Original Research

Adolescents' Perception of the Psychosocial Factors affecting Sustained Engagement in Sports and Physical Activity

JAMES GAVIN‡, MADELEINE MCBREARTY†, KIT MALO†, MICHAEL ABRAVANEL†, and TATIANA MOUDRAKOVSKI*

Department of Applied Human Sciences, Concordia University, Montréal, CANADA

*Denotes undergraduate, † Denotes graduate, ‡Denotes professional author

ABSTRACT

International Journal of Exercise Science 9(4): 384-411, 2016. The purpose of this study was to explore adolescents' perceptions of psychosocial influences – personal characteristics, environmental factors and behavioural undertakings – influencing their prolonged involvement in sports and physical activity (PA). A qualitative approach was adopted wherein 16 adolescents (8 boys, 8 girls; mean age 15.9 years), who had been physically active for at least the last 8 years, and sixteen adults identified as their 'parents' or 'guardians' participated in semi-structured interviews. Interviews were transcribed verbatim and coded using the HyperRESEARCH software. Data were analysed using thematic analysis procedures. Four main themes pertaining to psychosocial influences were identified: 1) personal characteristics; 2) school and community resources; 3) parental support; and 4) social interaction. Except for social interaction, for which participants did not identify challenges, themes are discussed according to their motivational aspects and the challenges they represent for adolescents' PA involvement. The research has implications for health promotion endeavours directed toward parents of children and adolescents. Given the limitations of a qualitative study, readers are invited to apply the conclusions to their own context.

KEY WORDS: Thematic analysis, parental influence, peer influence, reciprocal determinism

INTRODUCTION

Regular involvement in physical activity (PA) plays a vital role in enhancing health status and quality of life (25, 26). Given that health is a resource for everyday living (108, 109), Active Healthy Kids Canada (2) offers that, "physical activity is one of the most effective ways to ensure kids reach their full potential and to ensure a healthy and productive society for all Canadians". Notwithstanding the negative effects of sedentariness on one's health (102), the current levels of PA among adolescents are disturbing. Official guidelines suggest that youth ages 5 to 17 should accumulate at least 60 minutes of moderate-to-vigorous physical activity daily to experience significant health benefits (26). Though this amount can be reached through routine and leisure activities, health agencies advise that children and adolescents spend the recommended 60-minute segment doing vigorous-intensity aerobic activity on at least 3 days per week (1, 31).

*Corresponding Author: James Gavin; Email:james.gavin@concordia.ca

For the second year, Active Healthy Kids Canada (2) assigned a grade of "D-" for overall engagement in PA, the same grade received by the U.S.A. According to the agency, approximately 4% of youth between the ages of 12 and 17 meet the Canadian physical activity guidelines. A study of adolescents from 105 countries yielded further evidence that the proportion of 13-15 year olds performing less than 60 minutes of moderate-to-vigorous levels of PA on a daily basis was low worldwide (62).

Research is still inconclusive on the long-term effectiveness of school-based interventions to increase adolescents' levels of PA (38). Regardless, it seems crucial that we find effective methods to promote the adoption of active lifestyles among this population since sedentary youth are less likely to engage in PA as adults than their physically active counterparts (67).

As indicated by Biddle, Atkin, Cavill and Foster (24), "before interventions can be planned [to increase levels of PA and promote sustained engagement], the key variables that are correlated with the behaviour need to be identified" (p. 26). In their meta-analysis, these researchers proposed categories of variables (positive and negative) that impact youth engagement in sports and PA. Their taxonomy includes demographic/biological, psychological, behavioural, socio-cultural and environmental correlates of PA, somewhat similar to that comprised in an ecological model of health promotion (56, 84, 94). We have supplemented the work of Biddle et al. with findings from our own literature review as reflected in Table 1.

In addition to the above, sex and age have been found to influence involvement in PA with boys tending to be more active than girls of the same age (23, 93). Overall, sports participation is declining across the board (33). Younger adolescents are more active than older youth (5, 39) and PA participation decreases with age into adulthood (22, 66).

Our investigation was intended to explore psychosocial factors influencing adolescents' prolonged involvement in sports and physical activity (PA). Based on research reflected in Table 1, our framing of psychosocial influences broadly encompassed personal characteristics, environmental factors and behavioural undertakings that would potentially affect adolescents' sustained engagement in PA. Two theoretical frameworks seemed pertinent to our endeavour to identify adolescents' perceptions of psychosocial factors contributing to their sustained engagement in sports and PA. The first was Bandura's (10, 12) concept of reciprocal determinism, which postulates a triadic reciprocal relationship between person, behaviour and environment (11, 14). The relevance of Bandura's model for our research stems from an assumption that an adolescent (person) would not engage in sports and PA (behaviour) without the support of social and physical environments (family, friends, schools, community resources, etc.); similarly, it makes sense to assume that the person and the practice of the behaviour impact these same environments.

In his social cognitive theory, Bandura (10-13) builds on his concept of reciprocal determinism and offers that two variables influence the performance of a specific

Table 1. Correlates of physical activity among adolescents.

Correlates	Positive	Negative
Physical	• Weight status (74); • Weight management (4, 68); • Developing physical competence (111); • Wanting to be fit, and achieving positive health outcomes (21, 73).	• Weight status (73, 102); • High perceived exertion for girls (37).
Psychological	• Passion for the activity (80); • Positive motivation and positive body image (21, 76); • Constructs from the self-determination theory (39, 40): Autonomous (identified and intrinsic) motivation (107) and perceived competence (106); • Positive self-efficacy beliefs (7, 43, 44, 110); • Constructs from the theory of planned behaviour (3, 61, 90); • Personal preferences (93); • Positive image of sport (for girls) (34); • Stress management (68); • Fun and enjoyment (21, 73, 76, 112); • Choice and variety (54).	• Factors of amotivation (98); • High self and body-consciousness (6, 102); • Sports as a threat to gender identity, concerns about appearance and low perceived competence for girls (37); • Depression (110).
Behavioural	• Participation in school physical education program (111); • Competition (23).	• Lower sports participation for obese youth (87); • Television viewing (113); • Competing demands on time, e.g., engaging in technology-related and academic and low priority afforded to PA for girls (45); • Previous history of engagement (93); • Smoking (64); • Sedentary behaviours (6, 93).
Socio-cultural	• Cultural values and social assumptions (64); • Socioeconomic status (101); • Parental influence and support (20, 33, 41, 46, 93); • Parental modeling (30, 91); • Maternal education (57); • Parental physical activity for boys (110); • Autonomy-promoting behaviour from coaches (49); • Social support (41, 44, 47, 58); • Social interaction (79); • Participation in sports teams (113); • A network of physically active friends (44).	• Peer-teasing leading to unfavourable social comparison of skill levels (30); • Victimization/bullying and lack of social support (59, 102); • Ethnicity, lower socioeconomic status, and parental education (57, 63, 110); • Parents' concerns about safety as well as negative influence of peers, parents and teachers (45).
Environmental	• Access to recreational facilities and exercise equipment (58); • Use of community facilities (57); • Safe neighbourhoods (50).	• Lack of opportunities (37); • Inaccessibility to and inadequacy of fitness facilities (45, 78, 102); • Parents' concern about cost (of sport and transportation) (60); • School PA policies, lack of culturally appropriate facilities and programming as well as dangerous neighbourhoods (86).

behaviour. According to him, people are more likely to act if 1) they believe that they have what it takes to accomplish the task and surmount barriers to its achievement – self-efficacy, and 2) they believe that they will achieve a certain outcome that they value – outcome expectancies. Self-efficacy has been recognized as a fundamental

element in multiple other cognitive models of individual health-related behaviour change (3, 71, 77, 92). The importance of self-efficacy for this research is that people with high self-efficacy beliefs not only set higher goals for themselves but they persist longer in goal pursuit than those with lower levels of confidence in their ability to achieve their set objectives (13).

The second theory of health-related behaviour that influenced our thinking about the research question was the Health Action Process Approach (HAPA) (95-97). HAPA is a two-stage (motivational and volitional) theory that addresses behavioural enactment. It suggests that in order to maintain a behaviour, actors must possess self-efficacy and apply self-monitoring and self-regulatory processes (16) to overcome incompatible intentions (99), prevent lapses and recover from relapses (81).

Though the current research was not designed to test a particular theory, the motivational factors and theoretical concepts detailed above informed our formulation of the research question and provided a framework of interpretation as sensitizing concepts (27) in data reduction and analysis.

A qualitative approach seemed most appropriate for this project since it was meant to shed light on a human phenomenon (35). Qualitative methodology fosters understanding of both the context in which participants evolve and the influence of that context on their actions (82). According to principles of youth engagement (88, 118) and health promotion program planning (13), contributions from the focus population are crucial in the design and implementation of effective interventions. Consequently, we deemed it important to hear from adolescents and members of their families since the results of this research would hopefully be suggestive of interventions to promote active lifestyles among youths.

The experience explored in this research pertained to adolescents' prolonged engagement in PA. The main research question that guided the inquiry was: "What psychosocial factors influence adolescents' sustained engagement in sports and PA?" The sub-questions are outlined as follows: 1.) What personal characteristics promote sustained engagement in sports and PA? 2.) What benefits do adolescents perceive they derive from sustained engagement in sport and PA? 3.) What is the environmental context (family, friends, school and community, etc.) that influences adolescents' sustained engagement in sport and PA?

