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The Developmental Experiences of Adolescent Females in Structured Basketball Programs

Expériences liées au développement des adolescentes qui participent à des programmes de basket-ball structurés

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The purpose of the present study was to determine whether adolescent females had unique developmental experiences in different types of basketball programs. The Youth Experiences Survey 2.0 [YES] (Hansen & Larson, 2005) was used to measure the learning experiences of 14 and 15 year old females (n = 212) who were enrolled in a school, recreational, or competitive basketball program. Interviews with organization representatives were conducted to determine the structure of each basketball program (n= 16) from which participants were drawn. One-way ANOVAs and Bonferroni comparisons were used to compare YES 2.0 positive experience scale scores of participants in school, recreational and competitive basketball programs. Results revealed that females in recreational programs had significantly lower scores than those in competitive and school programs on numerous positive experiences scales. Mann-Whitney U tests found that those in school and competitive programs reported higher stress levels. Interview results indicate that four characteristics of competitive and school programs may contribute to participants in these programs reporting more growth experiences: 1) time commitment, 2) coaches' training and background, 3) competition, and 4) volunteer opportunities.

La présente étude visait à déterminer si des jeunes adolescentes participant à divers types de programmes de basket-ball vivaient des expériences différentes sur le plan développemental, selon le programme en cause. On a eu recours au Youth Experiences Survey 2.0 [YES](Hansen et Larson, 2005) pour évaluer les expériences d'apprentissage de 212 jeunes filles de 14 et 15 ans inscrites à un programme de basket-ball scolaire, récréatif ou compétitif. Des entrevues ont été menées avec des représentants d'organismes pour déterminer la structure de chaque programme de basket-ball (n= 16) auquel participaient les joueuses. On a eu recours à des analyses de variance à voie unique et à des comparaisons de Bonferroni pour comparer les cotes des barèmes d'expériences positives YES 2.0 des participantes aux programmes de basket-ball scolaires, récréatifs et

compétitifs. Les résultats ont révélé qu'à plusieurs niveaux de barèmes d'expériences positives, les jeunes femmes qui participaient aux programmes récréatifs obtenaient des résultats plus faibles que celles qui faisaient partie de programmes de basket-ball compétitifs et scolaires. Les tests U Mann-Whitney ont indiqué que les participantes aux programmes scolaires et compétitifs avaient un niveau de stress plus élevé. Les résultats des entrevues ont fait ressortir quatre caractéristiques propres aux programmes compétitifs et scolaires qui aident les participantes à vivre des expériences plus positives sur le plan du développement : 1) l'investissement en temps, 2) la formation et l'expérience des entraîneurs, 3) l'aspect compétitif, 4) les possibilités qui s'offrent de faire du bénévolat.

Introduction

Youth sport programs are consistently reported as the most popular structured leisure activity for youth (Mahoney, Larson, Eccles, & Lord, 2005). Sport programs have been described as unique learning environments with their own 'opportunity structures' to foster positive development (Holt 2008; Larson & Verma, 1999). This is in part due to studies that have found that adolescents report higher levels of concentration and intrinsic motivation in structured sport programs than when engaged in unstructured leisure activities, school, or work (Csikszentmihalyi & Larson, 1984; Larson & Kleiber, 1993).

Correlational studies have supported the notion that participation in structured sport programs during adolescence is linked with indicators of positive development. These studies have demonstrated that youth involved in sport programs score favourably in comparison to youth who do not participate on outcomes such as academic achievement (Broh, 2002), school dropout rates (Mahoney & Cairns, 1997), risky sexual activity behaviour for females (Miller, Sabo, Farrell, Barnes, & Melnick, 1998) and delinquency rates (Mahoney, 2000). However, participating in sports has also been demonstrated to be associated with negative outcomes such as increased levels of alcohol consumption (Eccles & Barber, 1999).

While correlational studies have provided evidence that engagement in sport programs throughout adolescence is linked to positive outcomes, this research has been described as overly descriptive and lacking depth (Larson, 2000). Consequently, a more in-depth understanding of an athlete's developmental experiences in sport have been obtained through qualitative studies. For example, qualitative interviews with 20 young athletes showed that athletes who learned to set realistic goals for themselves in sports consciously transferred this skill to other areas of their life (McCormack & Chalip, 1988). Further, youth described sport as a means of learning that providing maximum effort in everyday life leads to further success. Fredricks and colleagues' (2002) interviews with adolescents also found that many young athletes believed that they learned transferable skills from sports. Interpersonal skills such as how to interact and communicate with others were by far the skills cited most often as athletes reported learning how to work with team-mates to accomplish common goals (e.g., learning to work together to complete a play correctly). Respondents also described developing time management and discipline, which many believed had helped improve their school performance. In a review of studies on life skills development through sport, Gould and Carson (2008) recently suggested that more systematic analyses

of the social and contextual factors that influence personal growth in sport are much needed. Accordingly, this study was designed to determine if youth report distinct growth experiences while engaged in different types of sport programs.

