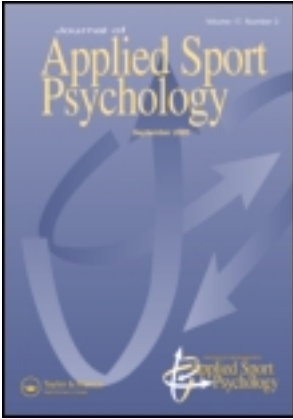


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Coaches' Perceptions of a Coach Training Program Designed to Promote Youth Developmental Outcomes

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The purpose of this study was to investigate coaches' perceptions on the impact of a coach training program designed to promote youth developmental outcomes. Participants were coaches of youth sport teams. Multiple methods were used to collect data. Coaches reported many benefits for themselves, their athletes, and their teams. They reported an increase in knowledge and a better understanding of their players. Participants perceived that the activities promoted cohesion and communication, while also contributing to the development of athlete competence, confidence, connection, and character/caring. The results provide guidance for creating and delivering coach training programs designed to promote youth developmental outcomes.

INTRODUCTION

Organized youth sport has long been considered one of the prime settings for developing a wide range of positive outcomes (De Knop, Engstrom, Skirstad, & Weiss, 1996; Holt, 2011). Well-established theoretical frameworks such as achievement goal theory have strongly influenced recommendations for youth sport setting design and coaching practices, based on evidence showing a strong correlation between mastery-oriented climates and a range of desirable motivational outcomes (e.g., Horn, 2008; Ntoumanis & Biddle, 1999). With continued growth and interest in youth sport as a prime developmental setting, several other broad conceptual frameworks have recently appeared in the applied sport psychology literature. The literature review conducted in preparation for the present study revealed three overlapping conceptual frameworks guiding current efforts to understand how sport promotes positive outcomes for youth: positive youth development (PYD; Holt & Sehn, 2008; Jones, Dunn, Holt, Sullivan, & Bloom, 2011; Vella, Oades, & Crowe, 2011; Zarrett et al., 2008), life skills (Camiré, Trudel, & Forneris, 2009; Danish, Taylor, Hodge, & Heke, 2004; Gould & Carson, 2008), and athlete development (Côté, Bruner, Erickson, Strachan, & Fraser-Thomas, 2010; Côté, Salmela, Trudel, Baria, & Russell, 1995). PYD is a general term used to describe the promotion of any desirable outcome (Benson, 2006). Life skills are specific skills that can help a young person succeed in sport and life (Gould & Carson, 2008). Athlete development focuses on

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four competencies that should emerge from the positive interactions of coaches and athletes (Côté et al., 2010).

PYD is an approach that focuses on positive experiences for youth as a way to build values and sustain long-term prevention of unhealthy and risky behaviors (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004). It has been defined as “engagement in prosocial behaviors and avoidance of health-compromising and future-jeopardizing behaviors” (Roth, Brooks-Gunn, Murray, & Foster, 1998, p. 426). Lerner, Fisher, and Weinberg (2000) outlined five developmental outcomes that accrued from PYD programs: competence, confidence, connection, character, and caring/compassion. These outcomes have become known as the 5Cs of PYD. Despite books and entire journal issues now available on the topic of PYD applied to sport settings (e.g., Holt, 2008; Perkins & Le Menestrel, 2007), there are still few examples of empirical research exploring the relationship between PYD and youth sport (e.g., Holt & Sehn, 2008; Vella et al., 2011; Zarrett et al., 2008). For example, Zarrett et al. found that youth who were highly engaged in several activities (including sport) or were engaged in youth development sport programs scored higher on PYD indicators than those who participated only in sport. In another study, Holt and Sehn found that competitive sport environments promoted PYD by teaching initiative, teamwork, and social skills. The authors suggested that the impact of youths’ experience in sport was related to participants’ interactions with their parents and coaches. These findings corroborate coaching literature, which found the coach impacted the quality of the youths’ sport experience (Smith & Smoll, 2002). Finally, in one of the most recent studies, Vella et al. (2011) found that youth sport coaches believed their role should include the explicit development of a wide range of PYD outcomes including life skills.

Life skills refer to specific behavioral or cognitive skills (e.g., emotional control, self-esteem, communication) that enables individuals to succeed in the different environments in which they live (Danish et al., 2004). An important aspect of life skills is that they must be transferable to other day-to-day settings such as school, home, and neighborhoods (Gould & Carson, 2008). Research on teaching life skills through sport has been equivocal. Although some studies found that sport participation led to increased substance abuse and risky behaviors (e.g., Moore & Werch, 2005), the majority of research has indicated that under the right conditions life skills can be taught through sport (e.g., Papacharisis, Goudas, Danish, & Theodorakis, 2005). According to Gould and Carson (2008), life skills development “. . . does not occur from merely participating in sports. . . [they] must be targeted and taught in environments that are conducive for doing so” (p. 63). Moreover, Petitpas, Van Raalte, Cornelius, and Presbrey (2004) found that the implementation of a life skills development program increased high school students’ grades and motivation to pursue higher education. According to the authors, a positive relationship with coaches and a positive group experience were critical for building an appropriate environment for teaching life skills (Petitpas et al., 2004).