METHODS

Participants

Sixteen adolescents (eight boys and eight girls – mean age = 15.9 years) were recruited using a purposive sampling approach (65). Because we sought to understand the greater context or the external influences that impacted adolescents' behaviours, we invited sixteen parents/guardians to add their narratives to those of their children. Criteria for selection of adolescents were as follows:

1. Boy or girl between the ages of 15-17;
2. Student in secondary III – V (grades 9 – 11) in private or public high school;
3. Current engagement in PA through participation in organized sports or

fitness/dance classes, use of exercise facility (gym), or engagement in self-directed activities (skiing, swimming, running);
4. Consistent involvement in PA (at least 8 years).

Parents/guardians were those adults identified as such by the adolescent and those who have been actively involved in the adolescent's life since childhood. Participants attended public and private schools in Montréal, Quebec as well as schools with Sport Études[i] programs.[ii] All

Table 2. Participants (boy/girl), parents and main form of PA by school type attended.

School	Boy & Parent	Main Activity	Girl & Parent	Main Activity
Private	Bob & Bobette Bob	Rugby	Penelope & Chester Dupont	Horseback riding
	Peter & Mary Parker	Wrestling	Lola & Ginger Cooper	Ballet
	Vinny & Lily Chase	Football	Maya & Delphine Nureyev	Ballet
Public General	Bobby & Dezmond Daly	Hockey	Kristen & James Lang	Basketball
	Chris & Christina Ronald	Soccer	Olga & Joan Brown	Multiple sports
			Sierra & Melinda Walker	Swimming
Public – Sports Études	Jermaine & Jeannine Jones/	Soccer	Sam & Sally Smith	Figure skating
	Robin & Rick Loblaw	Figure skating		
	Lionel & Randy Messimo	Soccer		
CEGEP			Kelly & Calley Cruise	Multiple sports

except two participants identified a specific physical activity as their main practice; many indicated involvement in multiple sports across the seasons and throughout their lifespan.

The Concordia University Ethics Committee granted approval for the study prior to the start of the recruitment process. Participants (adolescents and parents/guardians) were informed verbally of the confidential nature of the interviews. They were also presented with a consent form that they signed. All participants were then asked to select a pseudonym as a further step to enhance anonymity. A pseudonym was assigned to those adolescents/parents who opted not to select an alias (see Table 2).

Protocol

A collective case study design (100) with a narrative approach to data collection was used to understand the reasons why adolescents remain physically active throughout most of their life. According to Yin (117), the case study paradigm is appropriate to explore phenomena in their context. For the purpose of delineating the boundaries of the collective case study, the narrative of each adolescent believed to have insight into the research question was considered in its uniqueness (single case) (89); it was then interwoven with the other participants' stories to address the research questions (36, 51).

The researchers conducting this study possessed training and experience in the use of a qualitative methodology with a collective case study design and a narrative approach to data gathering. One member of the research team had previously employed this form of qualitative methodology in doctoral research (83), while other graduate team members had completed advanced coursework in qualitative methods, as well as assisting in other qualitative research projects as part of their studies.

The data used to address the research questions came from one recorded interview with each participant/parent. The adolescent and one of his/her parents participated in the interview together. A research assistant conducted the semi-structured interview lasting between 50-60 minutes. Interviews proceeded according to a protocol that contained a series of questions with follow-up prompts. Typically, questions would be asked of the adolescent and then of the parent/guardian, with appropriate prompts. Questions focused on the following areas: choice of activity, duration of involvement, needs for participation (adolescent), story of involvement in PA over lifetime (adolescent) with subsequent request for additional detail from parent/guardian, family implications (adolescent and parent/guardian), motivations (adolescent with question about motivation for supporting PA to parent/guardian), supports for involvement (adolescent and parent/guardian), among others.

Given our focus on long-term PA engagement, we believed that parents or guardians would necessarily have knowledge about and likely involvement in the adolescents' sports and activities. By including parents in the interviews, we anticipated that interview commentaries emanating from both adolescents and their parents would enhance the richness of the data and thus increase the trustworthiness of the study (75). In brief, we believed that

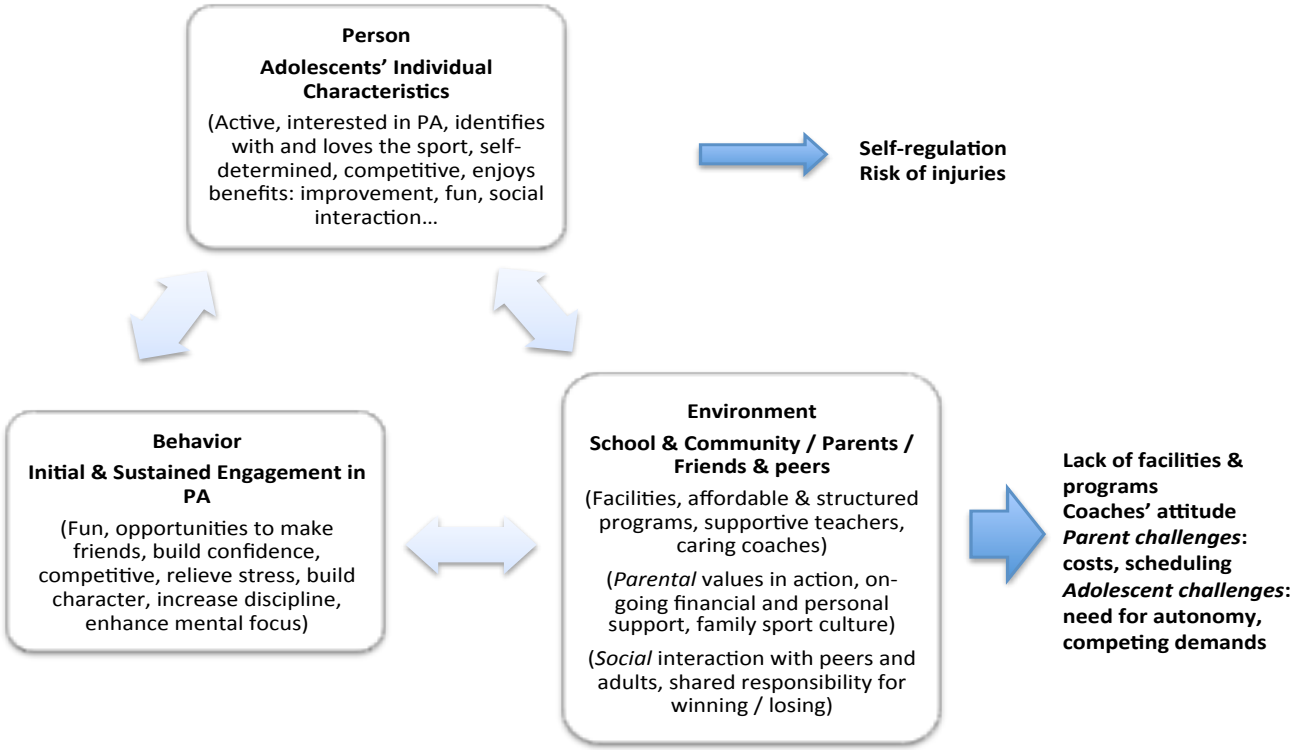

Figure 1. Graphic representation of the psychosocial factors perceived by adolescents as influencing sustained engagement in sports and PA.

parents' participation would provide contextual information and thereby contribute to thicker descriptions (53) of the inquiry results so that readers might draw their own inferences from the study.

Statistical Analysis

The same research assistant who conducted the interviews recorded and transcribed the audio files verbatim.[iii] A different research assistant listened to segments of the audiotapes and verified the accuracy of the transcripts across several excerpts. Once the researchers were satisfied that the external audit had demonstrated the exactitude of the transcripts, three researchers read the interviews separately and noted emerging themes (28). Each new thematic section was labelled with in-vivo codes (36) drawn from the participants' words or with inductively generated concepts – using sensitizing concepts (27) from the literature.

Following the recommendations by Medin and Brasalou (42), we drafted a codebook prior to engaging in formal line-by-line coding of the data (55). Descriptions in the codebook were used to create categories and sub-categories. We then incorporated the emerging themes identified through the coding process in a graphic representation (85, 105) for which Bandura's (13) reciprocal determinism seems to provide a suitable framework (see Figure 1).

RESULTS

We identified four main themes associated with psychosocial factors that seem to influence adolescents' sustained

engagement in sports and PA[iv]. These are presented according to frequency of occurrence in the data; they are: 1) adolescents personal considerations (personal characteristics, preferences and challenges); 2) school and community resources; 3) parental support; and 4) social interaction.

Adolescents' Personal Considerations

An important theme concerns adolescents' personal characteristics and preferences. These are seen in their personal connections to sports and PA as well as in the challenges they describe as deterrents to their continued involvement.

Motivating factors: Personal considerations for remaining active include a self-concept as 'someone who is physically active and loves sports.' In addition, there are all the benefits derived from engagement, such as the opportunity to increase competence and self-efficacy, as well as the desire to compete.

'Sport' identity - Adolescents who have sustained involvement in sports and PA for a significant portion of their lives refer to themselves either as 'sporty' or more specifically as a participant in the activity that they practice; for example, 'I'm a soccer player' or 'I'm a dancer.' Their self-concept seems meshed with the activity they pursue.

