Abstract

Purpose: Youth sport has the potential to be one of the healthiest and most beneficial structures that children can partake in. Participation in a combination of adult-led and peer-led sport structures appears to lead to favorable outcomes such as enhanced physical fitness as well as social and emotional development (Fraser-Thomas, Côté, & Deakin, 2005). The purpose of the present study was to examine the subjective and objective experiences of 27 recreational male soccer players between the ages of 10 and 12 (M = 10.11, SD = 0.32) across adult-led and peer-led sport structures. Method: Direct video observation and experience rating scales were utilized in an effort to shed light on the impact of adult-led and peer-led sport structures on the same athletes. Results: In the adult-led structures, youth experienced high levels of effort and concentration, and spent more time being physically or mentally engaged. Meanwhile, youth experienced high rates of prosocial behaviors, sport-related communication, as well as general communication during the peer-led structures. Conclusions: The results of the present study indicate that rather than one approach being superior to the other, both adult- and peer-led sport structures have the potential to yield unique benefits towards children’s positive experiences in sport.

Keywords: positive development, prosocial behavior, group dynamics, child interactions
Examining Young Recreational Male Soccer Players’ Experiences in Adult- and Peer-led Structures

To engage youth, researchers and practitioners have been steadfast in attempting to identify and create environments that promote physical and psychological well-being. Sport is often suggested as a potential contributor to positive youth experiences, as during sport, youth experience enjoyment, effort, and concentration toward challenging goals (Larson, 2000). For these reasons, sport represents a fertile ground for examining the developmental experiences of youth. The general purpose of the present study was to examine the subjective and objective experiences of the same athletes across adult- and peer-led sport structures.

Although there is a litany of research on issues that influence the quality of children’s experiences in sport such as participation motivation (Allen, 2003), peer acceptance (Daniels & Leaper, 2006), and coach behavior (Erickson, Côté, Hollenstein, & Deakin, 2011), the structures of youth sport (i.e., adult- versus peer-led) have largely been ignored. This may explain why the majority of interventions aimed at improving youth sport programs have focused on altering the behaviors of adult (e.g., instruction, reinforcement) rather than changing the setting in which youth sport occurs, which may be more effective for improving interpersonal interactions and experiences. In fact, it has recently been asserted that research exploring how positive youth development is facilitated through sport ought to be conducted (Taylor & Bruner, 2012). Furthermore, the researchers noted that, to date, few studies have been conducted regarding the specific factors (e.g., enjoyment, effort, and concentration) that affect developmental experiences in youth sport. The need to investigate the influence of sport structures (adult- versus peer-led) is further underscored by the fact that youth sport consists of a wide range of structures that might
lead to different experiences and outcomes. For example, youth might engage in playful games, practices, or competitions, each of which might facilitate different developmental results.

One way to distinguish the different structures of youth sport is by considering the amount of instructional control and input that adults have over the structure (Côté, Erickson, & Abernethy, 2013). At one end of the continuum are structures in which adults have total authority in a completely controlled environment, such as an adult-led practice. At the other end of the continuum are structures in which there is no formal instruction from adults and youth are left to govern themselves in a peer-led setting. After a review of literature, Côté et al. (2013) noted that youth sport structures that include both adult- and peer-led settings may be most favorable, particularly towards children’s motivation for continued participation. A combination of adult- and peer-led structures may also nurture talent by fostering different aspects of an athlete’s performance. Specifically, informal structures led by children may encourage creativity on the part of the participants as they adapt the rules and roles of the game. More formal structures led by adults may facilitate discipline as children must meet the demands of the structure. Thus, diverse participation in a wide range of sport structures may expose youth to quality early learning experiences that are critical for fostering motivation to continue participation in later years. In spite of these potential benefits, little is known regarding the potential differences in how youth experience adult-led and peer-led sport structures.

**Adult-led and Peer-led Structures**

While youth sport advocates might endorse an adult- or peer-led sport structure, objective comparisons of the benefits of these unique sport structures are scarce. One study that attempted to shed some light on this issue examined four high quality adult-led and peer-led programs outside of sport (Larson, Walker, & Pearce, 2005). In each program, 10 to 13 youth and one to
two adult supervisors were interviewed and observed. In the adult-led programs, the adults
effectively facilitated the development of specific skills and talents, while the peer-led programs
led to high degrees of ownership and empowerment for youth, and also enhanced leadership and
planning skills. In the end, the researchers concluded that both approaches offer unique benefits
and may be useful in creating optimal youth programs. Although this study provided insight
about the potential benefits of adult- and peer-led sport structures, the researchers were only able
to examine four programs using qualitative interviews with a subset of the participants.
Therefore, further research is required to make more generalizable conclusions about the
influence of adult- and peer-led sport structures.