A third youth development framework that has been applied to sport may be referred to as the athlete development approach. The term was first used by Côté et al. (1995) when they created a coaching model describing the variables that influenced coaches’ behaviors and athletes’ development. Inspired by the 5Cs identified in the PYD literature, Côté et al. (2010) collapsed the desirable outcomes of athlete development into 4Cs: competence, confidence, connection, and character/caring. Competence is defined as an individual’s perceptions of his or her abilities in specific domains. Confidence is the degree of certainty an individual possesses about his or her ability to succeed. Connection is the positive interpersonal relationships originating from the need to belong and feel cared for. Finally, character/caring refers to an individual’s moral development and sportspersonship.

A common finding across the three conceptual frameworks was the central role of the coach in creating and promoting youth developmental outcomes in sport. Although many developed

countries have comprehensive large-scale coach education programs (Trudel & Gilbert, 2006), it is unlikely that coaches develop the skills needed to teach the full range of developmental outcomes in these programs. A recent review of the impact of large-scale coach education programs on coach behavior and quality of youth sport programs found that the impact of these programs was rarely measured, and when it was, the programs were shown to have very little significant or durable impact (Trudel, Gilbert, & Werthner, 2010). It appears, however, that youth sport coaches can learn how to teach positive youth developmental outcomes through small-scale intervention studies or informal learning situations (e.g., experiential learning).

The most developed line of youth coach intervention research has emanated from Smith, Smoll and colleagues in the United States (e.g., Smith, Smoll, & Curtis, 1979; Smith & Smoll, 2002; Smith, Smoll, & Cumming, 2007). Recently called the mastery approach to coaching (MAC), their program is a 75 min workshop that integrates principles of positive coaching with achievement goal theory. In the workshop, coaches learn to (a) focus on mastering skills rather than beating an opponent, (b) adopt a positive approach to coaching that encourages the use of reinforcement and encouragement to strengthen the team environment, (c) establish norms that promote and support a positive environment, (d) involve athletes in the decision-making process regarding the team, and (e) self-monitor their behaviors to help encourage compliance to the positive approach guidelines (Smith et al., 2007). Participants of the program receive a workbook with these principles, along with a reminder card, and a behavioral self-monitoring form. Results from studies that have used this workshop protocol to train coaches revealed increased positive youth development outcomes such as self-esteem and self-worth, scholastic competence, communication skills, and ability to work with others (e.g., Smith et al., 1979, 2007; Smith & Smoll, 2002).

A similar type of small-scale training program has evolved from the work of Carron and Spink (1993) who taught university fitness instructors how to promote cohesion. Their protocol has been used with elite soccer coaches (Carron, Spink, & Prapavessis, 1997) and youth ice hockey coaches (Newin et al., 2008). More specifically, Newin and colleagues found that a coach training workshop improved coaches' behaviors and feedback style, as well as increased team cohesion, athletes' cognitive abilities, focus, communication skills, and ability to work with others. Collectively, these findings from small-scale training studies suggest that trained youth sport coaches and instructors can be taught how to teach positive youth developmental outcomes by implementing developmentally appropriate activities.

The consensus is that youth sport is recognized as a prime setting for teaching youth developmental outcomes. However, despite the proliferation of coach education around the world in recent years, there is scant evidence for the impact of large-scale coach education programs on improving coaches' ability to effectively teach youth developmental outcomes (Trudel et al., 2010). Although there is a growing body of evidence to show that small-scale coach training programs can improve coaches' ability to teach youth developmental outcomes, few examples of this type of research are available. Lastly, a close examination of the few small-scale coach training intervention studies that have been conducted shows only small and/or acute improvements in coach behavior and athlete outcomes (Trudel et al., 2010). Clearly the widespread recognition of youth sport as a key developmental context, coupled with the scarcity of evidence for the ability of large-scale coach education programs to teach coaches how to promote youth developmental outcomes, illustrates a need for additional research on the impact of interventions designed specifically to improve youth sport coaches' ability to teach developmental outcomes (Camiré, Forneris, Trudel, & Bernard, 2011). The purpose of the present study was to investigate coaches' perceptions on the impact of a coach training program designed to promote youth developmental outcomes.

METHOD

Participants

Six youth sport (soccer and basketball) coaches from both recreational and competitive leagues from two sport associations in an urban Canadian city participated in this study. The participants coached in lower income areas of the city. One participant was a boy's soccer coach at the house league level with athletes 12 and 13 years of age. Five participants were basketball coaches at the competitive level. Four coached boys teams (U11, U13, U15, and U17), and one coached a girls team (U17). The average age of the coaches was 37.5 years, ranging from 26 to 49 years, with an average of 13 years of coaching experience, and a range from 3 to 20. Four coaches were certified under the National Coaching Certification Program in Canada (NCCP: www.coach.ca) and two had no certification.