Maya$_a$: *The way I am is more about dance. I do stuff with my body instead of with my words and maybe if I would have been a born singer it would have been different; but I think I'm probably a born dancer instead.*

Peter$_a$: *Karate has been part of me from the time where I was actually growing inside, so I just can't quit.*

Almost all adolescents in this study affirmed that they are truly passionate about the particular activities in which they engage and it is this passion that motivates them to continue. They often reiterated in the interviews that though they might have fewer opportunities to play as they age, they could hardly fathom becoming physically inactive since performance is so intricately connected with who they are.

Randy$_a$: *I'm playing very well, so I can't stop this; it's a part of me, it's a big part of my life and I can't stop playing it.*

Sierra$_a$: *Every time I'm in the water, it feels like that's where I'm supposed to be.*

Love of sports - Engagement in sports and PA is often described as an expression of what the person loves to do (is passionate about – intrinsically motivated) rather than an undertaking requiring extrinsic motivation.

Interviewer: *if you could explain when you say 'the love of the game', what do you mean by that?*

Jermaine$_a$: *It's like that feeling you have when you do something that you love to do. Like, if you love to read books, then you'll always read books. If you love to cook, you'll always cook. I love to play soccer, so, I focus on that... You just get that feeling that you love it so much. You just keep going…*

Sam$_a$: *I love everything about the sport… I can't picture myself stopping…You keep a smile*

on your face 'cause you're here doing the thing that you love.

One clue about why adolescents say they 'love' PA is that they seem to equate participation with 'having fun'. When the 'fun' factor diminishes, interest wanes. Participants associated 'fun' first and foremost with shared interactions with friends and teammates (also discussed below).

Randy$_a$: *[There was] a period of time when I wasn't going to soccer… when I'd go to the gym; it was just me at the gym… there was no one else there with me. But when I went to soccer, it was fun, the way we were playing was fun, the people I was with were just so fun and when I was having fun, I was playing well and I had made a lot of friends so, to continue that friendship and making that stronger was really cool to have people I can go to or people I can turn to whenever I need to.*

Maya$_a$*: I have so many friends… People around you have to be active. They have to keep you stimulated… it's fun!*

Adolescents suggested that 'fun' also implied surpassing their limits and achieving what they hoped to achieve.

Interviewer: *If you could describe 'fun' to me, what does it mean for you?*

Chris$_a$: *It's fun going out and scoring… just like staying with friends is fun.*

Lola$_a$: *I really want to be good. I really want to get my leg really high and I want to be able to do what the best do; like all the professionals and everything and I know that in life I want to dance and I want to become a dancer so it's that motivation.*

Robin$_a$: *I kind of set goals and stuff and I try my hardest to get them and when I do get them, it's a great feeling. You get a really good feeling and it makes you just wanna go and keep going and go for the bigger goals and…it motivates you.*

Consequently, the motivation to continually improve their performance and reach progressively more difficult goals - thereby increasing their sense of self-efficacy - is thought to be influential in sustaining participation.

Interviewer: *Have there been times when you've wanted to stop?*

Chris$_a$: *No.*

Interviewer: *What kept you going?*

Chris$_a$: *I set goals… I try my hardest to get them and when I do get them, it's a great feeling… You get a really good feeling and it makes you just wanna go and keep going for the bigger goals and it motivates you.*

Participants told us that they learn from each other (teammates, peers, club members, etc.) and are motivated to excel through mastery and vicarious experiences of quality performance. They are also impacted by verbal persuasion.

Olga$_a$: *I'm the best at soccer… I got good at doing them [sports] and then I wanted to do more sports because I thought maybe I'll be good at that too.*

Sierra$_a$: *Jennifer, she's the freak. She goes to every practice. She works really hard and because of that, she's faster than all of us. She's the fastest girl on the team. But she puts in the*

work and she puts in the effort. So I always go to her and I ask her how does she get this fast? I learn from her.

Maya$_a$: *Right now people that are surrounding me are just like 'we're going to get to the top and we're gonna be better and you could do this better and I could do that better' and everyone's just a good energy.*

Valued benefits - In addition to the opportunity to make friends and socialize, other benefits that motivate adolescents to remain physically active are improved confidence and a growing sense of autonomy.

Bobby$_a$: *[Sports participation] teaches you valuable life skills… it gives you confidence, how to keep motivated, how to dedicate yourself, how to stay committed on the field when you're in your position, how to do your job correctly. How to go with feeling, basically it's how to give your all and have a positive outcome.*

The competitive aspect of sports is an important influence for both boys and girls who explained that as they grew older, they increasingly loved the thrill of competition.

Bobby$_a$: *You can't describe the feeling of what it's like when you have the best game of your life or when you win and you go into the Nationals or you know people are watching and you're just ripping up the field... I can't really describe how it is but like when I'm playing good I know I'm doing my thing you know.*

Sam$_a$: *I love competing. It's like right before you get on you get that little boost of adrenaline, and you go and you have fun, I really like the competing, the jumping, everybody that I've met, the shows…*

Some participants offered that they enjoyed being physically active and valued the stamina and energy that they derive from PA; all the parents said that they believed in the health benefits of an active lifestyle; however, the majority of adolescents did not mention physical health on their list of factors influencing participation.

Interviewer: *Do you ever think of the fitness side of it? Does that matter to you?*

Olga$_a$: *I do it 'cause it's good for you too, but that's not why I do it. It's just another reason why it's good.*

Finally, engagement in sports and PA is recognized for its benefits to relieve stress, build character, increase discipline, and enhance mental focus.

Peter$_a$: *I find that it's a way to relieve my stress too sometimes; if I've been having a bad day, I just get on the ice and forget about it. I do my stuff, and it can be motivating too, if I have a good skating day, I'm happy for the rest of the day - I'm in a good mood. And sometimes, I guess, it helps me concentrate afterwards - on homework, or anything else I have to do.*

Challenges: We also considered in this theme comments where adolescents described how injuries and the need to self-regulate were potential deterrents to their engagement in PA.

Injuries: Whether it was a ballet dancer who broke her foot while playing soccer or a horseback rider who fell off her horse, some adolescents told stories of injuries that impeded their playing for a length of time. Injuries were clearly regarded as threats to prolonged PA involvement; several participants expressed significant concerns

about injuries (*ergo* the sub-theme of 'injuries' is included here). However, none of the adolescents acknowledged wanting to completely stop PA because of fear of injury.

Kirsten$_a$: *I'm really injured right now a lot. I have tendonitis on both my ankles, so I have to reduce the amount of sports I do at the moment; and even now, with already reduced, I feel bad that I'm not doing it as much.*

Self-regulation: While most adolescents in this study appeared intrinsically motivated to be physically active, there were times when they had to exercise self-regulation to remain engaged. For a few participants, going to practice required the elicitation of effort and the ability to self-motivate.

Bob$_a$: *Sometimes I find the motivation hard. Before practices, I'll be like, "ah, I don't want to...go to practice" but then once I actually start the practice, I'll be okay.*

In addition to getting to practice, some adolescents offered that self-regulation is necessary for time management. Involvement in PA requires a substantial amount of time that might otherwise be devoted to pursuing different interests. Engagement in sports and PA also posed a challenge when competing demands arose, such as examinations or school assignments.

Kristen$_a$: *Timing sometimes [is an impediment]… they know that it's exam period now, so basketball isn't as intense at the moment, and it all depends, I guess… managing school and stuff.*

Other expressions of self-regulation arose when impulses to express frustration and anger had to be restrained if players wanted to remain in the game. Finally, self-regulation was necessary to persist when facing difficulty to achieve a desired level of performance.

Lola$_a$: [Ballet] is really difficult and there's never perfection; it's not attainable. So there's always more that you can do and it's hard. It's never ending.

School and Community Resources

Environmental influences, notably community and schools resources, were related to adolescents' participation in sports and PA, and are divided into motivating factors and challenges.

Motivating factors**:** Supportive teachers, caring coaches, and access to sports facilities and programs are among the school and community factors perceived to influence adolescents' engagement in sports and PA.

Access to facilities and programs - Research participants emphasized the benefits of facilities – parks, arenas, courts, gyms, and pools – at close proximity to their residences, as well as appreciating the availability of structured sports programs.

Bobette*: We're really fortunate that… [the City] has a great program, and [the high school] has a great program... we didn't realize how lucky we were and how many places don't have that.*

Though adolescents might refer to 'pick up' games they play with friends, they more readily link their physical activity status to organized sports and PA. For them, structure increases participation.

Bobby$_p$: *Usually during the summer I play soccer in an organized team, and during the winter I play hockey, again in an organized team, and starting in April, May, I play on the school rugby team.*

Community organizations are recognized for affordable programs through which adolescents can play sports at several levels throughout childhood and adolescence. In addition to programs offered by government-subsidized specialized schools (Sports Études and dance schools), the list of structured programs noted by adolescents in this study included formal teams, leagues and clubs formed around specific sports, intercity or house leagues, summer camps for skills-development, and other programs offered by national associations, schools and the community.

Supportive teachers **-** Whether they were gym teachers or sport instructors, teachers had a profound influence on adolescents' motivation to engage in PA and remain physically active. Teachers who provided a variety of positive and fun-filled experiences rather than those who largely emphasized the need to improve were likely to be vital catalysts to adolescents' engagement in sports and PA. Teachers might encourage students through acknowledgement of their capabilities, or they might have supported them through verbal persuasion or by matching particular activities with the adolescent's skills.

