of efficacy and mattering (i.e. the opportunity to make a difference in a young person's social world) is the ability for sport programmes and coaches to empower athletes and allow for

autonomous action, which have been found to be key aspects in developing intrinsic motivation (Mallett 2005). The feature relating to opportunities for skill building can have many different connotations in a sport context; skill building may relate to the development of physical and motor skills as well as psychosocial learning experiences (Côté and Fraser-Thomas 2007). Finally, the integration of family, school and community within youth sport provides an opportunity for sport programmes to deliver unique experiences that may be transferred to other contexts. This 'developmental redundancy' has been found to increase the likelihood of thriving in youth (Benson *et al.* 2006).

In addition to the links made between the setting features and youth sport by Côté, Strachan, *et al.* (2007), Perkins and Noam (2007) developed a framework for sports-based youth development programmes. The features of this approach were also based on the eight setting features outlined by the NRCIM (2002) and were integrated for the development of positive youth sport programmes. Five additional setting features were developed that have particular importance and merit within sport contexts. These additional setting features include opportunities to foster cultural competence, active learning, opportunities for recognition, strength-based focus and the provision of ecological and holistic programmes. The overall theme of these setting features involves focusing on the development of the whole child and allowing him/her to discover his/her role not only as a sport participant, but as a person and civic contributor. Although this contribution is important, the setting features have not yet been examined empirically as a whole. This developmental approach focuses on the possible outcomes related to the youth sport experience. A deeper examination of the intensity of sport participation for youth brings to light the various experiences that youth may encounter through sport.

Throughout the explanation of the setting features, one clear message that is highlighted is the critical importance of the coach in the development and experiences of young athletes. The involvement of coaches in the creation of optimal learning environments for athletes is a key factor in a child's growth in sport (Baker *et al.* 2003). Coaches are not only responsible for physical skill development but also have a role in teaching psychological skills techniques (Weiss 1991, Smith *et al.* 1995) as well as promoting the development of fundamental life skills including teamwork and respect (Gould *et al.* 2002). A vast line of research, developed by Smith and Smoll over the past 40 years, examines coaching effectiveness in relation to children's sport participation. Results emphasise the need for coaches to be knowledgeable, supportive and mastery involved, judging success in terms of effort and learning and not just winning and losing (Smoll and Smith 2002, Smith *et al.* 2007, Smoll *et al.* 2007). These effective coaching behaviours have been found to lead to increased enjoyment for children and youth, increases in self-concept, reductions in competitive anxiety, increases in mastery involvement, decreases in ego involvement and decreased sport dropout. Since excellence in coaching 'must be judged by how coaches employ their knowledge, and demonstrate their behavioural and social competencies during their interactions with athletes in various sport contexts' (Côté, Young, *et al.* 2007, p. 4), linking coaches' behaviours to the delivery of the setting features in youth sport programmes is imperative to understanding youth sport participation.

Whether sport participation leads to recreational or competitive involvement, the concepts of sampling and play act as key components of the youth sport experience (Côté and Fraser-Thomas 2007). Côté, Baker, *et al.* (2007) demonstrate support for the importance of sampling (i.e. involvement in a variety of sports throughout

childhood and early adolescence) and deliberate play (unstructured but purposeful sport activities) in the development of elite-level athletes. Recent theoretical postulations have also suggested that youth involved in sampling may develop more positive outcomes (i.e. accrual of social capital, more experiences with diverse peers groups) than those involved in deliberate practice activities (i.e. structured sport involvement often involving the presence of a coach) during childhood (Côté *et al.* 2009). Nevertheless, recent empirical research has also found that youth investing a great deal of time in a structured activity report more positive developmental outcomes (i.e. initiative and identity experiences, positive relationships, emotional regulation) than those involved in a variety of different activities (Hansen and Larson 2007). Further, involvement in highly structured leisure programmes has been linked to lower levels of antisocial behaviour in youth (Mahoney and Stattin 2000). Therefore, if these findings are extended to a sport context, it would appear that it is possible for youth investing a great deal of time in sport to accrue positive developmental outcomes. An examination of this specific sport context may offer some insight into how these developmental outcomes might be fostered within a specialisation environment. Accordingly, the purpose of this study was to investigate elite sport contexts by examining coaches' perceptions using the NCRIM (2002) setting features as a framework. A secondary purpose of this study was to link current data and previous theoretical and empirical knowledge to suggest a model suitable for positive youth development through elite sport participation.