Procedure

Following institutional behavioral ethics approval, the directors of soccer and basketball associations were contacted by e-mail, informed of the nature of the investigation, and invited to participate. Once consent was obtained from the directors of the association, they invited their youth coaches to participate. Nine youth sport coaches (three in soccer and six in basketball) attended an introduction meeting. After this meeting six coaches remained. The soccer season is significantly shorter than the basketball season (3 months compared to 6 months), thus, time constraints were a bigger concern for the soccer coaches and resulted in fewer participants from this sport.

A 2-hr workshop was arranged for the participants. Following the protocol developed by Carron and Spink (1993), the workshop was divided into four stages (introductory, conceptual, practical, and intervention) where the researchers explained the rationale of the program, presented a conceptual framework, collaborated with the participants to create practical interventions, and implemented these interventions with the practitioners. The first three stages took place during the workshop while the intervention stage occurred at practice facilities during the season.

Introductory stage

In this stage, the research coordinator explained the rationale for the program to the youth sport coaches. Participants exhibit greater motivation and adherence in intervention programs if they understand the program rationale (Carron & Spink, 1993). Participating coaches were presented with the importance of positive coaching in building an environment that promoted developmental outcomes. This approach to conducting intervention research with coaches has a well-established tradition in the literature. Starting in the mid 1970s (Komaki & Barnett, 1977; Rushall & Smith, 1979), research studies have been published in which coaches were provided with training in an attempt to modify targeted behaviors, and in some cases the impact of these changes on athlete outcomes were measured (e.g., Coatsworth & Conroy 2006; More & Franks, 1996; Smoll, Smith, & Cumming, 2007).

Conceptual stage

In this stage, the coaches were presented with the conceptual frameworks of the study, which in our case included the principles of the PYD and the life skills approaches, as well as the goals of athlete development (4Cs). In addition, principles of positive coaching (MAC; Smith et al., 2007) were used to encourage participants to build positive interactions with athletes. These principles also encouraged coaches to reflect upon their interactions with

athletes on and off the court/field. This stage is beneficial for simplifying complex constructs, clarifying how individual components relate to each other, and making it easier to identify the focus of the interventions (Carron & Spink, 1993).

Practical stage

This stage involved creating activities that promoted youth development. This stage allowed coaches to become active agents in developing practical strategies to increase commitment and duration of behaviors. A participatory research (PR) approach was used to ensure active engagement of youth sport coaches at the practical stage. PR is a collaborative approach that encourages the researcher to include nonacademic participants in the production of scientific knowledge (Kemmis & McTaggart, 2000).

In this stage, the researchers brainstormed with the coaches to create activities that promoted developmental outcomes. The coaches were asked to identify their athletes' strengths and suggest activities that would address important issues in their community. The coaches thought that promoting health, education, and empowering women were the three most important goals to address in their community. These choices were consistent with a document prepared by the Sport for Development and Peace International Working Group (SDPIWG) that looked at developmental outcomes across different countries, including Canada (i.e., SDPIWG, 2006).

As a way to stimulate reflection and guide the coaches in the process of identifying practical strategies, the coaches were shown an example of how sport could be used to address societal issues. The research coordinator acted as a facilitator to appraise the goals chosen for the project and ensured the strategies followed the principles and objectives of the conceptual frameworks proposed in the study. Four sport-related activities were developed during this stage of the workshop.

Intervention stage

In this stage, activities created during the practical stage were carried out with the youth teams at practices throughout their regular season. The four activities were implemented at the location where the teams practiced. They lasted approximately 45 min and were evenly distributed throughout the teams' regular season, taking place approximately every 4 weeks. The activities were called: (a) practice with college athletes, (b) healthy team meal, (c) co-ed practice, and (d) hoops for health fundraiser.

The practice with college athletes aimed at promoting education among youth athletes. In this activity collegiate athletes ran a practice that was followed by a discussion about the importance of education. Prior to the activity, the collegiate athletes were instructed about the purpose of this presentation. The practice and the discussion were adapted to the players' skill and age levels, and the collegiate athletes matched the gender, ethnic, and racial make-up of the youth athletes. This made it easier for the youth to identify with the collegiate athletes and likely stimulated the question and answer period that followed.

The healthy team meal activity was aimed at promoting health by engaging the players in decision-making processes about healthy eating habits. In this activity youth players purchased food for a pre-game team meal. First, coaches and the research coordinator talked to the players about healthy food choices and the importance of eating balanced meals. Health Canada's *Eating Well with Canada's Food Guide* brochure was handed out and used as an outline. Second, the research team and the coaches took the players to a grocery store, where players were allowed to choose and purchase food items for a pre-game meal. Third, the players, the coach, and the research coordinator met and had a team meal together. Finally, during the team meal the research coordinator and the coaches led a discussion about examples of good

and bad food choices based on what the players had purchased. Healthy choices were praised and examples of healthy alternatives were discussed when the team made unhealthy choices.