The phrase *youth sport program* is typically applied to the litany of athletic programs that are organized and overseen by adults for youth under 18 years of age (Wiersma, 2005). Sports that operate under this general rubric are often addressed by researchers as if they are a single construct. However, Wiersma states that when looking at youth sport programs it is evident that there are varying types of programs which may uniquely contribute to development. Comparative studies of athletes of different competitive levels provide intriguing findings that need to be investigated more systematically. For instance, Broh (2002) showed that students who played interscholastic sports throughout high school were more likely than intramural athletes to talk with their teachers outside of class in Grade 12. Broh (2002) proposed that interscholastic athletes may have more access and form relationships with teachers and coaches due to the more intensive nature of interscholastic sport.

Studies have also found that males and females experience sport differently across a number of constructs. For example, with respect to motivational orientation males consistently scored higher than females on win orientation and competitiveness, however females were just as high as males on goal orientation (Gill, 1993). Further, females have shown to have lower perceptions of sport competence than males. Interestingly, gender differences in sport experiences start early in life and have been shown to be associated with parents' stereotyped gender beliefs and parents' beliefs in their child's sport abilities (Fredricks & Eccles, 2005). Research has also indicated that male and female athletes may acquire different amounts of recognition for their athletic accomplishments and therefore different growth experiences. For instance, interviews with 18 talented adolescent female athletes who attended a sports academy found that the majority of participants believed that they did not receive the same recognition from their school or community as their male counterparts (Ellis, Riley, & Gordon, 2003). Similarly, Shakib's (2003) study of a female high school basketball team found that team members did not feel that they were recognized in a similar manner for their achievements as the men's basketball team.

Since females appear to have different experiences in sport programs than males, the present study controlled for this variable by focusing on the developmental experiences of female athletes. More specifically, the purpose of the present investigation was to compare the frequency of developmental experiences of young female athletes in 1) recreational community, 2) school and 3) competitive community sport programs. The goal was to elucidate whether female athletes from different sport programs had different developmental experiences. Information on the structure of community and school based sport programs were also compiled to help explain the structural variations between programs.

Methods

Participants

This study utilized two groups of participants. The *athlete group* consisted of 212 14 and 15 year old females who participated on 1) a school basketball team (n = 70), 2) a competitive community basketball team (n = 68) and 3) a community recreational basketball team (n = 74). The school player group came from seven teams. The competitive club group came from seven teams within five competitive programs. Participants in the recreational program came from multiple teams within four school programs. Only athletes whose parents had also signed an informed consent form or were present at the time of the questionnaire administration were able to participate. No team had all their players represented. The second group of participants, the *program respondent group (n = 16)*, consisted of an individual such as a program coordinator or league convener from each organization or school [school (*n* = 7), competitive (*n* = 5), and recreational (*n*= 4)] that delivered one of the structured basketball programs. Each program respondent had intimate knowledge of the basketball program(s) that their organization provided.

Procedure

To recruit participants the principal researcher contacted program coordinators or executive directors of school and community-based basketball programs for 14 and 15 year old females. Arrangements were made for athletes from programs who agreed to participate in the study to complete the Youth Experiences Survey 2.0 (YES 2.0; Hansen & Larson, 2005) and a brief demographics questionnaire. Surveys were completed toward the end of the basketball season to ensure participants had spent a sufficient amount of time in the basketball program to accurately complete the surveys. Prior to completing the surveys the athletes and their parent/guardian completed an informed consent form. The principal investigator then briefly described the demographic form and YES 2.0 to the athlete group. Prior to beginning the survey participants were instructed by the researcher to consider all of their experiences within the current program when completing the YES 2.0 and to only think about the current program while completing the survey. Participants typically took 10 minutes before or after a practice or game to complete a paper copy of the questionnaires.