In one of the few studies to examine adult- and peer-led structures, Chalip and colleagues
(Chalip, Csikszentmihalyi, Kleiber, & Larson, 1984) monitored the experiences of adolescents during their daily lives, part of which included organized sport, informal sport, and physical education classes. Data was collected using the experience sampling methodology, which aims to provide systematic reports of individuals’ subjective experiences at various time points (Csikszentmihalyi & Larson, 1987). Compared to other daily structures, participants reported more positive moods during informal sport and gym. Participants also reported higher levels of challenge during all sport structures compared to non-sport structures. In regards to the specific differences between the three sport structures, youth reported feeling more at stake during organized sport structures. Although this study provided some interesting preliminary findings regarding the subjective experiences of youth operating in different sport structures, it failed to provide an in depth description of the objective behaviors to which youth are exposed in such sport structures. Hence, a study isolating the subjective and objective experiences of the
same youth sport athletes in distinct sport structures could substantially add to the existing knowledge base.

**Subjective Experiences**

It has been argued that in order for youth structures to lead to positive experiences, children must find meaning in the structures which they find most intrinsically motivating (Csikszentmihalyi & Larson, 1984). Hence, structures that are highly enjoyable, require high levels of concentration, and challenge the participants to exert high levels of effort have the potential to result in optimal developmental experiences. It has been reported that youth report their lowest levels of intrinsic motivation in places that are most structured and led by adults (Csikszentmihalyi & Larson, 1984). In contrast, they report their highest levels of intrinsic motivation in the places that are furthest from any adult control (Csikszentmihalyi & Larson, 1984). Along with these general findings, youth’s subjective experiences also appear to differ across the various domains that make up their daily lives.

When children are in school, they report high levels of concentration, but intrinsic motivation is extremely low (Csikszentmihalyi & Larson, 1984). During leisure structures such as socializing with friends and watching television, youth feel alert and report high levels of affect and intrinsic motivation, but relatively low levels of concentration and challenge. Hence, similar to schoolwork, leisure structures appear to offer youth some positive experiences, but fail to provide adequate opportunities to experience high levels of enjoyment, concentration and effort in concordance with one another.

One setting that simultaneously offers high levels of enjoyment, concentration, and effort is sport (Larson, 2000). By combining the discipline and concentration required in school with the intrinsic enjoyment that is experienced during leisure time with friends, sport distinguishes
itself from many other structures by offering a rare blend of intrinsic motivation and concerted effort that is virtually unmatched in all other aspects of children’s daily lives (Larson). Although these findings highlight the potential of sport to be used as a vehicle towards promoting positive developmental experiences, the reality is that sport can be experienced in many distinct contexts and more research is required on the impact of different sport structures (e.g., adult- and peer-led sport) on the subjective experiences of youth sport participants.

**Objective Experiences**

Although the behaviors of coaches and parents have garnered considerable attention from researchers (e.g., Côté, 1999, Turnnidge, Côté, Hollenstein, & Deakin, 2013), the behaviors of peers in sport remains a relatively unexplored topic. This is unfortunate because peer interactions play a major role in the developmental experiences of youth, especially in late childhood and adolescence (Brustad, Babkes, & Smith 2001). In sport, positive and negative peer interactions can have a major impact on children’s physical competence (Weiss & Duncan, 1992), global self-esteem (Daniels & Leaper, 2006), and motivation towards physical activity (Allen, 2003).

Recently, researchers have begun to study the impact of social interactions across various sport structures. For example, Bruner and colleagues examined the influence of athletes’ perceived social identity within a sports club on prosocial and antisocial interactions with teammates and competitors. Results indicated that athletes’ within-group affect (i.e., positive feelings accompanying team membership) at the onset of a season positively predicted prosocial behaviors with teammates at the end of the season (Bruner, Boardley, & Côté, 2014). Therefore, an initial positive outlook towards certain sport structures may foster future positive experiences among youth. Group dynamics and social influence might also play a critical role in the
developmental experiences of youth in individual sports, as even in sports where athletes compete on their own, feedback and resources from peers during training nurtures interdependence and cooperation (Evans, Eys, & Bruner, 2012). Together, this new line of research highlights the importance of examining group dynamics and peer interactions across various sport structures.