The co-ed practice was geared towards empowering women. In this activity boys and girls practiced together. Coaches and the research team felt that interacting and practicing with the opposite gender would increase mutual respect and promote equity for both the boys and girls. For this to occur, coaches matched boys and girls teams with similar ability levels. For example, the AAA U15 boys' basketball team practiced with the AAA U17 girls' basketball team. Coaches felt that an equitable competitive level during the practice would help build competence and confidence on their physical, technical, cognitive, and tactical abilities. During this activity, the youth players ran drills chosen by their coaches. The practice involved mostly passing drills so that boys and girls had to rely on one another to complete the drills. After the activity, coaches talked to their players about the importance of teamwork and running appropriate plays, stressing gender equality.

The goal of the hoops for health fundraiser¹ was to promote community engagement in the promotion and maintenance of active lifestyles. In this activity the youth players held a fundraiser and donated sporting equipment to a community center that primarily assisted underprivileged youth who typically do not engage in physical activity. For the fundraiser, the children asked their family members, teachers, friends, and neighbors to donate a small amount of money for each free throw they scored at a free throw contest. The players used the money to purchase sporting equipment and donated it to a community center as a way to further promote physical activity. During the donation ceremony the youth players held a basketball workshop, supervised by their coaches, for members of the community.

Instruments

Four qualitative data collection methods were used: semi-structured interviews, pre- and post-intervention forms, research assistants' field notes, and a reflective journal. Of these methods, semi-structured interviews were the primary source of data and the data collected using the other methods provided context to the interviews. Qualitative methods is the recommended approach for collaborative action research studies because it takes input from the participants regarding their experiences and opinions about the study in order to adapt the research to the needs of the population under investigation (Israel, Eng, Schulz, & Parker, 2005).

Semi-structured interviews

Each coach participated in a semi-structured exit interview that took place between 10 and 15 days after the last activity. The interview was guided by 14 questions. The four opening questions were designed to initiate the discussion and introduce the main topic of the interview (e.g., What is your outlook on coaching children?). The seven key questions focused on coaches' perceptions of the activities and how they impacted the players (e.g., What did you feel the athletes gained from the activities? How confident did you feel delivering the activities? How could the activities be improved?). A summary question was included to obtain their opinions of the intervention program (In your opinion, what are the three most important qualities that you felt emerged from this program?). Finally, two concluding questions allowed for the participant to add any information, ask questions, or share any concerns.

Pre and post-intervention forms

Pre- and post-intervention forms were used as an ongoing evaluation of the study where participants communicated their thoughts and perceptions of the activities.² Pre-intervention forms were completed by the coach immediately before each activity. This form was used to

gain information about the coach's perceptions of the team's environment (e.g., injuries, player absences, recent win/loss record, team climate) and the coach's perception of the players' attitude towards the activities. The post-intervention forms were completed 1 week following each activity, which allowed the coaches to meet their players once or twice before assessing attitude changes. The post-intervention form allowed coaches to provide their perceptions of players' thoughts about the activities and their influence on their player's attitudes and behaviors.

Research assistants' field notes

Twelve undergraduate students were selected as research assistants (RAs) and were trained for 12 hr by the research coordinator to identify and describe meaningful interactions and processes of the coaches. The RAs were taught the models and principles of youth development, and given examples of positive youth sport coaching behaviors. Their comprehension of the subjects was assessed through weekly written reports on the topics addressed in the sessions. The RAs observed the activities with respect to contextual and behavioral information. RAs were instructed to make short-hand notations during the activities and elaborate on their field notes immediately following each intervention. The notes were written in essay form and e-mailed to the research coordinator within 24 hr following the activities. These notes provided a description of the environment and explained what happened during the activities.

Reflective journal

A reflective journal was kept by the research coordinator. Personal observations and opinions were written in the journal after every meeting with the research assistants, coaches, and directors of associations. Notes on other forms of communication (e.g., phone calls and e-mails) were also added to this journal. It was used to keep track of all aspects of the study and record the interaction between the coaches and the research coordinator.

Data Analysis

The interviews were transcribed verbatim resulting in 81 pages of single-spaced interview data. Minor edits were made to ensure confidentiality and improve clarity of the statements. The analysis of the interview data followed three steps: (a) identifying meaning units, (b) classifying them into higher-order categories, and (c) breaking them down into lower-order themes (Côté, Salmela, Baria, & Russell, 1993). Analysis of the higher-order categories was done deductively, while analysis of the lower-order themes was done inductively (cf. Miles & Huberman, 1994).