Methodology

Participants

The participants were five elite-level youth coaches (three males and two females) from central and eastern Canada who train elite athletes between the ages of 10 and 16 years. The elite coach status for these coaches is granted through a national certification programme and their respective governing sport bodies. Since coaches have a strong influence on the development of elite athletes (Gould *et al.* 2002), this group was purposefully sampled to report on the context of their settings. Two of the participants were swimming coaches (Sam and Stacy), two were artistic gymnastics coaches (Gabi and Gale), and one coached diving (Dana).¹ Athletes from their respective programmes participated in an earlier phase of a larger study (Strachan *et al.* 2009). These athletes (M age = 13.8, SD = 1.4) currently devote many hours each week to training (M = 19.2, SD = 3.2). These sport specialisation programmes were chosen initially due to scores compiled from the athletes on the Developmental Assets Profile (Search Institute 2004). In this measure, which indicates the development of connections and qualities that may lead to healthy personal growth, these athletes collectively scored within the good range (i.e. scores of 21–25 out of a possible 30 in each category). After meeting and speaking with coaches, it was discovered that some of these coaches had received provincial awards for coaching and one coach in particular was trained in child/adolescent personal development (i.e. taken several courses related to the Virtues ProjectTM). Two of the coaches were briefly involved in coaching other sports besides the sport they are currently coaching while the others have coached solely in one sport. Finally, three coaches were involved in coaching both males and females and two coaches coach females only. All were full-time employees in their respective programmes. Participants were contacted by phone or email to arrange a time for the interview and for observations to be conducted.

Consent was obtained (i.e. athletes, parents and coaches) and individual interviews and observations were conducted at the practice venue.

Data collection

This study included interviews and observation, using a methodological triangulation (i.e. multiple methods) of qualitative data sources (Patton 2002). In-depth open-ended interviews were used (Patton 2002). The first part of the interview included demographic questions (i.e. number of years coaching, number of years coaching at an elite level, other sport coaching experience, information regarding the athletes whom they currently coach). The semi-structured questions were prepared with the help of two experts in the fields of qualitative methodology and positive youth development and were based on the eight setting features outlined by the NRCIM (2002); this process resulted in the development of 11 questions relating to the setting features. A pilot interview was conducted with two elite-level coaches who were not involved in the study. This allowed for the wording and sequence of questions to be specified in advance and aided in creating a systematic and comprehensive method to data collection and to the interview structure (Patton 2002). A conversational strategy was also adopted in order to allow the interviewer some latitude in terms of probing and aids in the natural flow of the conversation (Patton 2002). As the interviewer was familiar with the participants (relationship developed over the period of one year), the participants and interviewer alike felt comfortable enough to enable an unconstrained exchange of dialogue. The four interviews lasted for approximately 130 minutes with one shorter interview that was included due to the richness of the data collected.

A direct observation method was also used in this study. Direct observation allowed the researcher to develop a deeper understanding of context, permitted for discovery-oriented inquiry and provided an opportunity to observe events that occur in a particular field which the participants may usually take for granted (Patton 2002). Further, observation offered a chance for the researcher to see interactions and actions that may not be discussed in an interview setting, broadened understanding and biases and helped to gain knowledge (Patton 2002). An etic (i.e. spectator) approach was adopted so as to not disrupt the usual setting (Patton 2002) and observations were audio-recorded. In total, seven observations were conducted during the scheduled practice times of the sports involved; three observations took place during swimming training sessions, two during diving practice and two in gymnastics. Each observation lasted three to four hours.

Interview analysis

Each interview was audio-recorded and transcribed verbatim by the lead author. Once transcribed, interviews were sent to the participants in order to check the accuracy of the transcription. Coaches were also invited to add to or clarify the document; none requested changes. A total of 45 single-spaced pages of transcript were coded and analysed. Deductive analysis was used for the interviews (based on the setting features) to identify the categories, and inductive analysis was used to explain the application of the setting features to the sport context (Strauss and Corbin 1990). By coding each sentence, the major ideas were developed and a further detailed analysis of the meaning units enabled the emergence or strengthening of the applications (Strauss and Corbin 1990).

Observation analysis

Observer comments were audio-recorded and transcribed verbatim by the primary researcher. A total of 30 single-spaced pages of field notes were coded. These pages were deductively analysed independent of the interviews in relation to the eight setting features (Strauss and Corbin 1990). Following this independent analysis, the observations were factored into the categories and applications emerging from the interviews. If the observation segment did not fit with any of the applications described through the interviews, the meaning unit was represented as a further application of that setting feature (Tesch 1990).

Results

Results from the interviews and observations are presented in order of the NRCIM's (2002) eight setting features (Table 1). The first column includes each of the eight setting features. The second column displays categories of the setting features in a sport context; 31 categories are presented. The third column represents the application of the category and setting feature in a youth sport context and 114 applications are included. The categories and applications outlined are results found through the interviews (I), observations (O) or both (I/O). The final column has a representative quotation from the interviews for each of the categories. The following is a synopsis of the deductive qualitative analysis of the interviews and observations. Quotations are provided in the following sections to enhance the clarity of the information presented.

Physical and psychological safety*Physical safety – equipment and facilities*

Two coaches cited the proper maintenance of equipment and safe set-up of equipment: 'So just basic, almost common sense stuff. If you see that it doesn't look safe, then we fix it kind of thing' (Gale). The observations corroborated these results and also noted the presence of a safe venue for sport participation.