In one of the rare studies to examine athlete experiences using an observational approach, Flett, Gould, and Lauer (2012) investigated coach and athlete interactions in a sample of underserved boys and girls participating in various baseball structures. The researchers found that programs in the under-14 age group were rated as having significantly less safety, support, and engagement compared to the under-18 and under-12 age groups. Gender differences also emerged as girls softball provided a more positive sporting experience compared to boys baseball. Finally, no differences emerged between the game and practice structures. This innovative study was one of the first to use field observations to directly examine the developmental experiences of young athletes. However, this study examined the experiences of different athletes varying in age and gender. A study examining the experiences of the same athletes participating in various sport structures may add to this growing body of literature. In the few other studies that have examined athlete behaviors in sport, factors such as prosocial and antisocial behavior (e.g., Kavussanu, Seal, & Phillips, 2006), sport-related communication (e.g., Hanin, 1992), and the amount of time spent being engaged during the activity (e.g., McKenzie, 1986) have been identified as important determinants of athletes’ experiences in sport.

**Direct Behavioral Observation**

The interactions and behaviors that occur in youth sport structures play a major role in how participants experience sport. However, specific research efforts designed to evaluate and
understand the behaviors that make up these interactions are lacking. To address this gap in the
literature, Brustad and colleagues (2001) suggested that researchers should draw from a variety
of methods and approaches including direct observation to build on existing knowledge.
Unfortunately, the coding systems developed for studies examining athlete behaviors have been
designed to focus only on a specific set of behaviors such as prosocial and antisocial behavior
(Kavussanu et al., 2006), athlete communication (Hanin, 1992), and levels of engagement
(McKenzie, 1986). As a result, there is currently no observational system capable of capturing a
broad spectrum of athlete behaviors with the sport psychology literature.

In developmental psychology, however, there has been a long tradition of observing and
coding youth behaviors in naturalistic and experimental play settings. For example, Dodge
(1983) developed a comprehensive event recording coding system designed to capture the breadth
of peer interactions in youth play groups. The observational system was composed of 18 main
categories spanning five overarching themes: (a) solitary structures, (b) interactive play, (c)
verbalizations, (d) physical contact with peers, and (e) interactions with group leader. A similar
coding system was developed by Rubin (2001) to assess youth free play behaviors in early and
middle childhood. Rubin’s Play Observation Scale includes five cognitive play categories: (a)
functional (e.g., repetitive motor movements with or without objects), (b) constructive (e.g.,
manipulating objects to construct or create something), (c) exploration (e.g., reading), (d)
dramatic (e.g., taking on a role of someone else), (e) games-with-rules (e.g., basketball) that
youth can engage in alone, parallel to other children, or in a group. The main difference between
these coding systems and the ones from the sport psychology literature is that the former cover a
wide range of behaviors that may occur in both structured and unstructured youth activities. A
synthesis of these coding systems with the coding systems from the sport psychology literature will likely facilitate our understanding of athlete behaviors in various sport structures.

**Purpose**

The purpose of the present study was to determine whether the subjective (i.e., enjoyment, concentration, and effort) and objective (i.e., prosocial and antisocial behavior, sport-related and non-sport-related communication, and levels of engagement) experiences of the same athletes varied in adult- and peer-led sport structures. Specific hypothesis are as follows: (a) In light of the fact that intrinsic motivation and affect appear to be relatively higher in unstructured structures compared to those structured and led by adults (Csikszentmihalyi & Larson, 1984), it is hypothesized that enjoyment will be significantly higher in the peer-led structures compared to the adult-led structures; (b) During adult-led sport structures, youth focus their energy on performing well and winning (Coakley, 1983), which requires high levels of concentration and effort. Therefore, it is hypothesized that both effort and concentration will be significantly higher in the adult-led structures compared to the peer-led structures; (c) Youth report significantly higher rates of negative influences and negative group dynamics in unstructured leisure structures compared to adult supervised structures such as organized sport (Larson et al., 2006). At the same time, overt displays of affection and prosocial behavior are also diminished in highly structured structures led by adults (Coakley, 1983). Thus, we expect significantly higher rates of both prosocial and antisocial behaviors in the peer-led structures compared to the adult-led structures; (d) Structured sport structures are effective at engaging youth over an extended period of time (Larson, 2000). Thus, we expect levels of engagement to be significantly higher in the adult-led structures compared to the peer-led structures; (e) Finally, it is hypothesized that the flexibility and choice that youth are afforded in peer-led structures will
enhance self-expression and lead to significantly higher rates of both sport-related and general communication among athletes (Coakley, 1983).

**Methods**

**Participants**

Participants were recruited from four recreational male soccer teams in Ontario, Canada. All players ($N = 27$) were between the ages of 10 and 12 ($M = 10.11$, $SD = 0.32$) and played in one youth soccer league. One female instructor also played a prominent role in the study by leading the adult-led structures and supervising the peer-led structures. The instructor was a former varsity women’s soccer player at a Canadian university and had accumulated more than 18 years of playing experience over the course of her career. Furthermore, she had coached youth soccer with a similar age group as the study sample for over 9 years.