The first step in the analysis was to break down the interviews into textual sections that reflected a single idea called a meaning unit (Côté et al., 1993). A total of 311 meaning units were identified. In the second step of the analysis, the meaning units were grouped into higher-order categories that focused on team characteristics, coach background and philosophy, project outcomes, and project perceptions. The final step was then to categorize each meaning unit into a lower-order theme based on its content. In this step meaning units were tagged independently, then similar tags were grouped and labeled with lower-order themes that best described the cluster of tags (Côté et al., 1993). A total of 51 lower-order themes were created in this step of the data analysis.

Trustworthiness

Five techniques were selected to address trustworthiness in the present study: (a) prolonged engagement, (b) peer debriefing, (c) triangulation, (d) member checking, and (e) peer review (Miles & Huberman, 1994; Pitney & Parker, 2009).

Prolonged engagement was achieved by the research coordinator attending pre-season try-outs, practices ($n = 46$) and games ($n = 3$), during the season, and all study activities. Peer debriefing took place when the research coordinator updated the second and third authors with weekly developments. The research coordinator had 10 meetings with the other authors; these meetings lasted between 15–40 min. Throughout the project the research team explored new ideas and discussed the techniques and procedures used in the intervention stage and the data collection.

Triangulation was established by using the four methods of data collection previously described (i.e., semi-structured interviews, pre- and post-intervention forms, research assistant field notes, and a reflective journal). Member checks were used by providing a verbatim transcript of the interview to each participant so they could correct errors of interpretation, clarify ambiguous quotes, and add information. All coaches agreed to the transcript without any modifications. Finally, peer review, or check-coding, took place between the authors during the data analysis phase. The first and second authors met to discuss the higher-order and lower-theme coding. Once they achieved agreement, the coding was sent to the third author to review. Every revision by the third author triggered new meetings between the first two authors. In total, 16 revisions took place before consensus was achieved.

RESULTS

The total number of meaning units from the interviews was 311 of which 21 (6.75%) related to team characteristics, 80 (25.7%) related to coaching background and philosophy, 112 (36%) related to project perceptions, and 98 (31.5%) related to project outcomes. As the primary purpose of the present study was to assess coach perceptions about the impact of the intervention, only the results specific to the project outcomes category are presented. This category was divided into 18 themes, which were related to athlete outcomes, team outcomes, and coach outcomes (Table 1). The results—organized around these dominant themes—are explained with the use of interview quotations and supplemented by data obtained through the three other methods. Each quotation will be followed by a coach label (e.g., C1–C6) to identify the participant who provided the quotation.

Athlete Outcomes

Athlete outcomes included what participants felt their youth players gained as a result of participating in the intervention program. This included improved competence, confidence, connection, and character/caring.

Higher competence was observed in the social, cognitive, and academic domains. Youth coaches thought their athletes learned interpersonal skills, cognitive abilities (e.g., decision making), and seemed more interested in school.

Two of the kids in particular started talking about ‘I can still play basketball when I’m in university.’ So I asked them: ‘So you’re going to university?’ They said: ‘Well . . . yeah . . . I think so, because I can play basketball.’ I said: ‘But you have to understand, you are going to university not just to play basketball, you are going to get an education’ . . . This was very good because the dialog was there. The kids had good questions. I have some kids on my team that I think already aspire to continue in school. But other kids have problems in school, so their mind set might not be on education; these were the ones to whom I was talking about university down the line. So [the activity] could have changed their mentality about education. (C2)

Table 1
Frequency of Meaning Units Assigned to the Themes in the Project Outcomes Category

Category: Project outcomes	Coaches						TOTAL
	C1	C2	C3	C4	C5	C6	
(1) Athlete outcomes							
(a) Athlete personal growth	2	2	2	1	1	0	8
(b) Athlete awareness and importance of health	1	3	2	3	1	2	12
(c) Athlete awareness and importance of education	1	1	3	2	2	1	10
(d) Athlete learning from other gender	0	0	0	0	2	1	3
(e) Athlete respect for other gender	3	2	2	0	0	0	7
(f) Athlete respect	1	0	0	0	0	0	1
(g) Athlete relationships	1	0	2	0	0	0	3
(h) Athlete confidence	1	0	0	0	0	5	6
(i) Athlete leadership	0	0	1	0	0	0	1
(j) Athlete commitment to the team	1	0	0	0	0	0	1
(k) Athlete work ethic	1	0	1	0	0	0	2
(l) Athlete enjoyment	0	0	1	1	0	0	2
(m) Athlete dialog	0	4	1	0	0	0	5
(2) Team outcomes							
(n) Team communication	1	0	0	0	1	1	3
(o) Team cohesion	6	0	2	3	1	2	14
(3) Coach outcomes							
(p) Coach better understand players	2	3	0	0	1	0	6
(q) Coach learning	1	1	3	2	2	1	10
(r) Coach relationship	1	0	0	3	0	0	4
TOTAL							98

Increased confidence was observed with youth athletes now believing they could play their sport at the varsity level.