Ginger$_p$: *I think it was a teacher who noticed her and saw that she had a great drive; [that] she could succeed much more and with that one teacher noticing her and giving her positive reinforcement, I think that that's what brought the ballet to the point where 'I'm going to eat, sleep, and breathe ballet now'.*

Kelly$_a$: *In elementary school, I had this really cool teacher and… I had always liked sports, but he really got me into sports… He's very motivating, very positive and instead of going like 'come on, you could go faster…' he motivated us. He'd tell us 'you should really join the soccer team' or 'you should really get into basketball' you know, ' you've a good shot'… very positive in class we had lots of fun, different activities.*

Interviewer: *So it sounds like without him it would have been different.*

Kelly$_a$*: Something clicked, and I'm just like 'that's it, I want to get involved'… he put some confidence in me that I could do well in sports. And then, I'm like 'Know what? What the heck; I'm going to join a team.' And then it progressed from there and I got good… I still think I would have gotten into sports but he really made me want to do well.*

Caring coaches - The attribute that participants said that they appreciated about their coaches was less the ability to design winning strategies than the fact that they 'cared' about players. A positive relationship with coaches influenced adolescents to surpass current levels of achievement in sports and it kept them involved in PA.

Christina$_p$: *The coach that would cut practice with them, he didn't care and there was no discipline in practices; and then they got a new coach which cared about the boys and made them work hard and they worked harder, they started to win and they got a lot better. Just like exceptional teachers, coaches who were fair and those who provided positive feedback significantly motivated youth to remain physically active.*

Jermaine$_a$: *The coaches at Sport Études, they don't have a favourite person. They work with everybody. Like they don't have, 'oh this guy's good, I'm just gonna focus on him'. They work with the guy who's not good, to get him up there with everybody, to get in the same area that everyone's at now.*

Well-liked coaches helped set achievable goals; they demonstrated care for the whole person and they elicited loyalty from players. Some adolescents offered that they chose a particular league and remained connected to their sport simply because they liked the coach.

Bob$_a$: *I mean the coaches are pretty involved with the players and everything and… because I had a lot going on… the coach would come up and talk to me, and he'd ask me like, 'how are things going?'*

Challenges - While school and community resources might provide opportunity and impetus for sustained engagement in sports and PA, facets of these elements might serve to impede the desire and capacity to remain active.

Lack of programs and opportunities - Participants offered that when opportunities to play structured sports wane, adolescents' levels of PA could decrease. Getting older and entering CEGEP or University might be accompanied by fewer opportunities to play. Access to playing on college teams was seen as more restricted, while neighbourhood leagues were thought to be geared to virtually all those who want to play.

Kelly$_a$: *But it makes me sad thinking, 'ah, in a few years from now I don't know if there's gonna be a league available where I can play basket like I can play soccer.'*

Some adolescents bemoaned the fact that opportunities to practice are directly linked to high skill levels. They offered that those who are not 'great players' might still practice and play if they were given an opportunity to do so.

Lionel$_a$: *We have lots of kids who really want to play, but they have only teams for the…grade… They have 200 students and only 11 can play… That's the limitation… In school, or outside of school they really have to tryout and they pick only the ones who are able to play. And, actually there's no training for those who really want to play… There's so many that really want to play, and they're not allowed.*

Overly competitive coaches - Participants involved in team sports preferred coaches who showed appreciation for all players over those who consistently catered to players with higher skillsets. Coaches who focused exclusively on winning and those who withheld opportunities to play contributed negatively to adolescents' motivation to remain active.

Interviewer: *Have there been times when you've actually wanted to stop sports altogether?*

Bob$_a$: *I don't think so.*

Bobette$_p$: Except when soccer was no fun anymore… That was the only one. And he did that on a team where the coach just wanted to win and there was a couple of star players and that was it. And the rest of the team didn't really matter too much; that's a good way to ruin somebody's enthusiasm for a sport.

Parental Involvement

Parents act as important catalysts in propelling children on a path toward active living.

Sierra$_a$: *If it wasn't for mom, I know I wouldn't be into sports... For her, sports is really important and that we're doing sports. And so I guess she kind of passed that onto me.*

Parental involvement continued to play a crucial role throughout childhood and adolescence in terms of influencing sustained engagement in PA. Parent's involvement was divided into motivational factors and challenges.

Motivational factors: The motivational influences in the theme of parental involvement include a) parental values in action; b) committed ongoing support; and c) a 'sports' family culture.

Parental values in action - Given this study's criteria for recruitment, all participants started their involvement in PA at a young age. An important question then would be why parents decided to enrol their young children in structured sports and PA. Our data seem to reflect strong agreement concerning parents' perception of the benefits of PA.

Melinda$_p$: *I think that physical activity is really important, mentally, physically and emotionally. I just think it's part of who you are. It's important to maintain that. And it makes us feel better; we're physically fit… our bodies are able to carry us better. And we're able to take care of us mentally, emotionally better. So, for me, it's just a complete package. And, it's important for me and I try to instil that in my kids.*

Parents not only believed that an active lifestyle contributed to their children's wellbeing (present and future), but they also put their values into action. They took concrete steps to facilitate engagement and they provided ongoing support so that their adolescent children could sustain participation in sports and PA.

Among the skills and psychosocial attitudes that parents wished to foster in their children through involvement in sports and PA were: self-confidence, self-discipline and self-management, the ability to achieve life balance, respect for others, sportsmanship, aptitude to interact well with adults, appreciation for diversity, an appropriate strategy to deal with stress, and mental focus, which can also be seen as benefitting adolescents academically. Parents wanted their children to do something other than watch TV, surf the web, or hang out in parks or at the local mall.

Joan$_p$: *I think it's great for kids to be in sports, I mean it keeps them out of trouble.*

Christina$_p$*: It's important for them to stay focused in their life you know… not go with drugs or in the wrong direction.*

Ongoing support - Parents' ongoing support is vital to help adolescents remain physically active. Indispensable forms of support are verbal persuasion and financial and personal contributions. Many of the adolescents who might have entertained thoughts of abandoning practice admitted that their parents' strong encouragement to continue helped them overcome urges to do so; it realigned them with their passion for the activity.

Peter$_a$: *They wouldn't let me just quit out of the blue either.*

Sierra$_a$: *[My mother] pushes me to do sports and stuff like that. There're some days that I don't want to go swimming, and she's like 'I think you should'. But most of the time, I do want to go swimming.*

Parents' financial contribution can readily be understood as fundamental to adolescents' sustained engagement in sports and PA. Some teams organize fundraisers for special events and those adolescents enrolled in Sports Études programs receive some financial help from the school. However, most parents must pay the fees, tuitions for private schools and other sports-related expenses.

Delphine$_p$: *It's a big commitment. And her skates of course, her equipment it's not like you say, 'I'm going to be leisurely skating and I'm gonna go to Canadian Tire and buy myself a pair of skates.' No. These are skates that are moulded to her foot to make sure that everything is aligned… it could get quite pricey.*

Parents devote time and energy to support their children's engagement in PA. They provide transportation and many attend all practices, acting as cheerleaders at games and tournaments.

James$_p$: *My activity is driving… My involvement is I have to drive her to all the games. Sometimes on the weekend we have to spend the whole time on her rather than on us. And that's part of it; but for most parents it's not just the time, it's more financially.*

Family 'sports' culture - Most participants mention a culture where the whole family is encouraged to be physically active. In this perspective, engagement in PA is understood as a natural way of being.

Dezmond$_p$: *He has four older brothers that were very involved so, at a certain time every year there's registration; so at a certain age when he was able to play, then it just, do you want to play? We'll sign you up. And he said 'ok'. It wasn't really much of a push on either side; it was just very easy, almost natural. 'Cause I mean he saw his older brothers playing and we just thought now it's his turn.*

Just as parents' values regarding the importance of PA for their children transfer across generations, the family's 'sports' orientation becomes a stimulus for engagement.

Vinnie$_a$: *Growing up, I did a lot of tennis and skiing because my dad used to be an instructor in both those sports and golf too because, and you know when he used to take us out to the country all the time, and we'd play tennis and golf. We'd go to our golf club and play golf a lot; same with tennis, and in the winter we'd go skiing, and those were the three sports he got us into first, like when I was six or seven, but then as I started to learn new sports I got into those more.*

Challenges: We identified two types of challenges related to parents' involvement in their children's PA practice: 1) Challenges experienced by parents (e.g., costs and other resource issues), and 2) challenges experienced by adolescents – need for autonomy and addressing competing demands by their parents.

Challenges experienced by parents - As discussed, most parents demonstrated unconditional commitment to their children's involvement in PA. However,

support can be costly and parents need to find ways to overcome these challenges in order to provide basic necessities for engagement in a particular sport or PA.

Bobette$_p$: *Well, it's tough – I mean like, if he has a game out in Ville St. Laurent, and it's usually after school and you've got other kids, it means trekking out, trekking back...gas, time, effort...and it's a bummer...but we do it… I've got a younger son who's in elementary school, so, it's all that at the same time... but those are all costs. Some parents bring all their kids...so it becomes a whole movement of time and space and energy and money.*

Parents in our study recognized a certain privilege in being able to overcome financial barriers in order to keep their children active. They were aware that single parents or parents of large families might have to work harder at managing resources, schedules and their own energy in order to support children's practice.