**Procedure**

Ethical clearance was obtained and all athletes, along with the athletes’ parents, were required to provide written assent/consent prior to participation in the study. Each participating team was videotaped using two wide-angle video cameras, which were set up on opposite sides of the soccer field in order to capture all athlete behaviors and interactions. Athletes’ verbalizations were captured using microphones attached to the video cameras and a mobile parabolic microphone. Each team was videotaped participating in three soccer structures, for a total of 12 videotaped sessions. For each team, the first videotaped session was used to (a) acclimatize the athletes to the presence of the research team and being videotaped, and (b) act as a pilot video to test and refine the observational coding system. The two subsequent videotaped sessions were used for data analysis and consisted of one adult-led and one peer-led soccer structure. All sessions lasted approximately 45 minutes, typical of a youth sport practice. To
counterbalance the effect of which structure the athletes experienced first, two teams were
videotaped participating in the adult-led structure first, while the other two teams were
videotaped participating in the peer-led structure first.

To limit variance within the videotaped sessions, one instructor led all sessions. The
instructor followed the same outline for each structure. Each adult-led structure began with a
quick introduction by the instructor in regards to the goals and formal rules of the structure.
Following, the instructor led each team in 15 minutes of ball control drills. After a short water
break, each team participated in 15 minutes of passing drills typical of a youth soccer practice.
After a second water break, the instructor concluded the adult-led structure with a controlled
scrimmage that included frequent stoppages and debriefings intended to provide feedback and
instruction to the players. Similarly, the instructor initiated each peer-led structure by outlining
regulations of the structure. Each team was then supplied with all of the equipment that was
utilized in the adult-led structures (e.g., balls, cones). The players were instructed to stay within
the field of play in order to ensure they were observable to the cameras. Apart from these
general guidelines, the participants were given complete freedom during the peer-led structure.
To monitor safety, the instructor remained on the sidelines; however, the instructor was
explicitly told to refrain from intervening or influencing the structure in any other manner.
Along with the video observation, the athletes were administered an experience sampling
rating scale designed to assess their subjective experiences twice during each structure. The
rating scales were administered during two water breaks, approximately 15 minutes and 30
minutes into each structure. The scores were averaged for each individual to obtain a more
consistent measure of the athletes’ experiences during each structure.

Measures
Subjective experiences measure. Athletes’ experiences were assessed using a three-item rating scale designed to capture their levels of enjoyment (1 item; “How much do you enjoy what you are doing?”), effort (1 item; “How hard are you working?”), and concentration (1 item; “How hard are you concentrating?”) during each sport structure. The rating scale was adapted from the experience sampling methodology (Csikszentmihalyi & Larson, 1987). The three questions were derived from previous research using a similar methodology with youth participants (Vandell et al., 2005). The athletes responded to each question using a scale ranging from 1 (not at all) to 9 (very). A short three-item scale was utilized in order to maximize efficiency during each 45 minute session. By using this quick measure, the research team was able to efficiently collect data during the structure with minimal disruption.

Objective experiences measure. Athlete behaviors were coded using a new, contextually based coding system designed to capture the breadth of athlete behaviors across various sport structures. The development of this coding system was in accordance with the process recommended for creating a valid and reliable observational instrument for use in sport (Brewer & Jones, 2002). Brewer and Jones emphasized that the behavioral categories of existing coding systems must be carefully reviewed and adapted to the context of use in order minimize the frequency of “uncodable” behaviors and to capture a complete and accurate record of the event under study. The newly developed Revised Athlete Behavior Coding System (R-ABCS) is intended for observation of youth soccer players across varying adult- and peer-led sport structures. The R-ABCS provides an exhaustive list of mutually exclusive behavioral categories. A description of how the behavioral categories were selected for inclusion is discussed below.