After [one of the] activities I heard my players talking about their future in university, and seeing themselves there. It's funny because one of the girls made a comment when we were watching a college game: 'I can see myself doing that.' That means it doesn't take much, you keep doing your studies, you do well in school, and the next thing you know you're playing high school then university. (C6)

Connection was built through positive bonds with their peers and coaches.

I have some [players] that are French and they have to speak English to everybody else. And what ended up happening in [one] activity was that even the girls that go to English schools ended up talking French, practicing their French. It went both ways and then they realized it is fun doing that. I noticed every time we did a social event, that's what happened, and it wasn't the same girls always sitting together. Every time we go to a restaurant they're sitting with different people. (C6)

Finally, character/caring was observed by the coaches when their athletes showed increased moral values such as sportspersonship and respect towards women, responsibility with their schedule, and when they volunteered with children from their community. One of the coaches said: "Since the activities I noticed a lot of them have not been skipping practice. If they have homework, they are doing it at home before practice or coming and doing it here" (C5).

Another coach mentioned he felt his players were generally more aware of issues related to their community.

The most important qualities I felt emerged in this project were dialog and awareness. The kids had a lot of questions. The more questions, the more talk, the more knowledge. That I think is the key to all these different activities we did. The kids are more aware and there is less intolerance to different things. (C2)

Other coaches emphasized the caring aspect of this competency.

[One] activity was a nice way for players to give back to their community and show what they've learned. I saw a couple of times players encouraging the kids from the community by saying: 'Come on, you can do it.' They gave confidence to the kids. It was really nice to see. (C5)

I think one of my players who participated in the [hoops for health fundraiser] gained from it. . . . That experience was good for him especially because it was locally, so it's not just something he sees on TV. It was actually five-ten minutes from his house and he was able to see what was going on. . . . All kids that were there seemed to have enjoyed it a lot. I thought our kids interacted pretty well with the children from the community center. (C6)

Team Outcomes

Team outcomes included what participants felt their teams gained as a result of the intervention. This included improved team cohesion and team communication. Five of the six coaches felt the project improved their team's cohesion by helping their players interact and get to know each other.

The nutrition activity definitely helped the team. Just going into the grocery store early in the season was a good bonding activity. . . . when we were walking to the grocery store, I think a couple of the kids were talking and bonding. (C4)

The activities we did as a team outside of practice were a bonding experience for some of these guys. . . . There really isn't much bonding outside of basketball practice. . . . It's been really beneficial for our team to have activities outside of practice. (C5)

These results were supported by the pre- and post-intervention forms where the coaches noted increased team cohesion. "Since the [previous] activity the team is more united" (C3). "One unique thing that happened since the previous activity is that the players are closer to each other" (C4).

Three coaches felt the project improved their athletes' communication skills. Coaches felt the novelty of the activities required the players to communicate better and helped to identify leaders in the group. For example, one coach said: "[The activities] definitely provided communication between the players. You even saw a couple of guys step up and take leadership" (C5). Another coach also said the following:

Communication is another quality I felt emerged from this program. . . . when you are doing activities that you are not used to and there are a lot of things that you need to do that you don't normally do, communication becomes a key. (C1)

Coach Outcomes

Coach outcomes included what participants felt they gained as a result of participating in the intervention. This involved being better prepared to promote life skills through sport, better understanding their players, and improving their relationships with other coaches.

Four of the six coaches stated that the project better prepared them to promote life skills. “As a coach I feel better prepared to use the soccer environment to promote different skills” (C1). “I think I gained from the project as a coach, [these activities] are definitely something I will add to the way I coach” (C5). Another coach said the following:

I think I gained from this project because, when it comes to promoting health, I know what to do next year. I can do it again since I learned. The kids will benefit from it. I would do it two or three times next year . . . (C3)

The interview also indicated that as the season progressed the coaches switched their emphasis from winning to promoting life skills. At the beginning of the season, one coach mentioned he was concerned about losing practice time.

Honestly, when we first started doing this I didn't think it was worth the time, worth the effort, and you know, you are going to be taking away from my practice time . . . , but as we did the different activities and the questions and the dialog started to emerge, I saw how helpful and beneficial it was for the kids; that it's not about me, it's truly about them. (C2)

Reflective journal entries supported this behavioral change indicating some coaches were hesitant to implement the activities early in the study. A high number of cancellations were registered for the first two activities (six cancellations in 12 activities). In contrast, only two activities had to be rescheduled after these. As the season progressed coaches were clearly more supportive of the activities.

Three of the six coaches felt the project helped them better understand their players. They felt the activities promoted a dialog and better communication between coach and youth players. In addition, coaches felt that knowing more about their players helped them better deal with the players' needs. “These were activities that allowed us to see the players in situations they don't normally get exposed to. So it helps to see a side of them that you don't normally see” (C1). “The project showed me that kids can start seeing things differently. It builds something in me that I pass on to them and I get it for whatever number of years I coach after this” (C5).

