

Increasing Participation in After-School Sport and Physical Activity among Children and Youth: A Case Study of Providers in Ontario, Canada

Accroître la participation des enfants et des jeunes aux programmes parascolaires axés sur le sport et l'activité physique : Étude de cas auprès des responsables de l'Ontario (Canada)

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Abstract

Many children and youth that do not participate in after-school sport and physical activity (ASSPA) programs are opting instead for relatively sedentary activities. This investigation sought how to enhance the experiences and participation rates in ASSPA among children and youth through a mixed-method (survey and personal and focus group interviews) case study of over 300 ASSPA providers (individual practitioners and administrators). The results highlighted the joint role of demographic-intrapersonal, interpersonal, and environmental factors. Prominent demographic-intrapersonal barriers included participants' prior experiences, motivation, money, understanding of participation benefits, and an urban or rural setting. The dominant interpersonal recommendation was better engagement of participants in family-oriented and socially-engaging programs. Noteworthy environmental themes were adequate resources, affordable programming, provincial policies, organizational coordination (particularly between schools and community agencies), and ensuring quality, quantity, and inclusivity in ASSPA programming and delivery. Providers prioritized inclusive ASSPA programming for physically active lifestyles, life skills, and movement skills rather than the development of elite athletes.

Résumé

Beaucoup d'enfants et de jeunes qui ne participent pas aux programmes parascolaires axés sur le sport et l'activité physique optent plutôt pour des activités sédentaires. Ce projet visait à trouver des façons d'encourager les enfants et les jeunes à participer davantage à ces types de programmes et de leur faire vivre des expériences positives. Une étude de cas à méthode mixte (sondage, entrevues personnelles et groupes de consultation) a été réalisée auprès de plus de 300 responsables de programmes parascolaires axés sur le sport et l'activité physique (personnes sur le terrain et gestionnaires). Les résultats confirment le rôle conjoint de facteurs démographiques intrapersonnels, interpersonnels et environnementaux. Il en ressort d'importants obstacles démographiques interpersonnels, entre autres les expériences passées, la motivation, les ressources financières, la compréhension des bienfaits de la participation et l'appartenance à un milieu urbain ou rural. La principale recommandation interpersonnelle avait trait à la participation accrue des enfants et des jeunes à des programmes familiaux et socialement intéressants. L'étude mettait aussi en lumière diverses thématiques environnementales, dont la suffisance des ressources, le montant des frais de participation au programme, les politiques provinciales, la coordination organisationnelle (surtout entre les écoles et les organismes communautaires) et la garantie de qualité, de quantité et d'inclusivité des programmes parascolaires axés sur le sport et l'activité physique. Les responsables valorisaient grandement des programmes parascolaires qui mettaient l'accent sur la promotion de modes de vie actifs, sur les compétences de vie et sur les habiletés motrices plutôt que sur la formation d'athlètes d'élite.

Introduction

Most (90-93%) of Canadian and U.S. children and adolescents fall short of meeting the current recommended guidelines of being moderately to vigorously physically active for 60 minutes at least five or six days per week (Colley, Garriguet, Janssen, Craig, Clarke, & Tremblay, 2011; Troiano, Berrigan, Dodd, Masse, Tilert, & McDowell, 2008). There is also a decline of sport and physical activity levels from late childhood through adolescence (Allison, Dwyer, & Goldenberg et al., 2005), renders this age group particularly important for study. There is evidence that the hours immediately after-school (15:00-18:00) can be optimal times of holistic development (e.g., physical, emotional, social, cognitive, spiritual) for students particularly if they are engaged in purposeful, safe, relatively supervised, supportive, and enjoyable skill-building activities such as sports and/or recreational activities (Cameron, Wolfe, & Craig, 2007; Eccles, Barber, Stone, & Hunt, 2003). Dzewaltowski (2008) reports, however, that a large number of U.S. children (62.3% of those in grades K-8) are not involved in organized after-school programs and are often unsupervised at home (26% of 10-12 year-olds and 47% of 14 year-olds) during the after-school hours. These individuals are more prone to spending that time in more sedentary and solitary activities such as watching television and engaging with internet, and "counterproductive" activities such as eating more quantities of less nutritious food, being sexually active, abusing drugs and/or alcohol, and behaving anti-socially (AHKC, 2010; Cameron et al., 2007; Eccles et al., 2003). As a result, more parents are seeking after-school programs to enroll their children mainly for supervision and for improved academic achievement rather than for physical activity benefits (Dzewaltowski, 2008). Individuals responsible for organizing and delivering after-school sport and physical activity (ASSPA) programming (hereafter referred to as providers) are a critical factor in ASSPA enjoyment and participation rates (Dzewaltowski, 2008). This study investigated demographic-intrapersonal, interpersonal, and environmental factors deemed prominent by ASSPA providers in the province of Ontario, Canada for enhancing the experiences and participation rates of children and youth in ASSPA.

After School Sport and Physical Activity in Ontario

The province of Ontario (Canada) covers more than one million square kilometres and houses more than a third of Canada's population. Active Healthy Kids Canada (AHKC, 2010) reports that a significant number of its children and youth are not involved in after school sport and physical activity (ASSPA) programs. According to AHKC (2010), only about 12% of Ontario children and youth met or exceeded the recommended level of daily physical activity and many fail to use the after-school time to engage in active sport and physical activity. Research among Ontario adolescents (NHIP, 2003) corroborates other research on the excessive numbers of sedentary adolescents (35.4 % of Ontario adolescents and 21.8% of adolescents in

Northern Ontario are physically inactive). Further, there was a significant quantitative decrease from 1992 to 2005 in numbers of Canadian children (especially boys) who participated regularly in organized sports activities (Statistics Canada, 2008).