Kelly$_a$: *What makes me sad sometimes is that I feel like sports nowadays... involves so much with the parents and leagues and stuff...kids who don't – maybe aren't as well off – their parents are working, they can't afford it, they can't drive them... I feel as though, as a country, it's something that we should encourage, you know, all economic groups to be able to...play sports. Which isn't always easy. Cause I think for the most part now a lot of these sports it's like, suburban kids who do a lot of the sports.*

However, it seems that even when parents struggle with finances and other personal resources, their desire to support their children's involvement in PA supersedes their own needs.

Delphine$_p$: *Although there have been different areas where I haven't been able to give because it's been financially restricting at times and I might not have been capable at the time on a financial level, but…I have to do everything I can.*

The will to act congruently with their values and their beliefs about the benefits of PA helps parents overcome barriers that could ultimately have detracted from their investment in their children's involvement in sports and PA.

Sally$_p$*: A lot of people say, 'Oh my god, I don't know how you do it, seven days a week you're in some kind of ice rink.' I said, 'that's fine. That is my choice, and my husband's choice; we'd rather see them in places where they're doing physical activity with other people than hanging around stores or parks' and that was not for us. We said 'we're gonna give 'em everything we can… we can teach them right from wrong' and being in an organized sport, for us, has always been a bonus and a plus. It's very important.*

Challenges experienced by adolescents - Parental involvement, though a critical contributor to sustained PA engagement, does sometimes pose challenges. Support from the 'overinvolved' parent who might take the activity more seriously than the child is not always motivating for the adolescent, neither is it always viewed positively.

Calley$_p$: *Our son just said after two years… 'I'm not having fun anymore. I want to go back to house league.' And he loved it.*

Interviewer: *So what do you think the difference is?*

Calley$_p$: *I think it [intercity] attracts a kind of crazy parent and demonic coach; they have these pipe dreams of their kids becoming, I don't know, professional soccer players or something ridiculous and they take the fun out of the sport...*

For some adolescents, an emerging desire for autonomy surpasses the benefits of having an involved and supportive parent.

Olga$_a$: *I don't want her [mother] watching.*

Joan$_p$: *… she doesn't like me watching volleyball.*

Olga$_a$: *Or any other school sport.*

Interviewer: *Just the school sports?*

Olga$_a$: *Yeah; the other ones 'cause school sports you often have breaks between them all so I'd rather her just not be there. And then, I don't know, I guess like out-of-school sports, you have one game and you go home so it doesn't really matter.*

Another form of challenge experienced by adolescents derives from competing demands from parents who highly value both academic and sport success. Though most participants acknowledged that the mental focus and discipline acquired through PA transfers to the academic domain, many highlighted the difficulties of meeting competing demands.

James$_p$: *To us, from her school, the expectation is above seventy-five.*

Kristen$_a$: *If you don't reach that they don't allow you to play on the school team.*

James$_p$*: And from our expectations it's above eighty-five.*

Kristen$_a$: *Their expectations are higher than eighty-five, usually. 'Cause eighty-five is honour roll at my school, so they want me to be above that to get honour roll.*

James$_p$: *We are worried more because the training is so intense, like three days, three nights a week. Plus the weekend tournaments, sometimes it's like 'How can they have time to study?' Sometimes she has to study 'til twelve, and in the morning six o'clock you wake up and…it's a bit too much.*

Social Interaction

Multiple facets of social interaction were cited as motivating factors influencing adolescents (and their parents) to sustain engagement in sports and PA. It is the only theme for which participants did not easily identify challenges. Social interaction both motivates initiation in a particular sport and encourages sustained practice.

Shared interaction: For many participants, friends provided the safety needed to initiate activities they might otherwise not have undertaken.

Kristen$_a$: *I don't like joining… a team where I don't know anyone yet 'cause you feel scared and alone. So, I usually like doing things where I know someone at least who's there, who I can talk to and help me… When you're alone you're always shy and you might not do your best because you're scared of what everyone thinks of you. But if you have at least one person you're friends with, then they can push you and help you when you're scared…*

Bob$_a$: *When I first got into football, I wasn't really that interested in it but my friends were*

like, 'oh, try football this year' and, so that's what really got me interested in the sport, and got me involved. So, I guess, when something like the peers will push you toward like a new sport or something, but then you gotta, I guess, push yourself to keep going with it... Yeah. I guess determination can also come from like, friends and everything 'cause they're all going to practice and I'm going to go to practice with them.

Most adolescents mentioned the importance of socializing as an incentive for maintaining activity involvement. Engagement in PA seems to widen the pool of potential friends.

Bob$_a$: *You can build relationships and you can make friends when you're a member of a team...*

Bobby$_a$: *I had some French people on my [hockey] team and I don't have any French friends but just from being on the team with them, became friends with them and started hanging out with them and stuff so, I've never had French friends before this, the only connection was hockey for us and it was perfect. We became friends.*

Because physically active youth spend a significant portion of their time practicing their sport, they develop a special bond with peers and teammates. According to them, the shared experiences of success and hardship contribute to their sustained engagement in the activity.

Sierra$_a$: *It's also like you have a closeness with your team that you don't have with your friends… it's like we're all there together… I won't ever think of stopping. I know everyone else on the team is struggling just as much as I am. It's like we're in this together, we'll get through it together...*

In addition to forging friendships with peers, participation in PA provides an opportunity for youth to socialize with adults. Going to practice or a game becomes a social occasion.

Sam$_a$: *The people that I've met throughout the sport, and basically when I started it's like I was born into a new family.*

Sierra$_a$: *We all know the parents, 'cause there's the parents that are always there. So it's like we all know their parents, we all talk to each other's parents and stuff, which is cool.*

Parents in the study acknowledged that their child's involvement in PA impacted their own social interactions and helped them overcome challenges associated with supporting their children's practice. Some offered that they developed a sense of community with other parents stemming from common interests or simply from the fact that they have little time to socialize given the demands of their children's involvement in PA.

Interviewer: *What has that [children's involvement in sports) given you and your husband?*

Christina$_p$*: Friends. 'Cause like all of our friends are from their sports. Keeps us busy too; we don't sit in front of the TV and rot… The team we're on we have a lot of parents who don't have the funds to be able to go outside [the city]… Sometimes the parents can't drive, they call, we go get them; they ask for help, we get them.*

Shared responsibilities and teamwork: Teamwork was often cited as an enjoyable aspect of sports. Teammates encouraged one another to heightened performance and

they seemed to enjoy working together to achieve common goals.

Kelly$_a$: *You become close to your teammates. It helps keep you active. It becomes kind of like you're a joint effort, like everyone coming together and working together and trying to achieve a goal or trying to win or do whatever.*

Being on a team may impact the stress of solo performance. Though each player might feel the pressure to perform well, those who preferred team sports said that they appreciated the fact that they could share responsibility for winning or losing.

Kelly$_a$: *I like the whole the idea of working together and it's not so much pressure too on one person to perform. It's more a team effort.*

Bobby$_a$: *You win together, you lose together…*
The most compelling argument for the role teams play in motivating adolescents to remain involved in sports came from Jeannine and Jermaine who discussed the difficulties Jermaine experienced when his coach favoured other players.

Jeannine$_p$: *He had a choice. We spoke a lot about it, and it was like ride out the season or switch; go to another team.*

Interviewer: *What was the factor, for you Jermaine, to stay and ride out the season?*

Jermaine$_a$: *Well, the team was a good team. I liked the players on the team, and I thought if I push myself then I could change it around. And that's what I did… I pushed myself, I tried at practice, I gave my 110%, and then he [the coach] played me. He started me in a game, and then, from there, it was just great… Then like, my teammates helped me get back up, they're like 'we want you to stay, we need you in this', or that I push myself and I proved myself to them.*

A Comment about Sex Differences
Based on our research assumption that boys and girls might differ in their perception of factors potentially influencing sustained engagement in PA, we reduced and analyzed the interview data separately. We were fully cognizant that frequency differences between codes do not necessarily imply differences between groups; however, we did survey frequency differences in trying to identify variances between boys and girls. We found little that would indicate a marked difference between the sexes. Boys (and their parents) more often referred to parents' contribution as a catalyst to engagement in sport at a young age and male adolescents mentioned that they liked intense sports (rugby, hockey, soccer, basketball) more often than girls. Girls referred to self-motivation somewhat more frequently than boys and consequently to intrinsic motivation, that is, being active because they love the sport they practice. Though sex differences pertinent to sustaining PA engagement were not strongly evident in our data, we would offer a comment from a mother who speaks about adolescent girls' perception of engagement.

Melinda$_p$: *I think one of the things that Holly's always talked about is how there comes a certain point where it's no longer cool for girls to join in sports… Especially in high school, girls who are athletic, all of a sudden, they don't want to get sweaty... or it's not cool anymore to be a jock. And I think that's maybe something that schools could really try to encourage the girls...*

DISCUSSION

The primary purpose of this study was to explore adolescents' perceptions of the psychosocial factors – positive or negative – that influence their sustained engagement in sports and PA. Nested in a framework of reciprocal determinism (10, 12), our data would suggest that personal characteristics of those who remain physically active *(person)* are: 1) passion for the activity in which they are involved (80); 2) positive self-concept (19) shaped by prolonged involvement with the activity; 3) intrinsic (70, 109) as well as extrinsic motivation (34); and, 4) high self-efficacy beliefs translated into a continuous desire for improvement, striving to reach increasingly more difficult goals (12) and engaging in competitive relations with self and others (52). It would appear that the strength of these characteristics support adolescents' self-regulation (16) and help them overcome personal challenges that might impede their PA involvement and ultimately lead to lapses (missed practices) or relapses (abandoning the activity) (81).