[The project] has helped me deal with the questions the kids have and see a different perspective of how the kids are. I see them three times a week and it's mostly basketball, but sometimes it's life too, because I'm also a role model to these kids. . . . The questions they had after the activities has opened my eyes to how the players are and how they think. . . . [The project] has helped me deal with the kids at a non-coaching level. More of a life level. . . . This has helped me deal with them, answer their question, and see a different perspective of the child that I had never seen before . . . (C2)

RA field notes also indicated some coaches improved their ability to deal with their players. In particular, field notes regarding the behaviors of one coach indicated a more positive approach during the later activities. In the first activity one RA observed “the atmosphere created by the coach prior to the activity was not one for positive youth development. The coaches often raised their voices with the athletes and usually gave criticism instead of praise.” Later in the program, when boys and girls practiced together, another RA noted that the same

coach “was very careful about choosing his words, always saying ‘Pass it to your person,’ or ‘Everyone stick to your man or woman.’” Similar field notes regarding the behaviors of another coach also showed increased ability to deal with his players. In the first activity one RA observed “that the coach wasn’t being enthusiastic at all about the activity. This may have had an effect on the kids.” In the second activity of the project, the RA noted that “the atmosphere was quite positive. The athletes seemed to be enjoying themselves. . . . The coach was calm and seemed to be liked by his players. He did not talk much and let his players take charge and make the decision for themselves.”

Two coaches felt that the program and the activities improved the relationship between the coaches and their assistant coaches, and between the head coaches in the association.

I enjoyed the activities. It’s something different, not only for the players but for the coaches as well. It helps to bring the coaches closer together. . . . These activities let you integrate your view and learn to work together. As you do activities that you don’t normally do, you tend to develop the same perspective. You understand why the other coach is saying something, you remember the experience you had together. (C1)

I think [the activities] also helped the relationship between the coaches. Just getting us together on a Saturday, where we are just standing around watching our kids. It allows us to communicate what is going on. . . . So it helped just getting the coaches together. (C4)

DISCUSSION

The purpose of the present study was to investigate coach perceptions about the impact of a coach training program designed to promote youth developmental outcomes. Activities were created through the collaborative effort of the research team and six trained youth sport coaches. Results are compared to youth development, coach training, and youth coaching literature.

Over the past decade, researchers have begun to examine how the sport environment and the coach can impact youth development (e. g., Camiré et al., 2011; Holt & Sehn, 2008; Petitpas et al., 2004; Vella et al., 2011; Zarrett et al., 2008). For example, Zarrett et al. and Holt and Sehn found that youth who participated in PYD sport programs scored better in the 5Cs and learned important life skills such as initiative, teamwork, and social skills. In addition, the work from Camiré, Petitpas, Vella, and their colleagues offered coaches and sport administrators guidelines for building programs that promoted PYD through sport. The guidelines included developing a coaching philosophy, implementing developmental strategies in practice, and building a positive coach-athlete relationship. These studies are noteworthy because they are among the first empirical attempts to explicitly connect sport to youth development. The current study extends this line of research in several ways. First, the current study went beyond suggesting guidelines to coaches by developing activities that promoted positive youth outcomes through sport. Second, participants in the current study did not belong to a sport association that explicitly focused on youth development. Third, coaches in the current study were trained in the principles of positive coaching (cf. Smith et al., 2007) as a way to achieve youth outcomes through sport. Finally, the current study included participants as active agents in the training process and creation of the activities.

The present study created activities to promote youth development by incorporating principles of PYD and positive coaching into a standardized workshop protocol (cf. Carron & Spink, 1993). The changes made to the standardized workshop protocol were in line with suggestions by Camiré et al. (2011). Four activities accrued from the workshop: practice with college

athletes, healthy team meal, co-ed practice, and hoops for health fundraiser. To our knowledge this is the first study to provide specific descriptions of practical activities that can promote youth development through sport. Moreover, in a recent exploratory study, Boon and Gilbert (2010) interviewed youth soccer coaches in the United States on ways to promote life skills through sport. Interestingly, Boon and Gilbert's participants suggested activities similar to the ones created in the current study. However, Boon and Gilbert did not investigate the impact of such activities. Still, their findings suggest that the activities developed in the current study may be effective ways of fostering youth development across typical youth sport settings.

In addition, participants in the current study did not belong to sport associations that explicitly focused on youth development. Previous studies in PYD in sport investigated the outcomes of sport programs that focused on youth development (i.e., Holt & Sehn, 2008; Petitpas et al., 2004). This posed an additional challenge for the current research team as the participating associations (especially the basketball association) were highly competitive sport associations that focused on winning and developing their players' athletic skills. This highlights the positive impact of the workshop protocol, which was successful in changing coaches' attitudes towards promoting life skills through sport and creating practical activities that successfully promoted athlete development (the 4C's).