There is some federal (i.e., national), provincial (i.e., state), and municipal (i.e., region or county) government and private sector support for initiatives to increase physical activity among children and youth in Ontario, specifically including the after-school period. For example, federal and provincial/territorial ministers responsible for sport, physical activity and recreation have set new national recommended levels of physical activity for children and youth age 5 to 19 to until 2012 (FPTM, 2007). Provincial sport organizations, sport commissions, municipal government parks, recreation, and public health agencies, and many non-profit physical activity clubs (e.g., YMCA, Boys and Girls Clubs) are some of the many organizations that facilitate ASSPA opportunities in the community. The primary provider of school-based ASSPA is the Ontario Federation of School Athletic Associations (OFSSA) and each of its affiliate regional and local associations. A major source of funding for some of these ASSPA groups has been the Provincial Ministry of Health Promotion and Sport through grants awarded to programs such as its After School Program (in 340 sites across Ontario), the Community Use of Schools Agreements, and base sport funding to provincial sport organizations, OFSAA, and others (e.g., Raise the Bar; Healthy Communities Framework).

In the opinion of the author, these initiatives within Ontario respond, in part, to ongoing needs for comprehensive, systematic, affordable, accessible, collaborative, and visionary outcomes stemming from after-school physical activity and healthy living programs among children and youth. More Ontario-based research is needed into how this can be accomplished with potential connections applicable to other similar contexts. The lack of comprehensive (full ecological analysis) case study research into ASSPA barriers at the grassroots (provider) level further warrants this investigation (Dzewaltowski, 2008; Sallis, Prochaska, & Taylor, 2000).

Ecological Theoretical Framework

The ecological theoretical framework (McElroy, Bibeau, Steckler, & Glanz, 1988) served as the foundation of this study. It consists of three main categories of correlates between sport and physical activity and children and youth; namely, the demographic-intrapersonal (e.g., biological, psychological, behavioural), interpersonal (e.g., influence of peers, parents, siblings, instructors), and environmental (e.g., organizational dynamics, infrastructure, policy). This framework has been illustrated in some of the current research literature (Bauman, Sallis, Dzewaltowski, & Owen, 2002; Sallis et al., 2000) on this topic. The framework stems mainly from social cognitive theory fundamentally asserting that human behaviour results mainly from the interactive effect of one's environment, individual characteristics, and behaviours (Bandura, 1986).

Within ecological theory for children and youth sport and physical activity "there are multiple correlates within each category of variables ...which strongly suggests a very complex causal web...demanding a multilevel ecologic approach to understanding physical activity" (Bauman et al., 2002, p. 10). For example, using data from the 2005 General Social Survey, Clark (2008) notes that Canadian "children are likely to participate in sports if they live in neighbourhoods that are considered safe for outside play" and that "neighbourhood disorder is more likely to occur in places that have higher levels of low income, thereby limiting sports participation among children" (p. 58). Increased dual-parent work commitments could also be one of many contributing factors in sport participation rates. To illustrate, Marshall (2009) reports that the majority of households with children in Canada in 2008 were dual-earning (both

mothers and fathers employed) collectively working on average 64.8 hours per week (up 13% from 57.6 per week in 1976).

School-based ASSPA initiatives such as interscholastic sports have been inversely associated with many adverse (e.g., sedentary screen-time) health-related factors among children and youth (Bocarro, Kanters, Casper, & Forrester, 2008). Further, most students do not participate in these programs because of their hierarchical (i.e., relatively authoritative and exclusive) structure resulting in increasing elimination of less-able athletes each year (Brustad, Vilhjalmsson, & Fonseca, 2008). Cross-sectional associations (see Table 1 and reviews by Malina, Bouchard, & Bar Or, 2004; Sallis et al., 2000) also exist between sport and/or physical activity and perceived competence, body mass index, attitude towards physical activity, screen time, social support for physical activity from parents and friends, leader characteristics, climate, transportation, gender, and the accessibility of necessary facilities and equipment.

This investigation sought information about how to enhance the experiences and participation rates in ASSPA among children and youth through a mixed-method (survey, personal interviews, and focus group interviews) case study of over 300 ASSPA providers (i.e., practitioners, administrators, parents, stakeholders) representing a range of sport and physical activity community organizations across the province on Ontario, Canada. Specific demographic-intrapersonal (e.g., motivation, work, money, body appearance, transportation, weather, safety, gender, use of technology), interpersonal (e.g., friends, parents, leaders, ethnic beliefs), and environmental (e.g., organization, school and community opportunities, policy) sport and/or physical activity barriers posited by the ecological conceptual framework (McElroy et al., 1988) were assessed. For the purposes of this study, the ASSPA time frame is from approximately 15:00 to 18:00. Sport and physical activity are defined as all forms of physical activity which, whether organized (structured) or not, foster improvements in play and social experiences, physical fitness, and mental well-being.