Adolescents perceived that participation in sports and PA (*behaviour*) affects several dimensions – mainly social, mental and physical – of their health. Fundamentally, adolescents seem to practice a particular form of PA because they 'love it.' More specifically, they indicated that some of the expected outcomes of engagement influencing their sustained engagement were: 1) opportunities to engage in social interactions; 2) having fun in practice; 3) building confidence and experiencing a sense of accomplishment and efficiency; 4) relieving stress; 5) improving stamina; 6) learning life skills; 7) building character; 8) enhancing self-discipline; and, 9) augmenting mental focus.

Environmental influences (*environment*) arise from different sources (school and community; parents and family; friends and peers), which are also qualitatively distinct in terms of the role they play in adolescents' sustained engagement in sports and PA. Some forms of support are instrumental in that they make engagement possible, others are motivational, and there are those that pose challenges for continued engagement. Beets et al., (20) offered four categories of social support from parents that positively influence sports participation. He defined these as tangible, namely, 1) instrumental (providing equipment, fees, transportation) and 2) conditional (doing activity with / supervising), and as intangible, namely, 1) motivational (encouragement) and 2) informational (discussing benefits of engagement). Framing the findings of our study in the categories offered by Beets et al., and adding the challenges expressed by the participants, a clearer structure seems to emerge regarding the environmental factors that influence PA practice (see Table 2).

Consideration of adolescents' personal characteristics to surmount challenges and engage in self-regulatory processes is crucial to understanding how long-term engagement in PA and sports is facilitated, yet other factors must be encompassed in modeling support structures. In particular, parents must face financial and personal challenges to initiate their children's participation and enable them to remain physically active. Participants' narratives clearly suggest that parents' strongly held value regarding active living serves as a pivotal motivating factor helping

adolescents overcome challenges. Parents who let their values inform their action and select to expand their resources on that which they truly deem truly significant (being privileged enough to do so), provide the tangible and intangible support (20) needed for sustained engagement.

Adolescents need both tangible and intangible forms of support if they are to engage in PA and remain physically active (20). Their capacity to surmount challenges is greatly impacted by a self-concept developed through practice (19). With backup from community resources (57,58), parents are the ones who typically set a cycle of self-concept development in motion (46, 52): practice impacts the adolescent's self-concept, and the adolescent whose self-concept is impacted by practice remains engaged (8). In light of this, it seems arguable that health promotion efforts need to target parents of young children (116) and parents of adolescents to raise their awareness of the extended benefits of active living (2, 25, 26). Health promotion efforts must also highlight the need for parents to offer continued support for physical activity throughout adolescence (17, 18). Furthermore, since challenges faced by parents include financial outflow to enrol their children in organized sports and structured activities (more conducive to influence practice) and that only those privileged enough can afford to do so, justification can be found for all levels of government to increase financial support to families of young children and adolescents in order to facilitate participation of those from different socio-economic status (32).

The current study itemizes psychosocial factors that active adolescents and their parents/guardians identified as influencing youth sustained engagement in sports and PA. Building on principles of youth and family engagement that promote the involvement of youth in addressing issues that affect them (88), it might be valuable to pursue research with sedentary youth and identify, from their viewpoint, the barriers that impede their involvement in PA. Enlisting the help of adolescents who are physically inactive to design interventions and implement programs to help sedentary youth engage in PA would be congruent with these principles.

What are the potential next steps for research in this area? For one, the findings of this investigation show value for informing the design of quantitative instruments for use with a broader sample of active adolescents and their parents/guardians. From this, we might gain deeper insights into characteristics of families and communities that promote long-term engagement in sports and physical activity. This same investigation might also help identify potential threats to continuity that emerge in an adolescent's development or in family dynamics. It would also be of value to identify adolescents who have continued in PA and sports without the kind of support structures identified in this investigation.

An inherent strength of a qualitative approach is that the research findings more fully represent the subjective meanings and experiences of the participants. However, given the boundaries of this research paradigm, a limitation of this study is that the conclusions only apply to the participants involved in the project and cannot be generalized across populations (72). To offset such constraints, we sought

to provide thick descriptions of the data (53) from which readers are then able to draw inferences that might pertain to their own contexts (65). A further limitation of the study is that since parents were present during the interview process, their observations might somehow have influenced the adolescents' perception of the psychosocial factors impacting their sustained engagement in sports and PA. The interviewer in this study was acutely aware of this possibility; she consistently endeavoured to ask adolescents to confirm or counter their parents' assertions when the adult participant presented a novel idea. Finally, though 'member checking' is suggested by some (75, 36), though not by all qualitative investigators (9), as a positive step to confirm the trustworthiness of a study, we did not have the opportunity to confirm the conclusions outlined above with the research participants.

ACKNOWLEDGEMENTS

This research was supported in part by a grant from the Social Sciences and Humanities Research Council of Canada (SSHRC) to the first author.

REFERENCES

1. Active Healthy Kids Canada. Are we driving our kids to unhealthy habits? The 2013 active healthy kids Canada report card on physical activity for children and youth. Toronto: Active Healthy Kids Canada; 2013.

2. Active Healthy Kids Canada. Is Canada in the running: How Canada stacks up against 14 other countries on physical activity for children and youth? 2014. Retrieved from http://www.activehealthykids.ca/ReportCard/2014ReportCard.aspx

3. Ajzen I. Nature and operation of attitudes. Annu Rev Psychol 52: 27-58, 2001.

4. Allender S, Cowburn G, Foster C. Understanding participation in sport and physical activity among children and adults: A review of qualitative studies. Health Educ Res 21(6): 826-835, 2006.

5. Allison KR, Adlaf EM, Dwyer JJM, Lysy D, Irving HM. The decline in physical activity among adolescent students: A cross-national comparison. Can J Public Health 98(2): 97-100, 2007.

6. Allison, KR, Dwyer JM, Goldenberg E, Fein A, Yoshida KK, Boutilier M. Male adolescents' reasons for participating in physical activity, barriers to participation, and suggestions for increasing participation. Adolescence 40: 155-170, 2005.

7. Allison KR, Dwyer, JM, Makin S. Self efficacy and participation in vigorous physical activity by high school students. Health Educ Behav 26: 12-24, 1999.

8. Anderson CB, Mâsse LC, Zhang H, Colemand KJ,Chang, S. Contribution of athletic identity to child and adolescent physical activity. Am J Prev Med 37(3): 220-226, 2009.

9. Angen MJ. Evaluating interpretive inquiry: Reviewing the validity debate and opening the dialogue. Qual Health Res 10(3): 378-395, 2000.

10. Bandura A. Social learning theory. Englewood Cliffs: Prentice-Hall; 1977.

11. Bandura A. Social foundations of thought and action: A social cognitive theory. Englewood Cliffs: Prentice-Hall; 1986.

12 Bandura A. Social cognitive theory. In: Vasta R, editor. Annals of child development. Vol. 6. Six theories of child development. Greenwich: JAI Press; 1989. p. 1-60.

13. Bandura A. Self-efficacy: The exercise of control. Englewood Cliffs: Prentice-Hall; 1997.

14. Baranowski T, Perry CL, Parcel, GS (2002). How individuals, environments, and health behavior interact. In: Glanz K, Rimer BK, Lewis FM. 3rd ed. Health behaviour and health education: Theory, research and practice. San Francisco: Jossey-Bass; 2002. p. 165-184.

15. Bartholomew, LK, Parcel GS, Kok G, Gottlieb NH, Fernández, ME. Planning health promotion programs: An intervention mapping approach. 3rd ed. San Francisco: Jossey-Bass; 2011.

16. Bauer IM, Baumesiter RF. Self-regulatory strength. In: Vohs KD, Baumeister RF. Handbook of self-regulation. New York: The Guilford Press; 2011. p. 64-82.

17. Bauer KW, Laska MN, Fulkerson JA, Neumark-Sztainer D. Longitudinal and secular trends in parental encouragement for healthy eating, physical activity, and dieting throughout the adolescent years. J Adolesc Health 49(3): 306-311, 2011.

18. Bauer KW, Nelson MC, Boutelle KN, Neumark-Sztainer D. Parental influences on adolescents' physical activity and sedentary behavior: Longitudinal findings from Project EAT-II. Int J Behav Nutr Phys Act 5(12): 2008. doi 10.1186/1479-5868-8-12

19. Baumeister, RF, editor. The self in social psychology. Philadelphia: Psychology Press; 1999.

20. Beets MW, Cardinal BJ, Alderman, BL. Parental social support and the physical activity-related behaviors of youth: A review. Health Educ Behav 37(5): 621-644, 2010.

21. Bélanger M, Casey M, Cormier M, Filion AL, Martin G, Aubut S, Chouinard P, Savoie S-P, Beauchamp J. Maintenance and decline of physical activity during adolescence: Insights from a qualitative study. Int J Behav Nutr Phys Act 21(8): 117-125, 2011.

22. Bélanger M, Gray-Donald K, O'Loughlin J, Paradis G, Hanley J. When adolescents drop the ball sustainability of physical activity in youth. Am J Prev Med 37: 41-49, 2009.