In the current study participants were trained on the principles of positive coaching as a way to enhance positive outcomes for youth. Prior studies in youth development through sport investigated common characteristics of coaches with previous formal PYD training (e.g., Holt & Sehn, 2008) or coaches with no PYD training (e.g., Camiré et al., 2009) as a way to identify how positive outcomes were promoted through sport. The current study differed because it proposed a training intervention that taught coaches with no previous PYD experience how to promote youth development through sport. Coaches were trained during a 2-hr workshop and findings supported that it successfully changed coaches' behaviors and attitudes. Changes included focusing on developing skills, using a positive approach to coaching, fostering a positive environment, including participants in decision-making processes, and self-monitoring, which are in line with suggestions by Smith, Smoll, and colleagues (1979, 2002, 2007) on how to increase youth's self-esteem, self-worth, competence, enjoyment, and adherence to sport.

A key aspect for the workshop's effectiveness was the inclusion of participants as active agents in the learning process and creation of the activities (PR approach; Kemmis & McTaggart, 2000). Although formal coach education programs have existed for nearly 40 years, only recently has there been a critical discussion about learning frameworks that have guided the development of these programs (Cushion, Armour, & Jones, 2003; Trudel & Gilbert, 2006). Much of the traditional large-scale coach education programs around the world have been designed from an acquisition framework, where knowledge was given to a coach. Although sometimes acute changes are found in coaching behaviors or athlete psychosocial outcomes following participation in this type of approach to coach training, there is little evidence that it has any durable or significant impact on actual coaching effectiveness (Trudel et al., 2010). In contrast, a participation approach to coach training views knowledge development as a social process that is situated in the context of coaching practice. There is some evidence from the coach development literature supporting the value coaches ascribed to this participation approach to coach education (Gilbert, Gallimore, & Trudel, 2009; Trudel et al., 2010). The current study was an example of a small-scale coach training program that was aligned with a participation approach to coach development. After a brief introduction to the project and principles of positive coaching, the youth development strategies were created in collaboration between the research team and the coaches to fit the practical constraints of their specific coaching contexts. The real strength of this participation approach to coach development is

that the PYD coaching strategies created were clearly aligned with the coaches' personal philosophies. In fact, this was one of the key recommendations in a recent review of PYD and youth sport (Holt, 2011). The present study provides a practical evidenced-based example of this recommendation.

Results showed that the coaches implemented strategies that were consistent with the youth development principles, such as establishing norms that promoted, helped, and empowered youth by involving them in the decision-making processes (Catalano et al., 2004; Smith & Smoll, 2002; Smith et al., 2007). Although no direct measures of the 4Cs of athlete development were recorded in the present study, the results showed perceived growth in coaching knowledge and athlete outcomes related to athlete development. This further demonstrates the value of designing coach training initiatives that recognize the social and situated nature of coach learning as a way to achieve positive outcomes for youth sport participants (Gilbert et al., 2009).

Although the present study incorporated many new ideas in its creation and delivery of youth development interventions, limitations must be acknowledged. These limitations are presented in an effort to assist researchers when designing future coach training interventions aimed at improving development outcomes in youth sport settings. First, the demographic profile of the coaches was fairly homogeneous. All participants were male coaches and coached in the same community. Five coaches coached basketball and only one coached girls. Ideally, a more diversified group of participants would have been included. Second, all coaches volunteered to participate in the study. The willingness to participate may reflect an awareness of the importance of developing life skills and an openness to the intervention program, which may not be representative of the entire youth coach population. Third, the coaches were only observed through the course of one season. Follow-up interviews and observations across multiple seasons would provide information regarding maintenance of learning effects resulting from the training program. Fourth, the youth athletes' perceptions were not assessed, nor were direct measures of growth in athlete development (4Cs) outcomes utilized in the study. Future research may use longitudinal assessments to investigate how much of the knowledge is retained and if the behavioral changes are sustained over multiple seasons. In addition, other studies may include coaches from both genders and different sports, as well as assess youth perceptions and/or their development under the 4Cs framework. Horn's (2008) review of measurement instruments used in coaching research provides a good starting point for researchers wanting to add athlete outcome measures to future studies. Finally, if sport associations make similar workshops a requirement for coaches, other studies may investigate the impact of such training programs on coaches who are not aware of the importance of life skill development or are not as open to an intervention program of this nature.

In conclusion, the youth development in sport research is still limited. More studies are necessary to better understand how the principles of youth development can be applied to sport, and how programs can be designed to teach coaches how to integrate youth development principles into their practice. This project was an early attempt to develop such a program. Future studies can build on the protocol used in this study by looking to improve its procedures, create new activities, and more broadly disseminate the importance of promoting life skills with youth athletes.

NOTES

1. This activity was only performed with the basketball teams due to time constraints with a shorter soccer season.
2. The pre and post-intervention forms are available upon request to the corresponding author.

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