Methods

Procedure

As a common method of policy-science research (Pal, 2005), a mixed-method singleintrinsic case study research design was used in this study to improve understanding of how ASSPA in children and youth of Ontario (Canada) might be enhanced. Subsequent discussion asserts potential inferences of this study to other contexts. Creswell (2003, 2007) defines a case study as a detailed inquiry of "an issue explored through one or more cases within a bounded system" (2007, p. 73) that involves "a variety of data collection procedures over a sustained period of time" (2003, p. 15). In other words, to increase trustworthiness, data was "triangulated" (Willis, 2007) through the collection of both qualitative (semi-structured personal and focus group interviews, short answer survey questions) and quantitative (Likert-style survey items) data. The data were from providers (i.e., practitioners, administrators, and stakeholders such as and parents) representing a wide variety of school and community ASSPA organizations across nine regions of the province of Ontario, Canada. Prior to collecting data, ethics approval for the study was attained from a university ethics board and informed consent was attained from all participants. Confidentiality of participants and organizations was ensured (pseudonyms were used). Purposeful participant (and organization) sampling - choosing interviewees who demonstrate critical and diverse perspectives of the program or process under study - was used (Creswell, 2007). For example, experienced providers (e.g., practitioners and administrators) representing school physical education, inter-school sports, public health, parks and recreation,

community sports, and not-for-profit ASSPA organizations were interviewed. Since the number and identity of study participants and organizations was unknown prior to the study, the emerging data (collected) helped to inform and guide subsequent selections of relevant participants (Patton, 2002). For each of the triangulated sources of data, critical aforementioned ASSPA factors among children and youth emerging from research within the socio-ecological theoretical framework (McElroy et al., 2000) were explored. Reflecting the theoretical complexity and previous categorizations of factors related to sport and physical activity participation in children and youth using the ecological framework (e.g., Bauman et al., 2002; Sallis et al., 2000), demographic factors were integrated with biological, psychological, and behavioural intrapersonal factors in the demographic-intrapersonal category.

Participants and Measures

Online survey. An online survey titled After-School Sport and Physical Activity Needs Analysis Survey was designed and administered by the primary investigator to assess prominent socio-ecological child and youth ASSPA participation factors and their potential remedy. Items on the survey assessed providers' demographic data (e.g., age, gender, ASSPA role), 25 Likertstyle items to determine the degree (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, and 5=strongly agree) they felt each of the stated ASSPA factors (see Table 1) was relevant to their setting. Items were divided into sections by each of the three ecological components (demographic-intrapersonal, interpersonal, and environmental) and began with the question stem followed by the actual factor being assessed (e.g., "More children and youth do not participate in quality after-school sport and physical activity in my region of Ontario because they do not have access to transportation.") An additional item involved allotting a percentage (totalling 100%) to each of several potential desired outcomes (e.g., active living, life skills, elite athlete development) for ASSPA programs for children and youth. The survey was pilot tested for comprehension content validity and by a variety of adult providers (n = 12 including five with significant theoretical and practical experience in physical activity for children and youth) prior to it being available online to the survey participants in this study. This led to the alteration of only a few words (e.g., responsibilities) in order to maximize clarity. The survey was designed and pilot tested in English and then translated into French (by an official translator hired for this purpose and unknown to the authors) and posted online with both English and French choices to providers invited to participate. The translator also translated the 12 surveys completed in French into English for subsequent analysis (coding).

Prior to their participation, invitations to complete the survey were sent by e-mail to all providers participating in the personal and focus-group interviewees along with public health physical activity promoters in several municipalities and as a link in monthly newsletters to members of Parks and Recreation of Ontario, Ontario Sport for Life, and Physical and Health Education Canada (Ontario members). Volunteering participants clicked on a web address (link) that took them to the on-line survey housed in the Survey Monkey software. Of the survey completers (n = 312), 63.7% were females, 36.3% were males and most (81.2%) were between 26 and 55 years of age. The categories of city population size were adapted from those used by Coté, MacDonald, Baker, and Abernethy (2006) as urban (>50,000 inhabitants) and rural (< 50,000 inhabitants). Distributions revealed 86 providers (28%) resided in rural areas whereas 223(71%) were in a more urban area. The ASSPA roles (note that providers could indicate more than one) with children and youth varied from parent (34.3%), coaches (29.7%), physical and health education teachers (27.6%), recreation (22.5%) or public health (20.5%) personnel, high school athletic directors (12.8%), local government officials (12.4%), provincial or national sport

organization members (11.4%), parks officials (4.8%), and others (university athletic administrators, school principals, and provincial government officials).

Personal and focus-group interviews. For the semi-structured personal (n = 25) and focus-group interviews (n = 10), initial contacts and arrangements were made in advance by email or phone with the executives of major provincial ASSPA organizations in Ontario and affiliated experts (e.g., non-profit organizations and government ministries and programs). The personal interviews (lasting 30-60 minutes) and focus group interviews (lasting approximately two hours) were moderately structured through the inclusion of several set questions that prompted interviewees to reflect on and make recommendations pertaining to the key demographic-intrapersonal, interpersonal, and environmental ASSPA factors outlined earlier. The focus group interviews were conducted in the eight diverse regions across Ontario (Kitchener-Waterloo, St. Catharines, Burlington, Toronto, Kingston, Ottawa, Sudbury, and Thunder Bay) and each had an average of six participants from a variety of ASSPA providers (N = 60) such as municipal public health and parks and recreation departments, non-profit organizations (e.g., YMCA, Boys and Girls Clubs), a local or regional sports council, a school athletic director, school physical education, and post-secondary athletics. Two of the focus group interviews were held with university experts (e.g., recreational and athletic administrators, professors of physical education, kinesiology, recreation, education, sports management, and community health). Interviews were held with individuals for whom a focus-group interview was not feasible. Data consisted of detailed notes typed by the principal investigator or a research assistant consisting of the key statements during the interview (Willis, 2007). Wherever feasible and approved, the personal and focus group interviews were audiotaped for subsequent confirmation of field note trustworthiness. Most (n = 19) of the personal interviews conducted were performed during face-to-face meetings whereas the others (n = 6) were by phone.