Structured interviews with the program respondent were conducted over the phone or in-person and took place prior to the athletes' completion of the YES 2.0. The goal of the interview, which lasted between 20 and 45 minutes, was to gather verifiable information about each basketball program. The interview was divided into five sections: 1) program structure, 2) coaches, 3) athletes, 4) parents, and 5) clinics and camps.

Athlete Measures

All participants completed the YES 2.0 and a brief demographic survey. The YES 2.0 (Hansen & Larson, 2005) is a 70-item self report instrument that measures the frequency of a youth's developmental experiences in a specific context (e.g., class, basketball program). The questionnaire explicitly orients participants toward an activity using the instructions "Based on your current or recent involvement please rate whether you have had the following experiences

in [activity name]". Each YES 2.0 item is rated on a 4-point scale anchored by *Not At All* and *Yes Definitely*.

Items of the YES 2.0 fall into one of seven domains; three domains that focus on intrapersonal experiences (Identity Development, Initiative, Basic Skills), three domains focus on interpersonal experiences (Teamwork and Social Skills, Positive Relationships, and Adult Networks and Social Capital), and a domain entitled negative experiences. Each domain is comprised of two to five scales. For example, the Initiative domain includes the Goal Setting, Effort, Problem Solving and Time Management scales Within the six positive domains there are a total of 17 scales that are outlined in table 1. The negative experiences domain is composed of 5 scales that focus on different types of negative experiences that youth may have in a structured activity.

Table 1
Youth Experiences Survey 2.0 Scales and Subscales

Positive Experiences Domain
Identity Scale Identity Exploration subscale Identity Reflection subscale
Initiative Scale Goal Setting subscale Effort subscale Problem Solving subscale Time Management subscale
Basic Skills Scale Emotional Regulation subscale Cognitive Skills subscale Physical Skills subscale
Interpersonal Relationships Scale Diverse Peer Relationships subscale Prosocial Norms subscale
Teamwork & Social Skills Scale Group Process Skills subscale Feedback subscale Leadership & Responsibility subscale
Adult Networks & Social Capital Scale Integration with Family subscale Linkages to Community subscale Linkages to Work and College subscale
Negative experiences Domain
Stress scale Negative peer influences scale Social exclusion scale Negative Group Dynamics scale Inappropriate adult behaviour scale

Psychometric testing using 1822 youth has supported the YES 2.0's structure (see Hansen & Larson, 2005). Cronbach alpha ratings have

demonstrated high internal reliability for both positive and negative YES 2.0 domains; however high inter-correlations have been demonstrated between scales (e.g., .80 between Negative Influence and Inappropriate Adult Behaviour scales). Hansen and Larson state that high inter-correlations between scales likely result from shared program characteristics. A confirmatory factor analysis has provided support for the multi-factor versus a dichotomous (positive and negative) factor model (Hansen & Larson, 2005).

Data gathered for the present study demonstrated that the YES 2.0 had moderate to high internal reliability measured by Cronbach's Alpha (.73 - .86). The only scale that did not demonstrate acceptable internal reliability was the identity exploration scale (Cronbach Alpha = .52). Secondly, moderate intercorrelations were found between YES 2.0 scales. Intercorrelations between scales were likely, in part due to basketball programs fostering a range of experiences rather than the subscales measuring the same constructs. For instance, a moderate correlation (r = .62) was found between Prosocial Norms and Diverse Peers scales however the questions that comprise these scales clearly represent different experiences. For instance, sample questions from the Prosocial Norms scale include *Learned about helping others* and *We discussed morals and values* and sample questions from the Diverse Peers Scale include *Got to know someone from a different ethnic group* and *Made friends with someone from a different social class*.

An 11-item demographic survey was used to gather descriptive information about athlete group participants. This survey gathered information regarding participants' age, socioeconomic status (Currie, Elton, Todd, & Platt, 1997) and variables relating to their basketball history (e.g., when the participant began playing basketball). The item measuring SES asked participants to answer the question "How financially well off do you think your family is?" using a five-point scale anchored by *Not at all well off* and *Very well off*. The survey also determined the amount of playing time that participants perceived receiving relative to the other players by asking participants to answer the question *In comparison to other players on your team, how much playing time do you receive?* using a three point scale containing *less than other players, same as other players,* and *more than other players.* Lastly, how often athletes perceived their team as winning was measured by athletes completing the sentence 'Does your team….' using options from a 5-point scale where 1 = almost always lose and 5 = almost always win.