Physical safety – personal safety

All of the coaches referred to the importance of considering the athletes' personal safety when delivering sport programmes. Four coaches stressed the importance of teaching basic skill requirements for the sport while three coaches suggested that it is crucial to work to minimise the risk of injury to the athlete: 'There's a girl actually right now doing a skill towards the wall and she's over-rotating so we had to put a mat against the wall' (Gale). Two coaches reported speaking to athletes about the risks involved in a particular sport and, lastly, two coaches reported teaching proper skill progressions to the participants. Observations revealed that three of the four categories were supported in the sport contexts (minimising the risk of injury, understanding the risk involved and the teaching of proper skill progressions).

Physical safety – supervision

Two coaches commented on the importance of having proper supervision in practice sessions: 'Depending on what the dryland is – if it's an aerobic focus, usually running

Table 1. Categories and applications from interviews and observations.

Setting features	Categories of setting features in sport (I – interviews; O – observations)	Application to youth sport (I – interviews; O – observations)
Physical and psychological safety	Equipment/facilities (I/O)	Maintaining equipment (I/O) Ensuring safe set-up of equipment (I/O) Safe and clear venue (O)
	Personal safety (I/O)	Teaching basic skill requirements (I) Increasing an awareness/understanding of risks (I/O) Minimising the risk of injury (I/O)
	Supervision (I/O)	Coach teaching proper skill progressions (I/O) Trained adults in venue (I/O) Monitoring training (I/O)
	Peer–peer interactions (I/O)	Creating a sense of family/camaraderie (I/O) Encouragement/cheering (I/O) Caring (O) Helpful (I) <i>Jealousy (I)</i> <i>In-fighting (I)</i>
	Coach–coach interactions (I/O)	Fellowship of coaches (I/O) Mutual ideology (I) Suspension/probation (I)
Appropriate structure	Reprimands for negative behaviour (I)	Coach involvement in resolving conflicts (I)
	Clear training structure and outline (I/O)	Implementing yearly, monthly and/or daily plans (I/O) Appropriate practice order (I/O) Coach ability to adapt training (I/O)
	Clear training and behavioural expectations (I/O)	Physical preparation for training and competition (I/O) Skill improvement (I) Expected training routine followed by athletes (I/O)

Table 1. (Continued).

Setting features	Categories of setting features in sport (I – interviews; O – observations)	Application to youth sport (I – interviews; O – observations)
	Opportunities for play (I/O)	High expectation of athletes (I) Play time given as a reward (I) Play time built into training (I/O) Free play undertaken independently by athletes (O)
Supportive relationships	Encouragement (I/O)	Provision of motivation (I/O)
	Coach responsibility for development and experience (I/O)	Caring/supportive attitude towards athletes during training (I/O) Preparedness for training sessions (I) Keeping training records (I) Providing guidance to athletes (I/O) Creating a positive environment (I) Knowledge of individual needs (I) Responsibility for athletic development and personal growth (I) Development of technical knowledge (I) Allowing for creativity in skill development (I) Technical and/or outcome feedback (I/O) Engaging in casual communication (I/O) Giving positive comments regarding character development (I/O) Development of bonds over time (I/O) Athletes react positively to coach (O) Allowance for 100% participation (I/O) Developing methods to increase participation/belonging (I/O) Opportunities for athletes to travel (I) Establishing training partners (I/O) Age/skill-related groupings (O)
	Sport-related training interactions (I/O)	
	Non-sport-related training interactions (I/O)	
Opportunities to belong	Nature of sport participation (I/O)	
	Groupings (I/O)	

Table 1. (Continued).

Setting features	Categories of setting features in sport (I – interviews; O – observations)	Application to youth sport (I – interviews; O – observations)
Positive social norms	Demonstration of positive values (I/O)	Athlete development of pride (I/O) Expectation of respect (I) Athlete development of sense of respect (I/O) Instilling pride in athletes (I) Sportspersonship (O)
Support of efficacy and mattering	Leadership development (I/O)	Appointment of team captains (I) Opportunities for mentoring within programme (I) Warm-up/practice leaders (O)
	Autonomous action (I/O)	Coach enabling athlete independence (I/O) Athletes taking control of training (I/O) Athletes setting up activities in training (I/O)
	Development of responsibility and trust (I/O)	Coach enabling the development of responsibility (I/O) Athlete role in positive representation of programme to others (I) Coach comfortable with athletes (I) Reciprocity in coach–athlete training relationship (I/O) Athlete awareness of modelling within programme (I/O) Athlete awareness of health limits (O)
	Opportunities for decision-making (I/O)	Coach open to modifications in training (I/O)
	Self-referenced improvement (I/O)	Coach accepting of athlete's choice in training (O) Coach giving individual targets (I/O) Coach recording individual results (I/O)
	Opportunities for recognition in training (I/O)	Individual acknowledgement in practice (I/O) Displaying individual accomplishment (I/O) Formal awards within programme (O)

Table 1. (Continued).