Data Analysis

Survey data was collected using the Survey Monkey software and then entered and analyzed using the 2009 version of the Statistical Program for the Social Sciences (SPSS). To better tabulate, report, and interpret the means of each item (see Table 1), those with a mean score over 2.50 were considered "disagreements," between 2.50 and 3.50 were labelled "neutral," and those over 3.50 were categorized as "agreements." An analysis of variance (p < p.05) was used to test differences in each of the means (dependent variables) relative to respondents' urban or rural setting (independent variables). The main concepts resulting from the interviews (personal and focus-group) and open-ended items of the on-line survey was analyzed by the principal investigator through the process of meaning condensation; that is, "a reduction of large interview texts into briefer, more succinct formulations" (Kvale, 1996, p. 192). Each statement in the typed interview notes was coded into one of 24 electronic (Microsoft Excel) files according to which socio-ecological factor (by intra-personal, inter-personal, or environmental category) it most represented (see Table 1 for the coding chart). Within each of the socio-ecological factors, recommendation themes (common ideas about barriers) were compiled from each of the coded field note statements. A subsequent verification of these recommendation themes by a qualified research assistant from another faculty in the same university - taking and comparing a randomly selected portion of the audio-taped data, the corresponding coded field note statements, and the recommendation themes - revealed highly consistent (approximately 87%) coding and thematic practices (Miles & Huberman, 1994).

Results

Quantitative Results

Each of the survey items had acceptable levels of normality (e.g., skew, kurtosis, range). Results of the item asking participants to rate (by %) several potential ASSPA outcomes were: Lifelong physical activity (80%), the development of life skills like leadership and decision-making (72%), equal opportunities for all (66%), the whole person (57%), developmentally appropriate (for age and stage) activities (53%), fundamental movement skills (49%), sports skills (45%), and elite athletes (14%).

Means for eight demographic-intrapersonal, four environmental, and two interpersonal barriers reported were over the "agreeable" (> 3.50) designation. Prominent demographicintrapersonal barriers were children or youth choosing to work or use technological gadgets (e.g., using the computer, phone, or television instead of participating in ASSPA), having negative previous experiences, and a lack of motivation, confidence for success, transportation, understanding of participation benefits, and money. The two interpersonal barriers were participating with friends and/or having parent(s) that participate and support their participation. Environmental barriers included the inadequate coordination between organizations, a lack of opportunities in school and/or in the community, and the need to improve provincial policies. Conversely, barriers identified as neutral or not agreeable (<3.50) were: Demographic-Intrapersonal - body appearance, physical ability, weather, safety, and race; Interpersonal activity leaders who are inadequate and/or not enjoyed and ethnic beliefs; and Environmental substandard local policies. Finally, an analysis of variance test revealed that significantly (p < p.05) more transportation [F (1, 307) = 4.25, p = .04, η^2 =. 01] and weather [F (1, 307) = 5.25, p = .02, n^2 =. 02] barriers in rural areas; and, more barriers in urban areas involving safety [F (1, 307)] $= 5.82, p = .02, \eta^2 = .02$, money [F (1, 307) = 3.93, p = .05, $\eta^2 = .01$], race [F (1, 307) = 10.59, p = .001, η^2 =. 03], enjoyment of activity leaders [F (1, 307) = 7.68, p = .006, η^2 =. 02], ethnic/cultural beliefs [F (1, 307) = 24.56, p < .001, $\eta^2 = .07$], and coordination among organizations $[F(1, 307) = 4.05, p = .05, n^2 = .01]$.

Table 1

Descriptive Statistics	for the	ASSPANAS	On-Line	Survey
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Item	Mean	SD
Demographic-Intrapersonal		
Use technology instead	4.30	.80
Lack of motivation	3.78	.88
Low confidence for success	3.72	.83
Poor access to transportation	3.70	1.04
Lack of understanding of benefits	3.66	.99
Work instead	3.57	.92
Negative previous experiences	3.55	.91
Lack of money	3.47	1.05
Sensitive about body appearance	3.42	.86
Physical ability barriers	3.18	1.05

Barriers due to weather	2.65	1.01
Do not feel safe	2.52	.91
Gender barriers	2.47	1.03
Racial barriers	2.29	.98
Inter-Personal		
Friends do not participate	3.83	.76
Parents do not participate or support	3.80	.90
Inadequate activity leaders	3.17	.94
Do not enjoy their activity leader	2.91	.90
Restrictions due to ethnic beliefs	2.56	.92
Environmental		
Inadequate organizational	4.20	.86
Lack of opportunities in school	3.71	1.16
Inadequate provincial policies	3.59	1.09
Lack of opportunities in the	3.56	1.16
Inadequate local policies	3 41	1 14

Note: (1= Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree; Overall cut-off points were: <2.50 for disagree; 2.50 - 3.50 for neutral; and, >3.50 for agree).

Qualitative Results

The thematic recommendations (three demographic-intrapersonal, one interpersonal, and six environmental) resulting from the analyses of the qualitative data (open-ended survey items and personal and focus group interviews) are presented in Table 2. Each of the barriers reported quantitatively was also addressed qualitatively; although the qualitative responses provided additional insights (themes) beyond those provided by the quantitative data. To illustrate, some barriers (e.g., ethnicity, gender, and quality training, programming, resources, promotion, and delivery of ASSPA) did not emerge as prominent quantitatively yet did qualitatively. This reflects the strength of the use of both quantitative and qualitative methods as the latter can often enrich and adding specific insight into, for example, how to improve organizational coordination, school-based opportunities, and affordable programming for potential ASSPA participants; particularly relative to more marginalized individuals (e.g., new immigrants, highly urban or rural, females).