Program Respondent Interview

The program respondent interview was a structured interview that was divided into the following five sections 1) *program structure, 2) coaches and referees, 3) athletes, 4) parents and 5) sport related clinics and camps.* The interview was developed based on a review of youth development literature and examining sport program materials. The first section, entitled *program structure,* collected information on variables such as number of participants, registration fees, practice hours per week, and games per season. The second *coaches and referees* section gathered descriptive information about the coaches and referees in each organization. Variables included screening procedures implemented by an organization for potential coaches and referees, the minimum level of coach and referee certification required, the presence or absence of coach evaluations, and

the average number of coaches per team. Data gathered in the *Athletes* section included determining whether opportunities were provided to athletes beyond practice and games (e.g., volunteer work, paid work, and coach and referee training) and whether the organization adopted a code of conduct for their athletes. The parents included variables such as whether the organization had a code of conduct for athletes' parents and what other parenting initiatives (e.g. parent meetings) were present for parents of athletes. Lastly, the *sport related programs and clinics* section elicited information about extra programs (e.g. spring recreational basketball) or clinics (e.g. point guard clinic) that were available for the athletes.

Data Analysis

One-way ANOVAs were utilized to compare the three program types' average YES 2.0 scores on the 17 scales within the six positive growth experiences domains. Since each YES 2.0 domain can be viewed as an independent construct (Hansen & Larson, 2005) a Bonferroni correction was utilized (alpha = .05/k) based on the number of scales within each domain to determine whether each ANOVA was significant. This correction controlled for making a Type I error. Upon obtaining a significant ANOVA, Bonferroni comparisons ($p < .017$) were conducted between groups. Prior to conducting each ANOVA the data for each scale was inspected for signs of non-normality and a Levene's test was conducted to assess heterogeneity of variance. When these assumptions were not met, transformations were performed to normalize the data.

Interview data collected with the program respondents were compiled to provide a profile of each program. Descriptive statistics were calculated to delineate the main features of each program school ($n = 7$), competitive ($n = 5$), and recreational ($n = 4$).

Results

Program and Athlete Characteristics

Table 2 illustrates the key characteristics of school, competitive and recreational basketball programs collected from the interviews with the program respondents and also outlines the characteristics of participants in each program. Three Analysis of Variance comparing participants in each group's age, perceived SES and basketball starting age found no significant differences between group ($p > .05$).

Athletes' Developmental Experiences

Table 3 displays the descriptive statistics and significant differences between groups for each of the positive experiences scales.

Table 4 displays the descriptive statistics and differences between groups on each of the negative experiences scales. Attempts to normalize the data from the five negative experiences were unsuccessful due to the data demonstrating an extreme positive skew. Therefore to compare groups, paired Mann-Whitney U tests were conducted on each of the five scales. An alpha level of .017 was used because three tests were conducted on each of the negative experiences scales.

Table 2
Program and athlete characteristics of recreational, school and competitive basketball programs

Program Characteristics	Recreational (*n* = 4)	School (*n* = 7)	Competitive (*n* = 5)
Mean Fee ($)	$140.00	$84.64	$287.00
Mean Season Length (weeks)	17.00	11.14	29.00
Mean # of Games	18.83	22.00	35.30
Mean # of practice hours/week	0.72	4.71	2.65
Mean # of Tournaments/season	0.75	2.29	6.10
% of parent coaches	97.5% parents	9% parents	70% parents
Coaching Certification	None	None	4 of 5 required Certification
% of organizations offering athletes volunteer opportunities	50% (2/4)	71% (5/7)	80% (4/5)
% of organizations with mechanisms to equalize competition	100% (4/4)	0% (0/7)	0% (0/5)
% of organizations that provide equal playing time	100% (4/4)	28% (2/7)	0% (0/5)

Athlete Characteristics	Recreational (n = 74)	School (n = 70)	Competitive (n = 68)
Mean Age (years)	14.30 (0.52)	14.41 (0.60)	14.45 (0.61)
Mean perceived SES (1-5)	3.60 (0.78)	3.72 (0.59)	3.88 (0.73)
Mean Basketball Start Age (years)	9.91 (1.91)	9.82 (1.35)	10.13 (1.75)
Mean Win-loss (1-5)	3.72 (1.21)	3.81 (1.39)	3.57 (0.94)
% who perceived receiving equal playing time	85.14%	44.29%	63.26%
% in another basketball program	48.60%	60.00%	93.90%

Table 3
Means, standard deviations and ANOVA results comparing school, recreational and competitive basketball athletes.