23. Berger I, O'Reilly N, Parent M, Seguin B, Hernandez T. Determinants of Sport Participation Among Canadian Adolescents. Sport Manag Rev 11(3): 277-307, 2008.

24. Biddle SJH, Atkin AJ, Cavill N, Foster C. Correlates of physical activity in youth: A review of quantitative systematic reviews. J Sport Exerc Psychol 41(1): 25-49, 2011.

25. Biddle SJH, Gorely T, Stensel DJ. Health-enhancing physical activity and sedentary behaviour in children and adolescents**.** J Sports Sci 22(8): 679-701, 2004.

26. Bize R, Johnson JA, Plotnikoff RC. Physical activity level and health-related quality of life in the general adult population: A systematic review. Prev Med 45(6): 401-415, 2007.

27. Blumer H. Symbolic Interactionism: Perspective and method. Englewood Cliffs: Prentice-Hall; 1969.

28. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol 3(2): 77-101, 2006.

29. Canadian Society of Exercise Physiology. Canadian Physical Activity Guidelines. 2012 Scientific Statement: 2012. Retrieved from http://www.csep.ca/CMFiles/Guidelines/CanadianPhysicalActivityGuidelinesStatements_E_2012.pdf

30. Casey, MM, Eime RM, Payne WR, Harvey JT. Using a socioecological approach to examine participation in sport and physical activity among rural adolescent girls. Qual Health Res 19(7): 881-893, 2009.

31. Centers for Disease Control and Prevention. Physical activity for everyone: How much physical activity do children need? 2011. Retrieved from http://www.cdc.gov/physicalactivity/everyone/guidelines/children.html

32. Cislak A, Safron M, Pratt M, Gaspar T, Luszcynska A. Family-related predictors of body weight and weight-related behaviours among children and adolescents: A systematic umbrella review. *Child Care Health Dev* 38(3): 321-331, 2012.

33. Clark W. Kid's sports. 2014. Retrieved from http://www.statcan.gc.ca/pub/11-008-x/2008001/article/10573-eng.htm#a1

34. Coleman L, Cox L, Roker D. Girls and young women's participation in physical activity: Psychological and social influences. Health Educ Res 23(4): 633-647, 2008.

35. Creswell JW. Research design: Qualitative and quantitative approaches. Thousand Oaks: SAGE; 1994.

36. Creswell JW. Qualitative inquiry and research design: Choosing among five designs. Thousand Oaks: Sage; 1998.

37. Davison KK, Schmalz DL, Symons-Downs D. Hop, skip…no! Reasons adolescent girls disengage from physical activity. Ann Behav Med 39(3): 290-302, 2010.

38. De Meester F, van Lenthe FJ, Spittaels H, Lien N, De Bourdeaudhuij I. Interventions for promoting physical activity among European teenagers: a systematic review. Int J Behav Nutr Phys Act 6(82): 2009. doi:10.1186/1479-5868-6-82.

39. Deci EL, Ryan RM. Intrinsic motivation and self-determination in human behavior. New York: Plenum; 1985.

40. Deci EL, Ryan RM. Handbook of self-determination research. Rochester: University of Rochester Press; 2002.

41. Deforche B, Van Dyck D, Verloigne M, De Bourdeaudhuij I. Perceived social and physical environmental correlates of physical activity in older adolescents and the moderating effect of self-efficacy. Prev Med 50(1): 24-29; 2010.

42. Dey I. Qualitative data analysis: A user-friendly guide for social scientists. London: Routledge; 1993.

43. Dishman RK, Dunn AL, Sallis JF, Vandenbergh RJ, Pratt CA. Social-cognitive correlates of physical activity in a multi-ethnic cohort of middle-school girls: Two-year prospective study. J Pediatr Psychol 35(2): 188-198, 2009.

44. Duncan SC, Duncan TE, Strycker LA, Chaumeton NR. A cohort-sequential latent growth model of physical activity from ages 12 to 17 years. Ann Behav Med 33(1): 80–89, 2007.

45. Dwyer JM, Allison KR, Goldenber ER, Fein AJ, Yoshida KK, Boutiller MA. Adolescent girls' perceived barriers to participation in physical activity. Adolescence 41(161): 75-79, 2006.

46. Edwardson CL, Gorely T. Parental influences on different types and intensities of physical activity in youth: A systematic review. Psychol Sport Exerc 11(6): 522-535, 2010.

47. Edwardson CL, Gorely T, Pearson N, Atkin A. Sources of activity-related social support and adolescents' objectively measured after-school and weekend physical activity: Gender and age differences. J Phys Act Health 10(8): 1153-1158; 2013.

48. Engel GL. The need for a new medical model: A challenge for biomedicine. Sci
196: 129–136, 1977.

49. Fenton S, Duda JL, Quested E, Barrett T. Coach autonomy support predicts autonomous motivation and daily moderate-to-vigorous physical activity and sedentary time in youth sport participants. Psychol Sport Exerc 15(5): 453–463, 2014.

50. Ferreira I, van der Horst K, Wendel-Vos W, Kremers S, van Lenthe FJ, Brug J. Environmental correlates of physical activity in youth: a review and update. Obes Rev 8(2): 129-154, 2007.

51. Fraser H. Doing narrative research: Analysing personal stories line by line. Qual Soc Work 3(2): 179-201, 2004.

52. Frederick-Recascino CM, Schuster-Smith H. Competition and intrinsic motivation in physical activity: A comparison of two groups. J Sport Behav 26(3): 240-254, 2003.

53. Geertz C. The interpretation of cultures: Selected essays. New York: Basic Books; 1973.

54. Gibbons SL, Humbert ML. What are middle-school girls looking for in physical education? Can J Educ 31(1): 167-186, 2008.

55. Glaser BG, Strauss AL. The discovery of grounded theory: Strategies for qualitative research. Chicago: Aldine Publishing Company; 1967.

56. Golden SD, Earp JAL. An ecological perspective on health promotion programs. Health Education & Behavior 39(3): 364-372, 2012.

57. Gordon-Larsen P, McMurray RG, Popkin BM. Determinants of adolescent physical activity and inactivity patterns. Pediatr 105(6): 2000. Retrieved from
http://pediatrics.aappublications.org/content/105/6/e83.full.pdf+html

58. Graham DJ, Schneider M, Dickerson SS. Environmental resources moderate the relationship between social support and school sports participation among adolescents: A cross-sectional analysis. Int J Behav Nutr Phys Act 8(34): 1-10, 2011.

59. Gray WN, Janicke DM, Ingerski LM, Silverstein JH. The impact of peer victimization, parent distress and child depression on barrier formation and physical activity in overweight youth. J Dev Behav Pediatr 29: 26-33, 2008.

60. Gustafson SL, Rhodes, RE. Parental correlates of physical activity in children and early adolescents. Sports Med 36(1): 79-97, 2006.

61. Hagger MS, Chatzisarantis, NLD, Biddle SJH. A meta-analytic review of the theories of reasoned action and planned behavior in physical activity: Predictive validity and the contribution of additional variables. J Sport Exerc Psychol 24(1): 3-32, 2002.

62. Hallal PC, Andersen LB, Bull F, Guthold R, Haskell W, Ekelund U. Global physical activity levels: Surveillance progress, pitfalls, and prospects. Lancet 380: 247-257, 2012.

63. Hanson MD, Chen E. Socioeconomic status and health behaviors in adolescence: A review of the literature. J Behav Med (30)3: 263-285, 2007.

64. Hassandra M. Goudas M, Chroni A. Examining factors associated with intrinsic motivation in physical education: A qualitative approach. Psychol Sport Exerc 4: 211-223, 2003.

65. Hornsburgh D. Evaluation of qualitative research. J Clin Nurs 12(2): 307-312, 2003.

66. Human Resources and Skills Development Canada. Indicators of well-being in Canada. 2013. Retrieved from http://www4.hrsdc.gc.ca/.3ndic.1t.4r@-eng.jsp?iid=8

67. Huotari P, Nupponen H, Mikkelsson L, Laakso L, Kujala U. Adolescent physical fitness and activity as predictors of adulthood activity. J Sports Sci 29(11): 1135-1141, 2011.

68. Ingledew, DK, Sullivan G. Effects of body mass and body image on exercise motives in adolescence. Psychol Sport Exerc 3(4): 323-338, 2002.

69. Jöessar H, Hein V. Psychosocial determinants of young athletes' continued participation over time. Percept Mot Skills 113(1): 51-66, 2011.

70. Johnson B, Christensen L. Educational research: Quantitative, qualitative, and mixed approaches. 2nd ed. Boston: Pearson Education, Inc; 2004.

71. Joseph J, Breslin C, Skinner H. Critical perspectives on the transtheoretical model and stages of change. In: Tucker JA, Donovan DM, Marlatt GA, editors. Changing addictive behavior: Bridging clinical and public health strategies. New York: Guilford Press; 1999. p. 160-190.

72. Kvale S. Interviews: An introduction to qualitative research interviewing. Thousands Oaks, CA: Sage; 1996.

73. Ketteridge A, Boshoff K. Exploring the reasons why children participate in physical activity and identifying strategies that facilitate their involvement in such activity. Aust Occup Ther J 55(4): 273-282, 2008.

74. Laguna M, Ruiz JR, Gallardo C, Garcia-Pastor T, Lara MT, Aznar S. Obesity and physical activity patterns in children and adolescents. J Paediatr Child Health 49(11): 942-949, 2013.