Table 2

Themes from the Personal and Focus Group Interviews

Demographic-Intrapersonal

- Address negative prior experiences and a lack of understanding, confidence and motivation
- Consider regional characteristics such as urban or rural location and corresponding ethnic needs
- Regain participation "lost" to technology, work or other activities

Inter-Personal

• Engage in family-oriented and socially-engaging programs to attract and retain participants Environmental

- Ensure adequate policies, resources, and affordable programming
- Build organizational coordination to support interventions
 - Create and coordinate an information sharing hub
 - Provide joint training, marketing, and fund-raising initiatives
 - Share facilities and resources to reduce redundancy and costs
 - Overcome inter-organizational competition and redundancy
 - Partner education, public health, recreation, and sport
 - o Arrange joint community-school initiatives and facility-use agreements
- Improve the quality, quantity, and inclusivity of ASSPA programs in schools
- Educate and train for quality programming
 - Develop and implement quality training programs and resources like a best activities manual
 - Align resources and training to developmental phases
 - Better meet the needs of the marginalized

Address negative prior experiences and the lack of understanding, confidence, and motivation. Commonly mentioned detractors of motivation were unavailable or inaccessible and hyper-competitive ASSPA programs, participants with negative memories of past experiences in sport and physical activity, few incentives known and valued by non-participants, and the lack of qualified, enthusiastic, and caring leaders. Phil, for example (pseudonyms used throughout), reported that, "We should never have a child enter the gym with trepidation but rather with laughter."

Consider regional and demographic characteristics such as urban or rural location and ethnicity. This theme highlighted the need to adapt programs to the unique contextual challenges associated with region (e.g., socio-economic status, infrastructure, municipal policies and programs, values, transportation, weather, urban or rural) and ethnicity. Consequently, any ASSPA program must be based on a preliminary needs assessment and tailored to a particular setting following careful consideration and allowance for its unique characteristics. While transportation and diversity of program content were the prominent rural barriers, safety was reported as more of a perceived barrier for urban areas. It was generally felt that, within reasonable limits, a paradigm shift was needed away from such a "fear-based culture." For example, Nicki stated that:

The drop-off in adolescent sport and physical activity is linked to less unorganized play especially outdoors. Rural areas still do this more but would do it more with less parental supervision. Parents over-schedule their kids in structured activities and also try to supervise their less-structured activities like those on the playground and pond hockey.

We need to change the cultural paradigm of fear over injury, abduction, and litigation. Interventions targeted specifically to particular ethnic groups must involve an increased awareness of each groups' values, customs, and sport and physical activity preferences and should promote and provide programs that align with those. For example, provide allowances for those wearing certain mandated religious attire and for females who want to play separately from males while promoting the benefits and opportunities of ASSPA to new immigrants who may be less familiar with them. Another recommendation was to provide traditional (aboriginal games and sports) and non-traditional (e.g., hockey) opportunities among the aboriginal population.

Regain participants "lost" to technology, work, or other sedentary activities. Ideas for countering the technological diversion barrier included making ASSPA more enjoyable, inclusive, and accessible to children and youth. Another idea was to better integrate technology in ASSPA ("work with it") by, for example, offering more ASSPA initiatives connections to technology (e.g., exer-gaming activities) and to use technological avenues like the internet, Face Book, Twitter, and the television to socially promote and market programs and opportunities. One respondent (Carl) cautioned that ASSPA providers should "be careful not to overindulge kids with movement options through technology since physical literacy should be the goal wherein movement is best performed with others." In order to entice youth who work after school to attend ASSPA, providers highlighted the need to increase physical activity during the school day through scheduled and free play opportunities during the pre-school time, breaks, classes, lunch, physical education class, and in the early evening. Finally, it may be useful to provide an incentive for students to participate and volunteer in leadership roles if some academic credit was given for these.

Engage in family-oriented and socially-focused programs to attract and retain participants. According to Brent, "We need to make after school sports and physical activity fun, enjoyable, cool, interesting, inclusive, and social so that peers attend; because if friends don't, individuals won't." To do this, providers recommended offering more ASSPA opportunities in schools and in nearby community venues wherein participants can get a sense of belongingness. They also noted the importance of providing problem-solving opportunities (movement tasks that are mentally challenging and require cooperation and decision-making skills) and stimulating social engagements for groups and to foster more peer leaders (role models) in and through programs. A general assertion was that parents ultimately determine the ASSPA program their child will be involved in (if at all) so (Liz) "parents need to be educated and convinced of the safety, benefits (links to academics, mental and physical health...), what they receive for their ASSPA commitments (money, time, transportation...), and what current 'best practices' are."

Since so many parents work after school, providers recommended efforts to ease the transportation barriers by having a clear, consistent, and well promoted and advertized weekly schedule so that parents can conveniently organize their timetables, by arranging most ASSPA programs in or near the school (so parents don't have to drive), and by offering family-oriented ASSPA programs in the evenings or weekends so parents can participate with their children. The emphasis on promoting less-structured (adult led and organized) play was also a prominent recommendation.