YES 2.0 Domains/Scales	*ANOVA F*	Recreational (*n* = 74) *M(SD)*	School (*n* = 70) *M(SD)*	Competitive (*n* = 68) *M(SD)*	Contrasts[a]
Identity Experiences					
Identity Exploration	3.25	2.54 (.65)	2.79 (.69)	2.78 (.59)	
Identity Reflection	11.24*	2.25 (.70)	2.61 (.87)	2.86 (.73)	Sch, Com > Rec
Initiative Experiences					
Goal Setting	2.60	2.87 (.81)	3.10 (.67)	3.19 (.68)	
Problem Solving	2.23	2.49 (.79)	2.61 (.78)	2.76 (.72)	
Time Management	6.41*	2.68 (.90)	3.04 (.76)	3.12 (.70)	Sch, Com > Rec
Basic Skills					
Emotional Regulation	8.62*	2.53 (.81)	2.96 (.65)	2.99 (.72)	Sch, Com > Rec
Cognitive Skills	13.39*	1.73 (.57)	2.24 (.74)	2.17 (.75)	Sch, Com > Rec

Interpersonal Relationships					
Diverse Peer Relationships	6.03*	2.65 (.54)	3.00 (.83)	3.11 (.82)	Com > Rec
Pro-social Norms	8.40*	2.22 (.84)	2.55 (.70)	2.67 (.70)	Sch, Com > Rec
Teamwork and Social Skills					
Group Process Skills	2.29	3.23 (.64)	3.26 (.71)	3.45 (.56)	
Feedback	4.05	2.88 (.74)	3.08 (.79)	3.25 (.64)	
Leadership and Responsibility	2.25	2.93 (.87)	3.08 (.78)	3.22 (.75)	
Adult Networks and Social Capital					
Integration with Family	1.84	2.15 (.88)	2.66 (.91)	2.64 (.93)	
Links to the Community	2.59	2.48 (.89)	2.75 (.96)	2.90 (.91)	
Links to Work and College	10.41*	1.71 (.92)	2.47 (.81)	2.56 (.87)	Com > Rec

Sch = School; Com = Competitive; Rec = Recreational
* $p < .01$
[a] $p < .017$

Table 4
Means, standard deviations and Mann-Whitney U results comparing school, recreational and competitive basketball athletes.

	School (N = 70)	Competitive (N = 68)	Recreational (N = 74)	
YES 2.0 Scale	*M(SD)*	*M (SD)*	*M (SD)*	*Mann-Whitney U*
Negative Experiences				
Stress	1.86 (.65)	1.85 (.66)	1.48 (.70)	Sch, Com > Rec
Negative peer influences	1.30 (.69)	1.21 (.32)	1.23 (.50)	
Social exclusion	1.41 (.61)	1.36 (.44)	1.27 (.44)	
Negative group dynamics	1.29 (.62)	1.23 (.45)	1.31 (.61)	
Inappropriate adult behaviour	1.38 (.71)	1.24 (.48)	1.25 (.58)	

Sch = School; Com = Competitive; Rec = Recreational
* $p < .01$
[a] $p < .017$

Discussion

The purpose of the present study was to investigate whether female youth had unique developmental experiences while playing in different basketball programs. Due to length considerations only significant differences will be discussed.

Identity Domain

Participants in school and competitive basketball programs scored higher than athletes in recreational programs on the identity reflection scale. Interview results revealed that competitive and school programs required athletes to make a greater time commitment (i.e., more practice time, games and tournaments) than recreational programs. More time in a program may enable athletes to reflect upon whether they would like to participate in the program in the future and whether the program was congruent with their emerging identity. Coatsworth and colleagues (2005) suggest that activities where youth spend most of their time are the activities where they do their identity work. For adolescent females, the time spent in sport may be particularly important in identity formation because many are attempting to negotiate an athletic and feminine identity (Shakib, 2003), and participation in some sports such as basketball have been shown to be associated with adolescent females developing an athletic identity (Eccles Barber, Stone, & Hunt, 2003). Lastly, the amount of time that youth spend in a sport program is important when they are reflecting on whether they will continue their participation in a program in the future (Patrick et al., 1999).