Setting features	Categories of setting features in sport (I – interviews; O – observations)	Application to youth sport (I – interviews; O – observations)
Opportunities for skill building	Physical skill development (I/O)	Strength (I/O) Flexibility (I/O) Coordination (I/O) Fitness (I/O) <i>Lack of transferability</i> (O) Mental toughness (I) Overcoming fear/adversity (I/O) Confidence (I) Goal setting (I) Focus/concentration (O) Work ethic (I/O) Co-ed interactions (I) Teamwork (I)
	Personal and social skill development (I/O)	<i>Lack of social skill development</i> (I) Positive body image (I) Time management/organisation (I) Commitment/dedication (I) Life lessons (I) Understanding/tolerance (I) Character development (I) New sport skill development (O) Personal accountability (O)
Integration of family, school and community	Parental support and involvement (I/O)	Parent takes an interest in sport participation (I/O) Coach encouraging positive parental support (I) Volunteerism (I)

Table 1. (Continued).

Setting features	Categories of setting features in sport (I – interviews; O – observations)
Expectation of parents (I)	Application to youth sport (I – interviews; O – observations)
Understanding from school regarding sport involvement (I)	Fundraising (I) <i>Negative parental involvement (I)</i> <i>Lack of parental support (I)</i> Parent understanding of defined roles of involvement (I) Financial commitments (I) Parent helpful with athlete preparation for training (I) School makes allowances for athletes from programme (I) <i>No allowances for athletes (I)</i> <i>Negative attitude towards sport participation (I)</i>
Communication between programme and school (I)	Sport participation for physical education credit (I) Letters sent to school explaining sport involvement (I) <i>No established protocol with school (I)</i>
Programme support regarding academics and school involvement (I/O)	School is the priority (I) Programme making allowance for athlete to participate in special school events (I/O)
Community support (I)	Community fundraisers (I) Community exposure (I)

or stairs, they can pretty much do that on their own but if there's any sort of strength involvement, I usually have to monitor what they're doing because their technique fails and things like that' (Stacy). In reviewing the observations, the applications were supported in this elite sport context.

Psychological safety – peer–peer interactions

All five coaches noted the presence of safe peer–peer interactions in the delivery of the sport programmes: 'We get them together – we try to get them together once every couple of months. They keep in contact through notes in their mailbox or email and they encourage each other through competitions – send each other a note like "Good luck next weekend. I hear you're competing"' (Gabi). Two coaches discussed the importance of creating a sense of family and camaraderie amongst athletes, two coaches commented upon the encouragement and cheering that occurs during training session, and one coach mentioned that athletes are helpful towards each other. Observations were in agreement with the presence of camaraderie and an encouraging atmosphere: 'In terms of the interactions between each other, you can tell that they all get along quite well considering the amount of time that they spend together. They are all very supportive of each other. You can tell that by the way they cheer on the other teammates as they are racing and they make sure that they can hear that they are cheering for them. You know, by telling them "Go, go!" or just encouraging them as they are going along.' Furthermore, displays of caring were added as an application after a review of the observations. Two coaches did note, however, that negative interactions may occur in sport settings, namely the presence of jealousy and in-fighting between some members of the group.

Psychological safety – coach–coach interactions

In order to create a safe environment, one coach suggested that it was important for coaches to display fellowship amongst themselves, and another coach commented that it was crucial to have a mutual ideology in the delivery of the sport programme: 'I'm so thrilled to be part of this coaching staff. I love it ... And when (name) called me to see if I wanted a job and we shared how we felt and the first thing was – I said: "I don't want to come to club where you're not interested in creating people because that's what I do." And she said: "That's exactly what I want." So that was it' (Gabi). This sense of fellowship and common ideology was witnessed through the observations.

Psychological safety – reprimands for negative behaviour

Four coaches commented that coach involvement is needed to resolve conflicts that may arise: 'We had an instance a month and a half ago – one of the boys made a racial slur. He was 11. I don't even think he understood what he was saying. However, our coaches responded to it and he sat down with the group and apologised to the group and that was one of the conditions in order for him to keep swimming' (Sam). Three coaches mentioned that sometimes more serious reprimands are needed in the form of probation or suspension from the programme. No observed behaviours were noted for this particular category.

Appropriate structure

Clear training structure and outline

The interviews and observations revealed that all coaches implement yearly, monthly and/or daily training plans. Further, three coaches reported that an appropriate order is followed in training sessions and one coach noted the importance of adapting training if needed: 'I know what their lists are and, uh ... so I decide because it can change day to day. They may show up with a headache or not feeling well. They may have had a tough day at school. They're at the stage where, you know, a boy says something to them and they just clip! So, I take all of these into consideration' (Dana). These two latter applications were also confirmed in the observations.

Clear training and behavioural expectations

Three coaches stressed the importance of having clear behavioural rules for athletes: 'No flicking their towels, no back talking me – just basic rules like they have in school' (Dana). Two coaches mentioned the importance of having clear training expectations such as an expected training routine. This was supported in the observations (e.g. coaches having daily workouts written on a board). Also, one coach suggested that high expectations should be demanded and improvements in skill are also expected.