Athlete behavior categories. The process of developing the R-ABCS began with the modification of the Athlete Behavior Coding System (ABCS; Vierimaa, 2013). The ABCS
utilizes continuous time sampled recording to measure both the frequency and duration of athlete behaviors. The ABCS is comprised of eight behavioral content categories: (a) prosocial communication, (b) technical/tactical communication, (c) directive communication, (d) general communication, (e) engaged, (f) non-cooperative/disruptive, (g) antisocial communication, and (h) uncodable. In light of the fact that the ABCS was designed to provide an in-depth description of the behavioral profiles of competitive female volleyball players, amendments were required in order to adapt the ABCS to the context of male youth soccer players participating in adult- and peer-led sport structures. First, pilot videos of adult- and peer-led youth soccer practices were reviewed to ensure no behaviors were given undue prominence and no behaviors were mistakenly absent from the original coding system. Moreover, an extensive review of previous coding systems examining participant interactions in sport (Hanin, 1992; Kavussanu et al., 2006; McKenzie, 1986) and non-sport (Dodge, 1983; Rubin, 2001) guided the modification process. The behavior content categories of the adapted coding system included (a) prosocial (e.g., giving teammate high-five), (b) antisocial (e.g., pushing opponent), (c) sport-related communication (e.g., giving instructions to teammates), (d) general communication (e.g., talking about a movie), (e) engaged (e.g., participating in a drill), (f) disengaged (e.g., sitting on sideline), and (g) uncodable (e.g., athlete is out of sight). A summary of the behavioral categories is presented in Table 1, and an in-depth description of the complete coding manual is available from the corresponding author upon request.

Establishing context validity. Members of a panel consisting of a varsity university soccer player, local youth soccer coaches, and a research team including a professor, post-doctoral fellow, and three graduate students with extensive experience in the field of systematic observation were consulted independently and asked to provide feedback regarding the
appropriateness of the behavioral categories contained in the R-ABCS. Upon debriefing, each individual approved the specificity of the behavioral categories.

**Coder training and reliability.** The primary researcher and an independent coder engaged in an extensive process to establish the reliability of the R-ABCS. Following an extensive review of the coding manual, the coders viewed multiple pilot videos while informally discussing how they would code particular behaviors using the R-ABCS. Next, to establish intercoder reliability, each coder coded multiple 10-minute video clips of the pilot footage until an acceptable standard for frequency agreement was achieved. Frequency agreement refers to the total number of times that all coders activate the same behavioral codes within a three second window. The coders were required to meet a minimum agreement of 75% on frequency on two consecutive video segments before being allowed to code videos intended for data analysis (Erickson et al., 2011). The coders successfully met the criteria, averaging 94.5% agreement on frequency between the two consecutive segments.

**Data Analysis**

To compare the subjective experiences of each athlete between the adult-led and peer-led sport structures, dependent *t* tests were utilized to examine whether the two groups scored significantly differently on enjoyment, effort, and concentration between the two structures. Additionally, effect sizes were calculated to indicate the respective strengths of the observed relationships. Effect sizes of 0.20, 0.50, and 0.80 were considered small, medium and large effects, respectively (Cohen, 1988).

The second analysis examined the objective experiences of the same athletes across adult-led and peer-led sport structures. The Observer XT Software was utilized to continuously code the behaviors of each athlete in both adult and peer-led sport structures (Noldus, Trienes,
Hendriksen, Jansen, & Jansen, 2000). Frequencies of prosocial behavior, antisocial behavior, sport-related communication, and general communication were summed independently to provide a total score for each behavioral category. For engagement and disengagement, the amount of time that each individual spent in each category was summed for both structures. To account for the slight differences in structure durations, all of the scores were standardized by dividing the total frequency or duration of each behavioral category by the number of minutes the structure lasted and multiplying by 60 to get a rate per hour. Finally, dependent t tests were employed to determine if the frequency of each behavior displayed per hour by each individual differed between the adult-led and peer-led structures. Likewise, dependent t tests were also used to determine if the amount of time that each individual spent being engaged and disengaged per hour differed between the two structures. Moreover, effect sizes were calculated to indicate the strength of each relationship.

Results

Preliminary Analysis

There were no univariate outliers found in the z-score distribution of the subjective experiences scores ($z < \pm 3.29$; Tabachnick, Fidell, & Osterlind, 2001). Furthermore, the distribution of subjective experiences difference scores between the adult-led and peer-led structures was normal ($z < \pm 2.58$; Tabachnick et al., 2001). As for the objective experiences data, eight video segments consisting of approximately 21,600 seconds of data were coded for each individual athlete. With a sample of 27 athletes, there were approximately 40.5 hours of video coded. Each segment included an average of 1599.63 behavioral events ($SD = 380.76$), or a total of 12,797 behavioral events. Of these 12,797 total events, there were only four incidences of disengaged behavior displayed by the athletes across both adult- and peer-led
structures. All four of these disengaged occurrences involved athletes leaving the playing field and sitting on the sidelines. In light of these extremely rare occurrences, the disengaged variable was deemed irrelevant and removed from any subsequent analysis. One univariate outlier was found in each of the adult-led antisocial behavior and adult-led general communication variables ($z > 3.29, p < .001$; Tabachnick et al., 2001). Moreover, the distribution of the objective experiences difference scores was abnormal ($z > 2.58, p < .01$; Tabachnick et al., 2001) for each of these variables. To remedy the data, square root transformations were carried out on the raw scores of the adult-led antisocial behavior and adult-led general communication variables. The transformations proved successful, as no univariate outliers were found and the data for both variables were normally distributed following the transformations. It should be noted that for ease of interpretation, the raw mean and standard deviation scores will be displayed herein for all of the variables; however, the transformed scores were utilized when conducting the statistical analysis.