Initiative Domain

Within the initiative domain, the only significant difference between the three groups was found on the time management scale. Results revealed that the school and competitive groups had higher scores on this scale than the recreational group. Again, the time commitment required to play in competitive and school programs in comparison to recreational programs is likely an important factor for this disparity. Recreational programs, on average, required athletes to attend one game during the week and possibly one practice per week. In contrast, school and competitive programs typically required athletes to attend multiple practices each week, and a minimum of one game per week in addition to tournaments on some weekends. Therefore, due to the time commitment required to play on a competitive or school basketball team, adolescents may need to develop their time management skills (e.g., how to set priorities, not to procrastinate) to meet the demands of both their basketball team and their other responsibilities (e.g., academic, vocational).

Interestingly, studies (e.g., Broh, 2002; Marsh & Kleitman, 2003) suggest a positive relationship between time spent in extracurricular activities and positive developmental outcomes. Although high amounts of structured leisure activity participation are related to positive development and possibly the development of adaptive skills such as time management, too much time devoted to these activities may be detrimental. For instance too much time invested in sport during adolescence has been demonstrated to be linked with dropout from sport and burnout (Gould, Udry, Tuffey, & Loehr,1996; Wall & Côté, 2007).

Basic Skills Domain

Comparisons among the three program types on the emotional regulation scale found that school and competitive basketball programs had higher emotional regulation scale scores than recreational programs. Prior research (Anshel & Porter, 1996; Mahoney, Gabriel, & Perkins, 1987) has demonstrated that competitive level is an important variable to consider when investigating an athlete's ability to regulate and control emotions at competition. In Hansen, Larson and Dworkin's (2003) study, youth reported learning more emotional regulation skills in sports versus other structured leisure activities. The authors suggested that the competitive nature of sports, which encourages youth to excel during competition, contributes to the development of emotional regulation skills. An ethnographic study of an athletic club by MacPhail and Kirk (2006) also highlights the role of competition. Their study found that the introduction of competition resulted in adolescent athletes increasing their focus, commitment, and appreciation of practice. In the present study, school and competitive programs likely were more competitively oriented than recreational programs. For instance, all recreational programs had policies and mechanisms in place to guarantee equal playing time. In contrast, no competitive or school programs had policies to this effect – although some competitive programs guaranteed some playing time to athletes. Moreover, all recreational programs had policies (e.g., shuffling teams) that attempted to keep the scores of the games between teams close and one program did not keep score during games. Since school and competitive programs were operated independently and competed against teams from the same program background (e.g., school teams play only other school teams, competitive teams play only competitive teams), they did not have mechanisms in place to keep scores close. The results of the present study add insight into the development of emotional regulation skills since the competitive nature of the sport context that teenage athletes engage in may influence the acquisition of these skills. It remains to be seen whether young children in competitive sport programs also report learning emotional regulation skills.

The coaches' background and training may have also influenced the development of emotional regulation skills. Four of the five competitive clubs required their coaches to complete training through the National Coaching Certification Program [NCCP] which includes a component that focuses on how to teach athletes to improve their mental skills (Coaching Association of Canada, 2006). This training provides coaches with information about how to implement simple activities and develop action plans that teach athletes how to control their anxiety and focus on the task at hand among other topics. Thus coaches of competitive teams may have utilized this training to teach their athletes some techniques to regulate their emotions. With respect to school programs, the coaches were educators and are likely confronted with students who have emotional regulation such as anxiety relating to school performance. Dunkle-Perry (2004) and Gorrell and Trentham (1992) have described that teachers use a variety of strategies (e.g., visualization, breathing exercises) to alleviate academic anxiety to improve concentration and academic performance. From the results of the current study it is unknown whether teacher-coaches in this study transferred the anxiety reduction strategies that they utilize in the classroom to the basketball court, however future research should explore this possibility.

Results also revealed that participants in school and competitive programs had higher scores on the cognitive skills scale than those in recreational programs. The reason for the differences between the programs is unclear. However, a contributing factor may be that all school programs required participants to meet a minimum standard of academic achievement to be eligible to participate on the basketball team. No reason for the differences between competitive and recreational programs could be identified. Future studies are needed to illuminate the relationship between participation in structured sport programs and the development of cognitive skills.