Opportunities for play

One coach gave play time as a reward and three coaches mentioned that they incorporate play into the training programme between periods of intense training: 'Our short course season is over and all the championship meets are done so now it's sort of time to kind of take a deep breath. So there's a lot more fun involved over the next week and half. We sort of let up the reigns a little bit' (Stacy). The latter opportunity for play was observed in the training sessions. Observations also displayed that free play was independently carried out by some of the athletes:

What is good to see is that, even though they're done, they didn't hurry out. All the athletes are all still here and they are just playing. You know – diving off of the 10 m or just jumping off the 10 m for fun ... doing some fun stuff off of the 7 m or doing some fun little towel exchange jumps off the 3 m platform or just kind of jumping off the 5 m ... you know – very safe – the coach is still here watching them but they have an opportunity to just play and jump and do whatever they want ... And the parents are also waiting for them and letting them play and not rushing them to leave so it's really good to see that. (O)

Supportive relationships

Encouragement

One coach suggested that a supportive relationship was built through providing motivation to athletes and by demonstrating a caring and supportive attitude towards them in training: 'As long as the coach on the pool deck is showing that they care what they're doing, the kids – you have a better chance of bringing out the best in them' (Stacy). This attitude was also shown through a coach being vocal in celebrating successes in practice. These actions were substantiated through the observations with each of the other coaches.

Coach responsibility for athlete development and experience

Three coaches underscored the responsibility a coach has in developing personal growth in their athletes. Further, three coaches spoke about the creation of a supportive environment through providing guidance to their athletes. Also, three coaches suggested that creating a positive training environment for their athletes was important to maintaining a supportive relationship. Two coaches highlighted the importance of taking time to understanding individual needs of their athletes, and another coach discussed the responsibility a coach has in developing athletic talent. The same coach emphasised the responsibility of keeping training records for the athletes and being prepared for each training session. Finally, the importance of a coach's technical knowledge in developing supportive relationships was relayed by one coach as well as taking the time to allow for creativity in athletes' skill development (i.e. allowing athletes to come up with different drills). Of all the applications mentioned, the provision of guidance was the only one directly noted in a practice session.

Sport-related training interactions

The provision of technical feedback was a key part of developing young athletes and this was evidenced by comments made by four coaches as well as through observations: 'I usually try to touch base with each athlete on – as to a technical correction ... whether it be positive or negative' (Sam).

Non-sport-related training interactions

Two coaches mentioned that they developed close bonds with the athletes over a period of time through training experiences. Also, one coach mentioned casual communication that may take place between the athlete and coach (i.e. small talk during practice), and another coach emphasised not only providing technical feedback but also feedback regarding the development of the athletes' character: 'I think every kid deserves to have a personal relationship with their coach. I don't think it works to work with a child 16 hours a week or 20 hours a week and pretend like you don't care about them ... But we just have this environment where we are creating people. They're not just gymnasts – they are going to be people long after they're turning cartwheels' (Gabi). Observations revealed that athletes demonstrated positive reactions to their coach during training sessions.

Opportunities to belong*Nature of sport participation*

Due to the inherent nature of the sports involved in this study, the coaches noted that athletes were included in each practice. Applications were observed in training (i.e. cheering, highlighting individual athletes). Another coach mentioned the opportunities these athletes have to travel and the time spent together on trips increases their sense of belonging within the programme.

Groupings

One coach mentioned the establishment of training partners to increase the sense of belonging in the programme. This was observed in the training sessions along with the presence of age and/or skill-related groupings to help increase belonging.

Positive social norms

Demonstration of positive values

Two coaches suggested that athletes demonstrate the development of pride as they go through their training: 'They're proud of what they do, they share that with each other when they congratulate each other' (Stacy). This development was also observed. Two coaches also mentioned the expectation of respect through participation in the programme and this was also observed as was the presence of sports-personship.

Support of efficacy and mattering

Leadership development

One coach appointed team captains while two other coaches provided opportunities within the programme for mentoring between older and younger athletes. Although specific behaviours were not observed, the establishment of warm-up or practice leaders during training was detected.

Autonomous action

Two coaches mentioned encouraging athletes to take control of their training (i.e. warming up independently, asking questions when they do not understand a concept), another coach commented on enabling independent action, while one other coach allowed athletes to set up training activities independently. Each of these applications was supported by the observations. Moreover, several examples of active decision-making were observed through the actions of coaches: '(He) said that it was her choice to stay there and they would have preferred to have her move with the other girl to the more elite group. But it was her decision to stay with (him) and they, as coaches, supported her decision although they didn't necessarily agree with it' (O).

Development of responsibility and trust

Comments from two coaches focused on helping athletes develop responsibility in training, and another two coaches mentioned that athletes need to be aware of their role within a programme of modelling good behaviours: 'They also have to remember that they are highly visible to not just our club, but to everybody who is in that environment. So they ... the role they play is an ambassador of swimming' (Stacy). Observations demonstrated the presence of the aforementioned applications. Two coaches suggested that the development of trust is a key component of building a sense of mattering in athletes.