Ensure adequate policies, resources, and affordable programming. There was a general belief that more coordinated, sustainable, and efficient policy needs to occur at both the provincial and municipal levels to provide the leverage, funding, and accountability for quality ASSPA programming. A general conjecture was that policy needed to be better designed to actually make a difference at the grassroots (application) level. For example, having the necessary financial resources to handle increasing user fees (from schools and community organizations) and transportation costs emerged as another major perceived barrier to ASSPA (particularly for sport participation). Government funding can help enable programs to lower fees and provide subsidies for those participants (or families) indicating lower annual incomes. Most respondents felt that a drastic increase in tax credits for ASSPA participation was necessary

whereas some believed that those most in need of it fail to take advantage of it anyway. One respondent (Grant) reported:

For example, the Government of Ontario gives \$40,000,000 a year to school boards for Community Use of Schools initiatives and also more money to hire outreach coordinators, yet, there is no overarching after school framework in place wherein all are working.

A common perception was that the program was not promoted well in schools, implementation varied widely among school boards and schools, the funds were either used for other priorities or not used at all, and there is low accountability for effectively and equitably applying the policy.

Improved infrastructure and sustainability and accountability of funding and quality ASSPA programming was also deemed critical for, as Sandra notes, "Grants drive too many programs (e.g., sport councils, recreation initiatives) so they don't have the necessary sustainability." The diversity of infrastructure for ASSPA between municipalities was also a concern as some have excellent parks and outdoor recreational facilities for cycling, cross-country skiing, and outdoor hockey compared to others. It was also noted that ASSPA programs should be better assessed and held more accountable to the stated quality outcomes and needs in order to access public funds (e.g., grant recipients from the Ministry of Health Promotion and Sport). This will also enable funds to be distributed to areas and families that most need it. Further, reducing costs by cutting redundancies in program offerings and competition (general lack of cooperation) between organizations for athletes and venues while increasing collaborative partnerships. Finally, give a more equitable (greater) proportion of ASSPA funds to programs for the masses and (lesser) to sport programs for elite athletes.

Build organizational coordination to support interventions. There was a general concern that the coordination between ASSPA organizations was inadequate. Particular concerns were raised over the need for more and better collaborations towards more shared philosophical, theoretical, organizational (personnel), methodological (communications, meetings), and cooperative (versus competitive) perspectives and practices between and within ASSPA agencies such as national (e.g., National Sport Organizations, Multi-Sport Organizations), provincial (e.g., Provincial Sport Organizations, government agencies), and local community agencies. Local bodies could include non-profit agencies (e.g., YMCA, Boys and Girls Clubs), municipal departments and programs (parks, transportation, recreation, public health, school boards, schools, post-secondary institutions, parents, churches, nursing homes, and police).

A review of and/or establishment of a municipal sport policy would also be useful towards increasing participation and enjoyment in ASSPA. To do so, it would be beneficial to create and coordinate local information sharing hubs (i.e., an agency, person) that are universally recognized and empowered (i.e., funded...) to serve as the accountable and visible link and source of information for establishing inter-agency partnerships. One promising such "hub" development has been the emergence of sport councils in a number of Ontario communities. Quoting one respondent (Jake), these sport council "hubs" could, for example, take the form of a "centralized municipal or regional data base with volunteers, officials, participant registrations (for a low cost like \$3/parent or \$25/sport club per month to access it), facilities, and ways to correspond about cancellations, announcements, online raffles, sales, prizes, and promotions." The hub agency might also gather important assessment data about the participation rates and redundancies in and across programs; extent of use, availability, and booking of facilities; and, the needs of providers (coaches, officials), volunteers, participants, and parents.

Providing joint training, scheduling, marketing, fund-raising, and resource-sharing initiatives could be another useful cooperative organizational practice. For example, groups at a

provincial or national level could collaborate to develop and market a "best practice" resource to be endorsed by other organizations involved in ASSPA. Such resources and information can then be more strategically, collaboratively, and influentially marketed to policy-makers and granting agencies at all implementation levels. Instead of working in "silos," agreements between municipal and private transportation departments, schools, and other ASSPA providers can also help to give participants access to and choices about ways to get to and from ASSPA programs. There was a general consensus that school boards should more consistently and better fund and administrate ASSPA programs and do so jointly with public health and parks, recreation, and sport organizations to fund local ASSPA coordinators while easing user administrative constraints and fees to groups renting their facilities. In one mid-sized city with a funded physical activity person to coordinate ASSPA and also working as a part-time physical education teacher in the schools, it was found that this structure greatly facilitated the partnerships between public health, recreation, and education.

Improve program quality, quantity, and inclusivity especially in schools. As the proprietors of key publically-owned facilities and the sole known legislated place for attendance and physical activity for children and youth, schools were deemed a critical place to engage ASSPA programming. Among the specific school-based recommendations was the need to recruit, train, and certify more volunteers (particularly elderly and post-secondary students) to ease the burden on teachers that can serve during and after school and by offering an in-school and after-school intramural program in addition to the elite-stream athletic program. Such a program should offer many non-traditional activities that minimize competition and social comparisons (anxiety). Encouraging teachers and parents to offer optional and diverse school movement-oriented clubs (e.g., dance, yoga, badminton, exer-gaming, orienteering, running) could also increase participation levels. Overall, there is a need to develop and emphasize principles and programs associated with inclusive, enjoyable, cooperative, sport and physical activity for the development of fundamental movement skills and lifelong holistic health benefits compared to supporting those programs targeting the development of elite athletes.