Interpersonal Relationships Domain

Results on the scales in the interpersonal domain found significant differences between groups on both the diverse peer relationships and prosocial norms scales. With respect to the diverse peer relationships scale, the present study found that participants in competitive programs had higher scores than those in recreational programs. The demographic survey completed by athletes did not include ethnicity information therefore it is unknown whether differences existed between different ethnic groups across program type. The development of diverse relationships may have been influenced by the composition of competitive and recreational teams. During the interviews organization representatives stated that competitive programs brought together athletes from different schools to form a team while recreational programs also brought together players from different schools, but some teams were formed based on existing peer friendships. Therefore players in recreational programs may not have met as many new people as those in competitive programs. Furthermore, participants in competitive programs spent a larger cumulative period of time with their team-mates at practice, games, and traveling to and from tournaments than recreational athletes. The more time that athletes spent with their competitive teams may have allowed them develop relationships or learn about their team-mates (Larson & Verma, 1999).

Comparisons of the three groups on the prosocial norms scale found that athletes in both competitive and school programs reported higher scores on this scale than those in recreational programs. This result does not support Hansen and colleagues' (2003) suggestion that the competitive nature of sports is associated with a lower frequency of prosocial behaviours being reinforced. The disparity in coaching and refereeing opportunities provided to athletes in school and competitive programs versus recreational programs likely contributed to the differences between the programs. Interview results found that 5 of 7 (71%) school and 4 of 5 (80%) competitive programs provided athletes with the opportunity to referee or coach younger athletes, in comparison to only 2 of 4 (50%) recreational programs. Further, both recreational programs that provided these opportunities indicated that only a small number of athletes took the opportunity to volunteer with younger athletes. In contrast, it was mandatory in some school and competitive programs. Unlike other structured leisure activities, participation in a prosocial activity during the beginning of high school has been shown to predict a significant decrease in substance use (e.g., alcohol, marijuana, hard drugs) at the end of high school (Eccles & Barber, 1999). Further, like other extracurricular activities, participation in prosocial activities has been positively linked with other positive developmental indicators. Youth also report that

volunteer activities reinforce prosocial behaviours more than other leisure activities including sports (Hansen et al., 2003). Given the relationship between volunteerism and indicators of positive development, it is possible that sport organizations that incorporate meaningful service into their programs may reinforce prosocial behaviours more than programs that do not provide this opportunity. The results of this investigation provide preliminary support to this premise; however future research is needed to fully explore this relationship.

Social Capital and Adult Networks Domain

Data from the social capital and adult relationships domain found that there were no significant differences between groups on the integration with family and linkages to community scales. However, survey results found that participants in competitive basketball programs had higher scores on the links to college and work scale than those in recreational programs. This difference is likely, in part, due to competitive program athletes perceiving an increased opportunity to play basketball in college or university than those in recreational programs. Both competitive and recreational basketball programs are part of Canada Basketball's Participant Development Model (Coaching Association of Canada, 2006). Within this framework, competitive programs for 14 and 15 year old females are designed to develop players to play basketball at an elite level such as a university team. Further, competitive programs are described as providing participants with the chance to be identified by university and college coaches (Basketball Ontario, 2006). Since this objective is explicitly outlined, some players in competitive basketball programs may have the goal to play at a post secondary institution. In contrast, recreational programs are designed for participants to have fun and to encourage continued recreational participation into adulthood. Interviews with athletes regarding how participating in specific sport programs influenced their desire to attend or play sports at a post-secondary institution would provide an understanding of the influence of a sport program on an adolescent's decisions to attend college or university.

Negative Experiences Domain

Lastly, results revealed that no significant differences were found between groups on the negative peer influence, social exclusion, negative group dynamics and negative adult behaviour scales. On each scale the mean score was close to one, which indicates that participants did not have many negative experiences in each type of basketball program. These results are contrary to Hansen and colleagues' (2003) finding that youth reported more negative experiences in sports than other structured leisure activities. The specific sample used in this study (14-15 year old females) in comparison to the broad cross section of youth sampled by Hansen and colleagues may provide a reason for these differences. These results provide insight into why other studies have found that female sport participation is associated with positive outcomes such as less substance use, less risky sexual activity behaviour and higher moral reasoning in comparison to males and non-athletes (Crosnoe, 2002; Miller et al., 1998; Shields & Bredemeier, 2001).