Self-referenced improvement

Through the interviews, one coach emphasised the importance of giving athletes individual targets and recording individual results. Observations found that each coach utilised this strategy and it was very present in the sport context: 'Their personal bests are recorded on this chart and given a sticker if they beat their time' (O).

Opportunities for recognition in training

Interviews revealed opportunities within the sport context for recognising athletes' accomplishments. One coach mentioned that individual acknowledgement is appropriate in training if improvements are displayed, and another coach stressed the importance of displaying individual accomplishments: 'But it's about collectively recognising accomplishments and have them go up on the wall. And not as small as a little sticker but something big that you can see from a distance' (Gabi). Both of these applications were shown through observation as well as the handing out of formal awards within the programme.

Opportunities for skill building

Physical skill development

Within a sport context, two coaches emphasised the opportunities athletes have to develop physical skills such as strength, flexibility, coordination and fitness. The development of each of these physical skills was corroborated in the observations. One coach did note, however, that the intense development of skills in one specific context may lead to a lack of transferability of these skills to other sports.

Personal and social skill development

The development of several personal skills was discussed by the coaches. Three coaches mentioned that confidence was an important trait developed through their sport programmes: 'I can't remember what it was but someone from the outside came and talked to the girls – it might have been that we were doing a break dancing instruction – and they were just shocked at just how outspoken they were and the fact that they didn't just sit there and not say anything. They're willing to be the first one to try something and if they mess up, they don't care' (Gale). Two coaches suggested that mental toughness, the ability to overcome fear and face adversity and goal-setting were developed in an elite sport context along with the development of a strong work ethic. All coaches suggested that the elite sport programmes offer the chance for athletes to display commitment and dedication and develop understanding and tolerance towards other programme members. Four coaches commented on the opportunities athletes have to develop good time management and organisational skills. Three coaches mentioned that athletes have the possibility of learning valuable life lessons through sport: 'Life is a big competition and this prepares them in so many ways' (Dana). Further opportunities for learning include character development and the development of a positive body image. The aforementioned personal skills were not directly observed; however, other applications were seen, namely the opportunity to learn new sport skills and understanding the meaning of personal accountability. The personal skills of overcoming fear/adversity and having a strong work ethic were observed as well as the ability to focus and concentrate during training. A few incidences of social skill development were also noted through the interviews, namely teamwork and co-ed interactions (i.e. males and females training together in the same group). These were confirmed in the observations. One coach noticed, however, that some athletes may display a lack of social skill development.

Integration of family, school and community

Parental support and involvement

All coaches remarked that parental involvement is vital to the continuous delivery of their programmes. Four coaches discussed the role parents play in fundraising efforts for the programme, and three coaches stated the importance of parent volunteerism. One coach did suggest that negative parental involvement is also present in elite sport programmes (i.e. competitiveness, attempts to be involved in coach's decision-making). One coach noted that most parents take an interest in their child's sport participation, and this was found through the observations as well. Furthermore, one coach mentioned that positive parent support is encouraged; however, another commented that, at times, there is a lack of parental support shown towards some athletes.

Expectation of parents

All the coaches discussed the expectations that are placed upon parents within an elite sport programme. Four coaches expressed the importance of parents understanding their roles in terms of involvement in the programme, one coach mentioned the financial commitments expected of parents, and one coach explained that parents are expected to be helpful in preparing their child for training.

Understanding from school regarding sport involvement

Two coaches commented that schools often make allowances for the athletes within the programme in order to facilitate training. However, two coaches mentioned that some schools have a negative attitude towards the child's elite sport participation, and one coach stated that some schools make no allowances for athletes.

Communication between programme and school

Two coaches described instances of communication between the elite programme and schools where letters are often sent to schools in order to explain the child's sport involvement. One coach even noted that the child's sport participation is used to fulfil physical education credits in junior high or high school. Two coaches explained, however, that their programme has no established protocol with schools in terms of the child's elite sport involvement.

Programme support regarding academics and school involvement

In terms of academic expectations, three of the five coaches emphasised that academic grades were a priority before time spent in training. One coach suggested that the elite sport programme has made allowances for athletes to participate in special school events or outings and this was observed.

Community support

All coaches stated that community exposure is evident and important in their programmes: 'We have a presence at the Exhibition – our kids go around and they

clean up the Ex. And we're constantly looking for opportunities to improve our visibility, not only as a promotional to get kids in, but just, I guess, raise the status of the club' (Stacy). Three coaches included that community fundraisers are a vital part to the maintenance of their programmes as well as the visibility of the programme in the community.