75. Lincoln YS, Guba EG. Naturalistic inquiry. Beverly Hills: Sage Publications; 1985.

76. Lubans DR, Morgan PJ, McCormack A. Adolescents and school sport: The relationship between beliefs, social support and physical self-perception. Phys Educ Sport Pedagogy 16(3): 237-250, 2011.

77. Luszczynska A, Schwarzer, R. Multidimensional health locus of control: Comments on the construct and its measurement. J Health Psychol 10: 633-642, 2005.

78. Lytle LA, Murray DM, Evenson KR, Moody J, Pratt CA, Metcalfe L, Parra-Medina D. Mediators affecting girls' levels of physical activity outside of school: Findings from the trial of activity in adolescent girls. Ann Behav Med 38: 124-136, 2009.

79. Macdonald-Wallis K, Jago R, Sterne JC. Social network analysis of childhood and youth physical activity: A systematic review. Am J Prev Med 43(6): 636-642, 2012. doi:10.1016/j.amepre.2012.08.021

80. Mageau GA, Vallerand RJ, Charest J, Salvy SJ, Lacaille N, Bouffard T, Koestner R. On the development of harmonious and obsessive passion: The role of autonomy support, activity specialization, and identification with the activity. J Pers 77(3): 601-646, 2009.

81. Marlatt, GA, Baer JS, Quigley LA. Self-efficacy and addictive behavior. In: Bandura A, editor. Self-efficacy in changing societies. New York: Cambridge University Press; 1995. p. 289-315.

82. Maxwell JA. Qualitative research design: An interactive approach. Thousand Oaks: Sage; 1996.

83. Mcbrearty M. (2010). Women, obesity, and weight loss: Bridging the intention-behaviour gap (Doctoral dissertation). Retrieved from ProQuest Dissertation and Theses. NR67361

84. McLeroy KR, Bibeau D, Steckler A, Glanz K. An ecological perspective on health promotion programs. Health Educ Q 15: 351-377, 1988.

85. Miles MB, Huberman AM. Qualitative data analysis: An expanded sourcebook. Thousand Oaks: Sage; 1994.

86. Moore JB, Jilcott SB, Shores KA, Evenson KR, Brownson RC, Novick LF. A qualitative examination of perceived barriers and facilitators of physical activity for urban and rural youth. Health Educ Res 25(2): 355-367, 2010.

87. Olds, TS, Ferrar KE, Schranz NK, Maher CA. Obese adolescents are less active than their normal-weight peers, but wherein lies the difference? J Adolesc Health 48(2): 189-195, 2011.

88. Osher TW, Osher DM. (2002). The paradigm shift to true collaboration with families. J Child Fam Stud, 11(1), 47-60.

89. Patton MQ. Qualitative research & evaluation methods. 3rd ed. Thousand Oaks: Sage; 2002.

90. Plotnikoff, RC, Lubans, DR, Costigan, SA, McCargar L. A test of the theory of planned behavior to predict physical activity in an overweight/obese population sample of adolescents from Alberta, Canada. Health Educ Behav 40(4): 415-425, 2013.

91. Pugliese J, Tinsley B. Parental socialization of child and adolescent physical activity: A meta-analysis. J Fam Psychol 21(3): 331-343, 2007.

92. Rosenstock IM, Strecher VJ, Becker MH. Social learning theory and the Health Belief Model. Health Educ Q 15(2): 175-183,1988.

93. Sallis JF, Prochaska JJ, Taylor WC. A review of correlates of physical activity of children and adolescents. Med Sci Sports Exerc 32(5): 963–975, 2000.

94. Sallis JF, Owen N, Fisher EB. Ecological models of health behavior. In: Glanz K, Rimer BK, Viswanath K. 3rd edition. Health behavior and health education: Theory, research, and practice. San Francisco: Jossey-Bass; 2008. p. 465-486.

95. Schwarzer R. Social-cognitive factors in changing health-related behavior. Curr Dir Psychol Sci 10: 47-51, 2001.

96. Schwarzer R, Fuchs R. Self-efficacy and health behaviors. In: Conner M, Norman P, editors. Predicting health behavior: Research and practice with social cognition models. Buckingham: Open University Press; 1996. p. 163-196.

97. Schwarzer R, Sniehotta FF, Lippke S, Luszczynska A, Scholz U, Schuz B, Wegner M, Ziegelmann JP. On the assessment and analysis of variables in the health action process approach: Conducting an investigation. Berlin: Freie Universität; 2003. Retrieved from http://web.fu-berlin.de/gesund/hapa_web.pdf.

98. Shen B, Wingert R, Li W, Sun H, Rukavina PB. An amotivation model in physical education. J Teach Phys Educ 29(1): 72-84, 2010.

99. Sniehotta FF, Scholz U, Schwarzer R. Bridging the intention-behaviour gap: Planning, self-efficacy, and action control in the adoption and maintenance of physical exercise. Psychol Health 20: 143–160, 2005.

100. Stake R. The art of case study research. Thousand Oaks: Sage; 1995.
101. Stalsberg R, Pedersen AV. Effects of socioeconomic status on the physical activity in adolescents: A systematic review of the evidence. Scand J Med Sci Sports 20(3): 368-383, 2010.

102. Stankov I, Olds T, Cargo M. Overweight and obese adolescents: What turns them off physical activity? Int J Behav Nutr Phys Act 9: 58, 2012. doi:10.1186/1479-5868-9-53.

103. Storey KE, Forbes LE, Fraser, SN, Spence JC, Plotnikoff RC, Raine KD, McCargar LJ. Adolescent weight status and related behavioural factors: Web survey of physical activity and nutrition. J Obes: 1-8, 2012. doi:10.1155/2012/342386

104. Story M, Nanney MS, Schwartz MB. Schools and obesity prevention: Creating school environments and policies to promote healthy eating and physical activity. Milbank Q 87(1): 71-100, 2009.

105. Strauss A, Corbin J. Basics of qualitative research: Techniques and procedures for developing grounded theory. Thousand Oaks: Sage; 1998.

106. Taylor IM, Ntoumanis N, Standage M, Spray CM. Motivational predictors of physical education students' effort, exercise intentions, and leisure-time physical activity: A multilevel linear growth analysis. J Sport Exerc Psychol 32(1): 99-120, 2010.

107. Teixeira PJ, Carraça EV, Markland D, Silva MN, Ryan RM. Exercise, physical activity, and self-determination theory: A systematic review. Int J Behav Nutr Phys Act 9: 2012.

108. Tremblay MS, Colley RC, Saunders TJ, Healy GN, Owen N. Physiological and health implications of a sedentary lifestyle. Appl Physiol Nutr Metab 35: 725-740, 2010.

109. Vallerand RJ. Intrinsic and extrinsic motivation in sport. In: Spielberger CD. Encyclopedia of Applied Psychology (vol. 2). Oxford: Elsevier Academic Press; 2004. p. 427- 435.

110. van der Horst K, Paw MJ, Chin A, Twisk JWR, van Mechelen W. A brief review on correlates of physical activity and sedentariness in youth. Med Sci Sports Exerc 39: 1241-1250, 2007.

111. Warwick L. Sports Etude program gives kids a head start. Montreal Families: 2009. Retrieved from http://www.montrealfamilies.ca/Montreal-Families/March-2009/Sports-study-program-gives-kids-a-head-start/

112. Weiss MR, Williams L. The why of youth sport involvement: A developmental perspective on motivational processes. In: Weiss MR, editor. Developmental Sport and Exercise Psychology: A Lifespan Perspective. Morgantown: Fitness Information Technology; 2004. p. 223–268.

113. Whitt-Glover MC, Taylor WC, Floyd MF, Yore MM, Yancey AK, Matthews CE. Disparities in physical activity among US children and adolescents: Prevalence, correlates, and intervention implications. J Public Health Policy 30(S1): S309–S334, 2009.

114. Williamson DL, Carr J. Health as a resource for everyday life: Advancing the conceptualization. Crit Public Health 19(1): 107-122, 2009.

115. World Health Organization (WHO). The Ottawa charter for health promotion. Ontario: WHO; 1986.

116. Yao CA, Rhodes RE. Parental correlates in child and adolescent physical activity: A meta-analysis. Int J Behav Nutr Phys Act 12(10): 2015. doi 10.1186/s 12966-015-0163-y

117. Yin RK. Case study research: Design and methods. 3rd edition. Thousand Oaks: Sage; 2003.

118. Zeldin S, Petrokubi J, MacNeil C. Youth-adult partnerships in decision making: Disseminating and implementing an innovative idea into established organizations and communities. Am J Community Psychol 41: 262–277, 2008. doi:10.1007/s10464-008-9158-z

[i] The Sport Études program, part of the public school system in the Greater Montreal area, is geared to elite/serious athletes. It provides an opportunity to practice sports on a daily basis provided that students maintain required academic standards (104).

[ii] An exception was made to include a participant who had recently graduated from high school and

was attending one of Québec's CEGEP – Collège d'enseignement général et professionnel known in English as General and Vocational College. This participant met all other criteria for selection.

[iii] For the sake of clarity, excerpts presented in this article have been edited of fillers (e.g., hum, er, like, you know…).

[iv] In the verbatim quotations below, comments from parents or guardians are subscripted with the letter "p" and those from adolescents are subscripted with the letter "a".