With respect to the stress scale, athletes in competitive and school programs had significantly higher scores than those in recreational programs, however stress levels across programs were still relatively low. Scanlan, Babkes and

Scanlan (2005) identify a number of sources that have been demonstrated to be associated with stress including injury, fear of failure, time and financial costs, and parental and coach expectations. Two potential sources of stress examined by the YES 2.0 are whether participation in an activity influenced participants' ability to complete their homework and spend time with their family outside of the basketball program. Participants in school and competitive programs spent more time in their sport programs playing in games and tournaments and practicing than those in recreational programs. Fredricks and colleagues (2002) reported that 21 of 41 talented youth in the arts or sports identified having increased stress levels because the time commitment to their activity made it difficult to complete homework. Therefore completing homework may have been a greater source of stress for those in competitive and school programs in comparison to recreational programs. A source of stress not explicitly measured by the YES 2.0 is the amount of playing time that athletes received. Davidson (2006) suggests that youth who participate in sport leagues that provide all athletes equal playing time irrespective of skill have lower stress than those in traditional sport leagues because athletes do not have to worry about receiving playing time. In the current study, all four recreational programs had policies in place that guaranteed equal playing to athletes in these programs and school and competitive programs did not have such policies. Survey results corroborate that athletes perceived playing time as being differentially distributed between the three groups (see Table 1). Future studies are needed to determine the effect of playing time on young athletes' stress levels.

Similar Experiences

As outlined above developmental experiences varied on a number of subscales based on the program in which the participants were enrolled. However on a number of subscales such as Goal Setting, Problem Solving, Group Process Skills, Feedback, Leadership and Responsibility, Linkages to Community and Integration of Family no differences were found between programs. This suggests that there may be similar inherent experiences that athletes are exposed to by simply playing in an organized basketball program. It is apparent that the subscales where no differences are present between programs include skills such as goal setting (McCormack & Chalip,1988), interpersonal skills (Fredricks et al., 2002) and leadership that are often thought to be developed in sport.

Conclusion

This study advances the understanding of the developmental experiences of youth in structured sport programs. Hansen and colleagues (2003) state that different youth programs have unique structures which lead to diverse learning experiences. The results of the present investigation build upon extant literature by displaying that different types of basketball programs have distinct structures, which likely influence young athletes' developmental experiences in sport. Therefore when studying the developmental outcomes and processes associated with sport participation, the type of sport program (e.g., football, basketball) and context (e.g., recreational, school) should be considered separately. Our findings also highlight the importance of sport program structure and characteristics on youths' developmental experiences. This is an area of research that has been largely neglected by sport psychology researchers.

This investigation found four characteristics related to the program structure of school and competitive programs versus recreational programs that may have promoted positive development. Firstly, the time that a youth spends in a specific setting has been described as providing the opportunity to gain the skills and experiences that are associated with that context (Larson & Verma, 1999). In the present study athletes in competitive and school programs spent more time in the basketball program than participants in recreational programs; therefore they had a greater opportunity to have growth experiences in these programs. Secondly, school and competitive programs likely emphasized competition between teams more than recreational programs. The introduction of competition during adolescence has been demonstrated to result in greater focus and commitment to training (MacPhail & Kirk, 2006), therefore the competitive nature of the programs may have helped foster the development of specific skills of adolescent athletes in school and competitive programs. Thirdly, school and competitive programs had trained educators or certified community members/parents as the coaches of their teams. In contrast, the coaches of recreational programs were almost exclusively parents who were not required to receive certification. The NCCP certification process and training of teachers may have assisted competitive and school program coaches create an environment that cultivated more growth experiences. Lastly, athletes who coached or refereed younger athletes were exposed to a unique context – apart from playing basketball – that may have reinforced prosocial norms and fostered skill development (Barber, Eccles, & Stone, 2001). More athletes in school and competitive programs had opportunities to coach or referee and therefore had greater chance to have growth experiences. Future examination of these issues, along with the understanding of the behaviours of coaches and parents, may lead to a measure to evaluate the effectiveness of youth sport programs in promoting positive development.

Finally, the results of this study should not be interpreted as providing evidence about the quality of the three types of basketball programs. Although athletes in recreational programs report less developmental experiences in a number of domains, youth in these programs still reported having a variety of experiences and very few negative experiences. Further, recent research (Busseri, Rose-Krasunor, Willoughby, & Chambers, 2006; Fredricks & Eccles, 2006; Zarrett, Lerner, Carrano, Fay, Peltz, & Li, 2008) has shown that participation in a variety of different types (e.g., sport and art) of structured activities is related to more positive developmental outcomes than participation in fewer activities, however too many commitments may also foster negative outcomes (Zill, Nord & Loomis, 1995). Those in recreational programs who also participate in other sports or structured activities are likely exposed to socialization experiences that engender distinct growth experiences. Thus an explicit objective of structured sport programs should be to foster positive development by providing youth with diverse opportunities to have meaningful learning experiences.

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