Discussion

The primary purpose of this study was to empirically examine (i.e. by interviews and observations) the presence of the NRCIM's (2002) eight setting features in elite youth sport contexts from a coach's perspective. Rather than simply discussing each of the setting features separately, it is important to contextualise these results within existing sport psychology literature. Therefore, based on the deductive data gained from the interviews and observations and the theoretical and empirical knowledge amassed from previous literature, an inductive approach is warranted to establish sport-specific criteria for positive youth development. This inductive approach has brought forth three key elements that apply to the delivery of positive youth development programmes in an elite sport setting: (1) the existence of an appropriate training environment, (2) the provision of opportunities for physical, personal and social skill development, and (3) the presence of supportive interactions. Suggestions are also offered to coaches about what can be done to promote positive youth development in high-performance settings.

From the interviews and observations, it is clear that an appropriate training environment is needed in order to deliver positive programmes to young elite athletes. To develop the skills required at a young age, a proper training structure is of utmost importance. Proper training entails the athletes engaging in deliberate practice activities, opportunities to engage in competitions and travel, and clear expectations regarding training demands (Côté, Young, *et al.* 2007). These actions were all reported by coaches in this study. Along with deliberate practice, Côté, Young, *et al.* (2007) also suggest that high-performance programmes should include opportunities for deliberate play as a vehicle to promote enjoyment in sport. The present study corroborated this finding within an elite sport context; play was included by coaches within each programme as a reward for training or as a tapering mechanism relating to training. The elite athletes also engaged in free play in some instances, and it is clear that these actions do promote interest and enjoyment. While the implementation of suitable training plans is required within an elite youth sport setting, safety is also crucial to consider in the delivery of these programmes. As the presence and maintenance of a safe physical environment is important for increasing physical activity for children and youth (Farley *et al.* 2007), it may be that similar findings can be extended into a sport setting as safe facilities and equipment may allow young sport participants to have a positive experience. Also, by teaching proper progressions, basic skills, minimising the risks for athletes and providing proper supervision, young athletes can be assured that their physical safety has been considered. Psychological safety is also an important consideration within youth sport programmes. An organisational definition of psychological safety states that it is 'a shared belief held by members of a team that the team is safe for interpersonal risk taking' (Edmondson 1999, p. 350). In this elite sport context, the creation of a sense of family and the presence of encouragement, caring and helpfulness leads to the establishment of a safe team environment that can enable youth to take risks. However, as jealousy and in-fighting are mentioned as

negative interactions, these actions can hinder the safe feeling of the programme. Coaches need to be aware of the growth of negative interactions and encourage positive peer–peer interactions within the sport programme. Furthermore, having reprimands for negative behaviours that may occur promotes the occurrence of a safe environment. These safe interactions also come from the behaviours of coaches in the form of technical feedback and correction. Technical correction and feedback has been found to be more valuable to young athletes than general encouragement (Smoll and Smith 2002). To facilitate the delivery of this kind of feedback within an elite sport context, coaches need to be extremely knowledgeable in regards to their respective sports.

Gaining competence in physical and motor skills is an important outcome of youth sport participation (Côté and Fraser-Thomas 2007). Coaches have a critical role in teaching basic skills and proper progressions in order to enable success for young elite athletes. Interviews and observations also revealed that coaches have a responsibility to physically prepare their athletes for training and competition. Further, the development of physical skills, such as strength, flexibility and coordination, leads athletes to gain competence and may lead to the pursuit of life-long fitness. In middle to late childhood, athletic competence emerges as a key area of competence for children (Harter 1999). As sport participation enables the development of athletic competence, participation in elite sport programmes may enhance these feelings. Also, as body image concerns are particularly salient for females (Gill 2000), elite sport may help to enhance self-perceptions of fitness and, as demonstrated through the current study, may allow young athletes to feel confident about their bodies and the importance of being fit for life.

Participation in sport provides many opportunities for the development of personal and social skills as well. Côté and Fraser-Thomas (2007) state that sport participation gives youth the chance to learn life skills including leadership, discipline, self-control and cooperation. An evaluation of elite sport settings in the current study highlights several more personal skills hypothesised to be developed within this context such as responsibility, decision-making, autonomous action, tolerance, time management and trust. In addition, overcoming fear, developing mental toughness, possessing a strong work ethic and developing good concentration skills were cited by coaches as skills fostered in this setting. In quantitative and qualitative assessments conducted with 10 Olympic champions, Gould *et al.* (2002) revealed the existence of many of the same personal qualities and stressed the important role that coaches and family played in their development through elite sport. Just as personal skills are developed within elite settings, so too are social skills. The present study highlighted the growth of teamwork and opportunities for co-ed interactions. The social environment of sport has an impact on motivation and interest for youth; this environment may lead to greater perceptions of belonging which can lead to increased confidence in developing physical skills in sport (Allen 2003). The same impact may also be observed in an elite sport context. As physical skills are developed, the confidence gained by these young athletes may allow for an increased sense of belonging, leading to greater motivation and interest in their chosen sport.