Educate and train for quality inclusive programming. A general qualitative theme was a recommendation for competent instruction and quality programming in ASSPA. Recommendations included establishing a province-wide instructor's resource, curriculum, certification, and training program. The training should target different levels of ASSPA organizations and delivery including, for example, post-secondary students, teacher-candidates, school coaches, and those in coaching certification programs, provincial sport organizations, local non-profit organizations, sport clubs, and religious groups. The training should be basic, short (5-6 hours), include some official sanctioned certification, and be highly accessible (via a webinar or online professional development seminar). Another idea was to develop and promote a "best activities manual" that incorporates inclusive, engaging, safe, and developmentally appropriate activities, progressions, and instructional methods. Additionally, any training and resources should ensure that practice and content are oriented to the specific and unique characteristics of learners' developmental phases. Some concerns were reported about gender inequity and preferences. For example, Gail said, "There is still a very male- dominated sexist focus in the media and with some movement leaders that reflects sport values. The message being conveyed is that sport is not as much for young girls as boys."

Discussion

To recapitulate, the overarching aim of this study was to advance case-based knowledge about how to enhance the experiences and participation rates in ASSPA among children and youth through a mixed-method study of main barriers reported by ASSPA providers. The results highlighted the importance of inclusive ASSPA programming for health and capital (e.g., active living, life skills, and movement capability) more than for fostering elite athletes; and, emphasized the joint role of demographic-intrapersonal, interpersonal, and environmental factors as potential ASSPA barriers. Providers in this study quantitatively rated less important the factors of money, body appearance, physical ability, weather, safety, leader characteristics, gender, race, ethnicity, and local policies yet qualitatively reported that such barriers existed in certain settings (e.g., urban or rural) that could typically be overcome if more quality, inclusive, and organizationally-coordinated ASSPA programs were more accessible.

Acknowledging the synergistic effect of social, motivational, and emotional factors in ASSPA programs is also vital since optimal sport and physical activity settings avail participants to enriched perceived competence, autonomy, and support, mastery learning, social engagement and acceptance, life skills, enjoyment, and the removal of toxic stress (Brustad et al., 2008). Results of this study support some of the results of research among children and youth (e.g., Brustad et al., 2008; Sallis et al., 2000) about the important role of motivation – in the form of participants' negative prior experiences, lack of confidence, and enjoyment - and of their understanding of the benefits of ASSPA. Developing and promoting quality and inclusive ASSPA programs with better-trained leaders was also emphasized by providers in this study as necessary for enticing youth to ASSPA from other more sedentary choices like screen time, work, and being idle. This finding aligns with that of Barnes, Cousens, and Maclean (2007) who found evidence for an expanded conceptualization of sport among sport stakeholders across Canada to include active living and health movements. Sport programs tend to be biased towards physical skill development, competitive outcomes, profit, and specialization that more reflect professional sport than the promotion of physical activity for holistic health through inclusive and cooperative practices (Brustad et al., 2008). Fostering more diverse recreational sport and physical activity opportunities and training physical activity practitioners to better engage participants according to their unique developmental characteristics, beliefs, and needs might also attract more marginalized individuals (e.g., those less able, obese, ethnic minorities, new immigrants).

Providers in this study emphasized the need to engage participants in family-oriented and socially-focused programs to maximize co-participation with parent and/or friends (especially in youth). Wold and Anderssen (1992) found significant differences in being physically active at least twice per week among 11 to 15 year-olds when best friends, parents, and siblings were involved in physical activity compared to when they were not. Malina et al. (2004) note that participating in family-oriented sporting activities is important in increasing physical activity rates among children and youth. Positive parental influences include being interested, supportive (e.g., equipment, transportation, money, time), giving affirming feedback, and not pressuring the child to meet the parents' expectations. Male adolescents particularly desire such promotion and provisional supports (e.g., transportation, programming tailored to adolescents' needs and interests) in order to engage in physical activity (Allison et al., 2005).

The results of this study also signal the need for ASSPA programs to be contextuallyspecific; that is, developed following a close consideration of unique regional demographic characteristics and infrastructure. For example, in this study, providers from rural areas

perceived higher the barriers of transportation and weather compared to those in urban areas who more emphasized safety, race, not enjoying activity leaders, ethnic beliefs, and the need for organizational coordination. This may be because there tend to be more new immigrants. children and youth, diverse ethnicities, dependence on public transportation, crime, and ASSPA organizations in urban than rural settings with obvious implications on participation. Using data from the 2005 General Social Survey, Clark (2008) revealed that sports participation was lowest among children from more densely populated regions (42%) possibly due to more low-income families there and highest in less densely populated (suburban) regions (52%) such as large and mid-sized cities. Further, children of Canadian-born parents participate more (55%) in organized sports than are more recent immigrants (32%) including in the internationally popular sport of soccer (23% in Canadian-born and 10% in recent immigrants). Several regions in this study had higher proportions of ethnic minorities (e.g., aboriginal groups). A recommendation stemming from the study was that any ASSPA interventions targeted specifically to these ethnic groups should involve an increased awareness of and alignment to particular groups' values, customs, and sport and physical activity preferences. Smith, Findlay, and Crompton (2010) support this recommendation by asserting that, for example, the inclusion of both culturally traditional and novel physical activities in an aboriginal population.