**Main Analysis**

**Subjective experiences across sport structure.** In general, participants rated both sport structures very highly in terms of enjoyment, effort, and concentration. The results from the dependent $t$ tests revealed that, on average, participants did not experience a statistically significant difference in enjoyment between the adult- ($M = 8.05, SD = 1.10$) and peer-led structures ($M = 7.66, SD = 1.02$), $t(25) = 1.59, p > .05, d = 0.37$. For effort, there was a statistically significant increase in the adult-led ($M = 8.11, SD = 1.05$) compared to the peer-led structures ($M = 7.63, SD = 1.07$), $t(25) = 2.12, p < .05, d = 0.45$. Likewise, the participants reported statistically significant higher rates of concentration in the adult-led ($M = 7.98, SD = 0.91$) as opposed to the peer-led structures ($M = 7.60, SD = 0.96$), $t(25) = 2.30, p < .05, d = 0.41$. 
Objective experiences across sport structure. The results of the dependent t tests comparing the frequencies of different behaviors revealed that participants displayed significantly more prosocial behaviors in the peer-led ($M = 9.01, SD = 6.93$) compared to the adult-led structures ($M = 3.35, SD = 3.50$), $t(25) = -5.44, p < .001, d = -1.03$. In contrast, antisocial behaviors were displayed significantly more in the adult-led ($M = 2.98, SD = 4.68$) compared to the peer-led structures ($M = 0.78, SD = 1.29$), $t(25) = 2.59, p < .05, d = 0.64$.

Participants displayed significantly more sport-related communication in the peer-led ($M = 101.80, SD = 47.55$) as opposed to the adult-led structures ($M = 78.29, SD = 29.09$), $t(25) = -3.79, p < .001, d = 0.60$. Similarly, there was a statistically significant difference in the amount of communication displayed in the peer-led ($M = 21.12, SD = 21.12$) compared to the adult-led structures ($M = 3.84, SD = 4.55$), $t(25) = -3.97, p < .001, d = -1.13$.

Finally, the analysis comparing the amount of time that participants spent being physically and mentally engaged revealed that participants spent over 93% of their total time being engaged in the adult-led structures, while over 85% of their time was spent being engaged in the peer-led structures. In each setting, athletes spent more time being engaged during the adult-led ($M = 55.98, SD = 1.85$) compared to the peer-led structures ($M = 51.11, SD = 5.03$), $t(25) = 6.04, p < .001, d = 1.29$.

Discussion

The results of the present study illustrate that the experiences of youth across two distinct sport structures are markedly different. Inconsistent with our hypothesis that enjoyment would be higher in the peer-led structures, the findings revealed that there were no statistically significant differences between the two structures. However, effort and concentration were both significantly higher in the adult-led structures. Meanwhile, objective experiences that supported
our hypotheses included higher rates of prosocial behavior, sport-related communication, and general communication in the peer-led structures, as well as higher levels of physical and mental engagement in the adult-led structures. Finally, our hypothesis regarding the frequency of antisocial behaviors was not supported, as youth displayed significantly higher rates of antisocial behaviors in the adult-led structures. Collectively, the analysis indicates that rather than one approach being superior to the other, both adult-led and peer-led sport structures have the potential to yield unique benefits towards children’s positive experiences in sport. Additionally, scores in each sport structure were quite high relative to their respective scales, indicating an overall positive experience across all structures.

**Benefits of Adult-led Sport Structures**

One of the most interesting findings from the present study was the lack of differences in enjoyment between the adult-led and peer-led sport structures. In fact, each structure was rated very highly, suggesting that youth perceive adult- and peer-led sport structures to be equally enjoyable. The high levels of enjoyment experienced in the adult-led structures are somewhat surprising considering the fact that youth have reported higher levels of intrinsic motivation in unstructured peer-led structures compared to those under adult control (Csikszentmihalyi & Larson, 1984). One possible explanation for these results could be that sport is a rare exception to this trend. That is, unlike highly structured adult-led structures from other domains such as school, sport might yield high levels of effort and concentration in addition to enjoyment.