In adolescence, Harter (1999) has demonstrated that athletic competence, along with the development of close friendships (amongst others), is an important domain in which youth develop perceptions of self. The presence of supportive interactions within an elite sport context becomes an important element for consideration throughout development and was clearly apparent in the responses to interviews and through

observations. The athlete–coach relationship is inter-related and dynamic (Jowett and Poczwadowski 2007) and, therefore, there is the potential for growth to occur on both sides. Smoll and Smith (2002) contend that the influence of a coach is present, not only in a sport setting, but also in other areas of a young person's life. The authors also state that, due to the increasing number of single-parent households, coaches can be put in the position of being a parental figure. Therefore, because of the time spent by the young elite athletes in a sport setting, it can be argued that the coaches act as second parents and are crucial agents in their development. As suggested earlier, sport-related training interactions (i.e. feedback) are critical to physical skill development but of equal importance are non-sport-related training interactions between athletes and coaches (i.e. casual communication, positive comments regarding character development and athletes' positive reaction to the coach) to develop communication and personal skills. Coaches also engaged in offering encouragement to their athletes by motivating them and displaying a caring and supportive attitude towards them in training. Finally, in some form, each coach commented on the great responsibility they have in the young people's personal development and experience within the programme. From acknowledging the responsibility they have in developing positive youth and providing guidance to tasks such as keeping training records and creating a positive environment, the coaches leading these elite programmes made it clear that it is their duty to provide the best experience they can for all of the athletes involved. These coaching behaviours in an elite sport environment facilitate feelings of empowerment, safety and belonging in the programme.

Athletes are influenced not only by coaches but also by various other individuals (i.e. parents), schools and community organisations (Gould *et al.* 2002). As parents provide different types of support in youth sport (Côté 1999), they have a few key roles, particularly in an elite sport setting. Results from the present study stress the importance of positive parental support and the coach's encouragement of these behaviours. Also, volunteerism and fundraising efforts on the part of parents is an important aspect of elite programmes and expectations from coaches regarding involvement (i.e. defined roles) and parental responsibilities regarding the programme (i.e. financial commitments) should be well presented. As parental involvement is critical to the operation of a sport programme, an athlete's involvement in school cannot be ignored as a key aspect to integrate into training. As participation in elite sport has the potential to attract scholarships for young people and aid in the cost of post-secondary education (Gould and Carson 2004), it is right that coaches in the present study reported an emphasis on school as a priority. More communication between elite sport programmes and schools is needed in order to assist young people navigate success in both contexts. Brettschneider (1999), in a study examining 700 elite youth athletes, found that the elite athletes scored higher on indicators of academic success, general self-perceptions and peer and parent relationships as compared to a control group of youth. Results also underscored the importance of an increased academic self-concept in enabling young elite athletes to cope with stress. Therefore, establishing a protocol with schools regarding sport participation and emphasising the benefits of elite participation to school boards may encourage the development of understanding between these contexts and may help young athletes to achieve even more.

A final piece in the presence of supportive interactions is the merging of elite sport programme and the community at large. All coaches in the present study described examples of community exposure and integration in their programme; the interactions occurred in varying degrees, from province-wide initiatives developed through the

programmes to smaller scale community involvement. Benson *et al.* (2006) depict the presence of community as ‘a viable focus for understanding and promoting dynamics crucial for maximizing context/person relationships’ (p. 926) and suggest that it is a vital focus of growth in the area of positive youth development. Integration of the community, regardless of the scope, is a promising avenue to pursue in endorsing the growth of positive youth within an elite sport context.

Results from this study demonstrate the potential value that elite sport has in the development of positive youth. Although coaches did mention some negative categories of growth in their athletes, many positive implications were noted. There are challenges with adopting each of the setting features within these programmes, and it has been noted that each of the eight setting features must be present and maximised for positive development to occur (NRCIM 2002). Even though coaches in this study reported the presence of each of the setting features in their environments, implementing all of them consistently within a programme is difficult and requires great effort on the part of coaches and programme administrators. More specifically, linking elite sport programmes with the community and school context is acutely needed to highlight the accomplishments of these talented athletes and may also facilitate the growth of a positive identity and belonging to groups beyond their respective sports. More research is needed to examine these links and, in particular, the perceptions of programme delivery from the athletes themselves. Further, the inclusion of more sport programmes (i.e. individual and team sports) would have added strength to the results.

Conclusion

Sport programmes have a critical role in promoting the development of positive youth (Perkins and Noam 2007). The potential of these programmes can be realised if they are intentionally delivered with a focus of developing not only athletes, but healthy citizens. The context of elite sport provides an interesting lens through which to explore positive development. Within elite youth sport contexts, results from the current study point to three main areas of critical importance: (1) the existence of an appropriate training environment, (2) the provision of opportunities for physical, personal and social skill development, and (3) the presence of supportive interactions. These areas can promote growth and enable the effective delivery of elite youth sport programmes in a positive manner. This environment is possible, and coaches, parents, schools and communities need to be aware of the impact and responsibility they have in promoting a positive environment through sport. Ultimately, this awareness will lead to not only the development of talented athletes, but also the emergence of strong, independent and responsible young people.

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Note

1. All the names used in this paper are pseudonyms.

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