Schools were clearly a priority sector for ASSPA programming in this study since they are institutions that have access to the children and youth and to most of the necessary and publically-owned equipment, facilities, and transportation. Despite these advantages, providers reported how schools are fraught with challenges to implementing quality inclusive ASSPA programs. The results that corroborate a study of secondary school-based physical activity in Ontario by Dwyer and colleagues (2006) revealing that shortages of funding, space, and supervision were the primary barriers to sport and physical activity opportunities in Ontario schools. This study highlights the need to increase accountability and effectiveness in applying the agreements for community use of schools (and vice versa). This finding reflects results of a Parks and Recreation of Ontario (2009) study concluding that improvements were needed in enhanced access to more facilities, at better times, with less cumbersome procedures, and at lower costs. The report concludes, "there is a need to develop a province-wide approach which addresses recurrent concerns such as consistent after-school access, effective risk management, dealing with insurance concerns, and custodial costs" (p. 4).

Providers in this study also highlighted the need for multiple agencies to jointly fund and empower the administration of school-based ASSPA. Such administrative improvements could be more creative scheduling of school classes and transportation schedules to enable more diverse ASSPA programs for all willing participants; and, more effectively recruiting, training, and certifying out-of-school volunteers (e.g., post-secondary students, retirees) so programs are less dependent on teachers. A successful ASSPA program targeting enjoyment for marginalized children and youth in 60 schools in Amsterdam that somewhat reflects these recommendations is the JUMP-in program emphasizing "the use of theory, environmental plans, parental influences, and ... highly structured cooperation created between city districts, schools, youth health care, welfare organizations, school supervisory services, local municipal sport services, and local sports clubs" (Kremers, Schaalma, Meertens, vanMechelen, & Kok, 2006, p. 414). The diversity of ASSPA options is also important since sampling several sports and physical activities (rather than specializing too early in only one) has been linked to better social behaviour (e.g., prosocial, more diverse peer groups), life skills, identity, and social capital (relations with adults...) along with higher rates of physical activity in adulthood (Coté et al., 2007). A study by Flintoff, Foster, and Wystawnoha (2011) provides additional insights into potential school-sport partnerships including the need to target marginalized groups with more educational than performance pedagogy and sustainable school-wide programs.

A final emphasis in this study was the need to improve government policy, increase the sustainability, affordability, and efficiency or ASSPA programs, and reduce the redundancy and rivalry between organizations. In regards to funding, a prominent concern was the over-reliance on temporary grants to fund programs, which might be eased with closer ties between municipal education, health, recreation, clubs, and non-profit community agencies. The \$1 billion 21st Century ASSPA initiative in 2002 in the U.S. reflects the need for more than only government funding. To illustrate, Dzewaltowski (2008) reported that the lack of quality sustainable community infrastructure, promotion, and delivery in a variety of settings resulted in low developmental outcomes like student participation and healthy behaviors. It is clear that municipalities cannot meet the demands of ASSPA without federal and provincial facilitation, policies, and partnerships that have "the profile and the perspective to build a framework and provide capacity-building 'tools' to facilitate the process" (Shelton, Jurbala, Way, & Vulliamy, 2010, p. 37). In their study of national, regional, and local sport and physical activity collaborative obstacles in Canada, Barnes et al. (2007) reported that developing new partnerships or improving existing ones was viewed as an important means for overcoming the shortage of resources; yet, such improved partnerships - particularly when they coincide with an influx of resources – adds other administrative challenges such as how to equitably and efficiently share, use, and maximize the resources.

In this study, collaborations were deemed necessary between local non-profit agencies (e.g., YMCA, Boys and Girls Clubs), provincial and municipal departments (e.g., parks, public health, school boards, police, post-secondary institutions), and others (e.g., transportation authorities, parents, churches, nursing homes). Such collaborations and partnerships are particularly challenging amidst existing independent and competitive "silo" organizational approaches to ASSPA. Cousens, Maclean, Barnes, and Papastavrou (2010) explain the positive potential of regional sport councils with a mandate to "foster the interplay between sport business and community life by establishing strong cultural identity and economic foundation through sport" (p. 8). Among the many services of such councils is their potential to represent partnerships and a visible link and source of information to providers and the public regarding best practices, registration opportunities and forms, and an online database of all registered participants, officials, facilities, and volunteers that could be used for decision-making and program evaluations. A program with some promise was summarized in Vail's (2007) investigation of a community development model to foster and sustain participation in tennis. The recommendations included having "community champions" to serve as a catalyst of operations and a conduit of information, training leaders in the challenging process of partnership building and networking, implementing a "bottom-up" (community-based) decisionmaking system that differs from most current "top-down" (authoritative) systems in club sports, and developing a social support system to aid in the recruitment and retention of tennis participants.

In conclusion, this study illuminates barriers to and associated recommendations for increasing participation in quality ASSPA programs among children and youth. The levels and patterns in reported ASSPA barriers in this study would likely differ in other contexts so future studies in other settings and involving both providers and participants are welcomed. Future research should also more clearly differentiate benefits associated with sport and recreation from those of high performance sport, as there is some evidence that these are not synonymous (Bloom, Gagnon, & Hughes, 2006). More information is also needed at a more micro program

content and delivery than this study. This would be useful because some ASSPA studies have reported greater MVPA in free-play than more structured sessions (Coleman et al., 2008) and when focusing primarily on physical activity than simultaneously with other aims like healthy eating in females (CAAWS, 2012). Despite several inherent limitations such as the blending of sport and physical activity, the lack of complete data transcription, and the limited transferability to settings highly variant to those represented in this study, the results signal that communities of a similar nature to those represented in this study need to creatively and intentionally strategize, create policies, structure timetables and facilities, promote programs, educate volunteers, and refine and assess programs to include more inclusive ASSPA opportunities for children and youth.

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