Another possible explanation for the high levels of enjoyment in the adult-led structures concerns the role of the instructor. Adult influence has been identified as a major determinant of children’s positive and negative experiences in sport (Fraser-Thomas, Côté, & Deakin, 2005). Recently, Gould and colleagues reported that a caring sporting environment was associated with
positive developmental outcomes among a group of 239 urban youth from underserved communities (Gould, Flett, & Lauer, 2012). The instructor’s extended experience in the sport of soccer, both as a player and as a coach, may have allowed her to create a positive sport atmosphere that was deemed highly enjoyable by the athletes. Indeed, research has shown that having a competent, caring adult leader in youth sport can contribute considerably towards participants experiencing high levels of enjoyment (MacDonald, Côté, Eys, & Deakin, 2011).

Another benefit of the adult-led structures was that effort, concentration, and engagement were higher compared to the peer-led structures. These findings are consistent with previous research highlighting the ability of adult-led structures to provide youth with an organized environment that encourages engagement and concerted effort over an extended period of time (Csikszentmihalyi & Larson, 1984). Similarly, it has been shown that youth report experiencing higher levels of challenge while they are participating in organized sport structures compared to baseline levels from other daily activities (Chalip et al., 1984).

High levels of effort, concentration, and engagement experienced by youth in the adult-led structures could be the result of formal organization. Indeed, research has shown that young athletes are attracted to order and clearly defined limits in sport, while being deterred by unpredictability and lack of boundaries (Turnnidge et al., 2013). Thus, adult-led structures which follow consistent, orderly patterns (e.g., consistent format, interactions, and discipline) can be attractive to youth athletes. In the light of these findings, Smith and Smoll (1997) recommended that youth sport coaches should organize sport in a way that athletes can predict what they will be expected to do and can comfortably progress through drills and frequent stoppages. Adult-led sport structures may be well equipped to provide these features because they are typically composed of sequences of individual and collective responses to
predetermined adult orders (Coakley, 1983). This point is especially relevant to the present study as the instructor followed a detailed outline during all of the adult-led structures.

**Benefits of Peer-led Sport Structures**

One of the most noteworthy findings from the present study is that the rates of prosocial behaviors were higher in the peer-led compared to the adult-led structures. In fact, the frequency of prosocial behaviors displayed per hour was nearly three times greater in the peer-led structures. In stark contrast, athletes engaged in more than three times as many antisocial behaviors per hour in the adult-led structures. These results are in line with Coakley’s (1983) assertion that visible displays of affection and prosocial behaviors are more likely to occur in peer-led structures due to their informal atmosphere. One possible explanation for this finding is that the flexibility and choice youth were afforded during the peer-led structures may have afforded them more opportunities to engage in positive interactions with peers, rather than simply following directions from an adult. Indeed, children have cited reasons such as wanting to be with friends and the desire to be part of a team among their primary motives for sport participation sport (Allen, 2003). Opportunities to freely interact with peers and develop friendships might be more readily available in peer-led structures, contributing to the greater frequency of prosocial behaviors. Moreover, athletes may have been inclined to engage in positive interactions to ensure the longevity of each structure. Since the adult leader’s only responsibility during the peer-led structure was to monitor safety (not conflict resolution), athletes had to resolve or avoid conflict themselves. By independently dealing with their issues, youth quickly realize that they must interact positively to avoid skirmishes that may have detrimental side effects that jeopardize the short-and long-term future of the structure (Coakley, 1983). Indeed, researchers have suggested that individuals will be more likely to adhere to social
norms and cooperate with one another when they have input forming the rules of the structure and publicly commit to abiding by them (Smith & Smoll, 1997). In light of the fact that participants were given the independence to form their own set of rules during the peer-led structures, it is not surprising that they also displayed more occurrences of prosocial behaviors. Along with yielding higher rates of prosocial behaviors, youth also displayed higher levels of both sport-related and general communication in the peer-led structures. The peer-led structures may have facilitated communication by allowing youth to freely interact with each other. In contrast, communication may have been thwarted during the adult-led structures as youth were required to listen and adhere to the instructions of the adult for a significant portion of the session. These types of settings generally require youth to use a myriad of interpersonal skills throughout the structure, meaning that the success of peer-led structures is often contingent upon participants’ interpersonal skills (Coakley, 1983; Côté et al., 2013). Furthermore, a longitudinal ethnographic study examining children's participation across various social structures revealed that peer-led sport structures teach youth how to use a wide range of communicative skills such as organization, negotiation, and problem solving (Adler & Adler, 1998). By being exposed to these various issues and challenges, youth learn how to effectively communicate with one another and find resolutions to the many complications that arise when they are in control of the structure (Adler & Adler, 1998). The results regarding the high levels of sport-related and general communication in peer-led sport structures are noteworthy given that social development is often stated as one of the primary objectives of contemporary youth sport organizations. The results of the present study suggest that the development of social skills may be naturally fostered during peer-led structures.

Conclusion
The results of the present study illustrate that adult- and peer-led structures offer unique experiences for youth. However, like any empirical study, the present work contains some limitations which need to be considered. Firstly, all of the adult-led structures were led by the same individual, which is atypical of most youth sport programs. Although this was purposely done in order to minimize variation between the sessions, it must be acknowledged that adult-led structures are in large part a product of a variety of leaders who all influence these structures uniquely. Thus, the results of the present study cannot be generalized to all adult-led structures. Future research may address this limitation by examining the experiences of young athletes participating in sport under the direction of a diverse group of adult leaders who differ in experience and teaching style. A similar limitation of the present study is that the results of the peer-led structures cannot be generalized to all peer-led activities. Indeed, even in the absence of an adult leader, peer-led structures may differ based on group dynamics and the characteristics of the youth involved. Therefore, the results from the present study may not be an inherent representation of all peer-led structures. That being said, the present study highlights the need for more research examining these important issues in order to conclude more generalizable findings. Another limitation is that we were only able to record and examine one adult-led structure and one peer-led structure per team. Coding multiple structures for each team may have helped increase the reliability of the present findings. Moreover, coding multiple structures may help address the previously mentioned limitations by examining variables such as the influence of varying adult leaders and youth within the same structure. It will likely take multiple studies examining the experiences of youth across these diverse settings in order to reach reliable conclusions. We hope that the present studies provides researchers with the foundation need to begin examining these important questions.
To advance the present findings, youth experiences must also be examined across different sports to further test the generalizability of the findings. Moreover, it is conceivable that athletes participating in elite levels may have different experiences than non-elite athletes. As such, investigating athlete experiences across varying competitive levels may prove to be a worthwhile endeavor. Furthermore, future researchers may also want to examine female sports, as well as individual sports. Finally, future studies may benefit from using longitudinal designs to investigate how the subjective and objective experiences of the same athletes change over the course of a sport season. This line of research would help to build on the existing knowledge base regarding how youth experience sport and aid in developing sport environments that are most conducive for the psychological and physical wellness of children.

The analysis from the present study suggests that rather than one approach being superior to the other, both adult- and peer-led sport structures have the potential to yield unique benefits for positive youth experiences, a finding that is consistent with the positive youth development literature (Larson et al., 2005). These results may inform sport programmers about the developmental quality of the experiences athletes are exposed to in various sport structures. In turn, this information may be utilized to offer youth a sport experience that combines adult- and peer-led structures. For example, sport programs could incorporate peer-led components into already existing adult-led practices. By offering youth a mix of both adult- and peer-led sport structures, sport programs may be able to appeal to a larger group of individuals. In turn, this may enhance participation as well as reduce dropout across youth sport programs.
References


EXAMINING RECREATIONAL SOCCER PLAYERS’ EXPERIENCES


Table 1. The Revised Athlete Behavior Coding System (R-ABCS)

<table>
<thead>
<tr>
<th>Behavior Category</th>
<th>Behavior Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Prosocial behavior</td>
<td>Behaviors explicitly aimed at helping or benefiting others. Can be both verbal and non-verbal: E.g., giving a teammate a high-five; “good job, bud!”</td>
</tr>
<tr>
<td>(b) Antisocial behavior</td>
<td>Behaviors explicitly aimed at harming or disadvantaging others. Can be both verbal and non-verbal: E.g., pushing an opponent; “you guys suck at soccer!”</td>
</tr>
<tr>
<td>(c) Sport-related communication</td>
<td>Any communication between two participants that is related to the sport structure: E.g., giving instruction to teammates; “pass me the ball”</td>
</tr>
<tr>
<td>(d) General Communication</td>
<td>Any communication between two participants that is unrelated to the sport structure: E.g., making a comment about a car that just drove by; “have you seen that movie?”</td>
</tr>
<tr>
<td>(e) Engaged</td>
<td>Athlete is physically or mentally engaged in the structure and not directly communicating with another participant: E.g., athlete is participating in a drill; athlete is listening to the coach’s instructions between drills</td>
</tr>
<tr>
<td>(f) Disengaged</td>
<td>Athlete is not physically or mentally engaged in the structure and not directly communicating with another participant: E.g., athlete refuses to participate in a drill; athlete purposely goes against the coach’s instructions</td>
</tr>
<tr>
<td>(g) Uncodable</td>
<td>Athlete is out of view for an extended period of time and no reasonable assumption can be made about his behavior: E.g., athlete leaves the field and does not return for the remainder of the practice</td>
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