Factors That Influence Physical Activity Participation Among High- and Low-SES Youth

M. Louise Humbert
Karen E. Chad
Kevin S. Spink
Nazeem Muhajarine
Kristal D. Anderson
Mark W. Bruner
Tammy M. Girolami
Patrick Odnokon
Catherine R. Gryba

Researchers have rarely addressed the relationship between socioeconomic status (SES) and physical activity from the perspective of youth. To illuminate the factors that youth from low- and high-SES areas consider important to increase physical activity participation among their peers, 160 youth (12-18 years) participated in small focus group interviews. Guiding questions centered on the general theme, "If you were the one in charge of increasing the physical activity levels of kids your age, what would you do?" Findings show that environmental factors (i.e., proximity, cost, facilities, and safety) are very important for youth living in low-SES areas to ensure participation in physical activity. Results also show that intrapersonal (i.e., perceived skill, competence, time) and social factors (i.e., friends, adult support) must be considered to help improve participation rates among both high- and low-SES youth.

Keywords: *youth; physical activity; socioeconomic status; focus group interviews; ecological model*

It is generally accepted that physical activity has numerous benefits that improve health status and quality of life in adolescents (MacKelvie, Khan, & McKay, 2002; Sothern, Loftin, Suskind, Udall, & Blecker, 1999). Despite this finding, research has shown that the majority of youth are not getting enough physical activity to achieve health benefits (Canadian Fitness and Lifestyle Research Institute, 2005). Given that early physical activity experiences might be a key factor in predicting adult physical

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activity (Thompson, Humbert, & Mirwald, 2003), the promotion of physical activity in young people should be a high priority. However, to begin to change physical activity behavior successfully, we must clearly understand the factors that influence youth to adopt a physically active lifestyle.

Physical activity in youth is a complex, highly variable behavior determined by a number of factors (Sallis, Prochaska, & Taylor, 2000; Woodfield, Duncan, Al-Nakeeb, Nevill, & Jenkins, 2002). Past quantitative research has identified a number of physical activity correlates among youth (Bauman, Sallis, Dzewaltowski, & Owen, 2002; Higgins, Gaul, Gibbons, & Van Gyn, 2003; Sallis, Prochaska, et al., 2000). Many studies have identified these correlates using an ecological model of physical activity behavior (Spence & Lee, 2003). This model hypothesizes that physical activity is influenced by three domains: (a) intrapersonal (biological, psychological, and behavioral influences), (b) social (family or peer support, modeling), and (c) environmental (facilities, communities, accessibility, etc.) (Sallis & Owen, 1999). Therefore, an ecological model suggests that to understand fully the factors that affect physical activity participation among youth, one must address the characteristics of physical activity at multiple levels and consider the integration and interaction of the factors within each of the three domains.

An important factor within the intrapersonal domain of the ecological model is socioeconomic status (SES). Studies report that youth who are considered to be lower SES participate in less physical activity than their more advantaged counterparts (Crespo, Ainsworth, Keteyian, Heath, & Smit, 1999; Lowry, Kann, Collins, & Kolbe, 1996; Woodfield et al., 2002). Despite the association between SES and the level of physical activity undertaken by young people, there is little information on what factors influence the decision of high- and low-SES youth to be physically active. It is possible that lower SES youth experience greater barriers to becoming or being physically active. For example, less disposable income would influence physical activity participation, as those who are less well off financially could not afford to participate, resulting in lower average daily physical activity than those youth in high-SES groups. Therefore, it might be that youth from low-SES groups are just as interested in being physically active but their circumstances are such that they cannot participate.

Past studies have focused primarily on quantitatively identifying the various correlates or predictors of physical activity. In general, youth have seldom been given opportunities to comment on both problems and solutions related to their health and well being (Ontario Health and Physical Education Association, 2002). Furthermore, the relationship between SES and physical activity among adolescents from the perspective of the youth themselves has rarely been addressed. To attend to these issues, this study used qualitative methods to explore the intrapersonal, social, and environmental factors that youth living in high- and low-SES areas perceived to be important to increase physical activity participation among their peers. Thus, using an ecological model as a framework to organize their responses, we gave the students the opportunity to share their thoughts and express their voices.

METHOD

Participants

Representatives from two local school divisions in a midsized Canadian city worked with the researchers to identify elementary schools and high schools from two diverse socioeconomic areas of the city. The two high schools that represented the lower socioeconomic areas were selected based on demographic and social characteristics of the neighborhoods in which the schools were located. These characteristics included community demographics (income levels, unemployment rates), justice information (general crime statistics, young offenders in school, etc.), health information (mental health information, alcohol and drug abuse, etc.), and school data (transience, single parents, absenteeism, etc.). We selected the two high schools that represented the higher socioeconomic areas by using data obtained from neighborhood profiles (e.g., educational attainment, family income, and neighborhood characteristics). Once the four high schools had been selected, two elementary (Grades 1-8) schools located in close proximity to each of the high schools and fulfilling the same low- or high-SES neighborhood criteria were included in the study. One hundred sixty youth (80 female and 80 male) aged 12 to 18 from intact classes in the selected schools consented to participate in this study. Participants were identified by SES based on whether the school they attended was designated "high" or "low" according to the characteristics described above.

Procedures

The participants for this study were chosen using purposive sampling, a procedure that involves selecting participants with knowledge of issues of central importance to the research question (Lincoln & Guba, 1985; Patton, 2002). The focus group participants were selected from a larger group of students (n = 1,048, 76% participation rate) who consented to participate in a larger study, the ***in motion*** physical activity study. Researchers, school-based administrators, and teachers developed criteria for participant selection. Specifically, the classroom teachers selected youth who would represent diverse levels of physical activity, respect the thoughts and ideas of others, and feel comfortable talking in group situations. Each teacher approached potential participants individually to determine if they were interested in participating in a focus group discussion. Although the participants were aware that the study was comparing the thoughts and ideas of active and inactive students living in two diverse demographic areas of the city, they did not know that they were interviewed according to SES and therefore did not self-identify according to their identified SES group. Because the nature of the study was to try to understand the factors that influence the activity patterns of youth, every effort was made to involve students with a wide range of activity levels. Often, students with low activity levels are not interested in talking about physical activity; thus, all of the teachers were encouraged to ask such students to participate and to inform them that that their thoughts were highly valued and greatly needed. The interviewers worked diligently to create an atmosphere in each interview that respected a wide range of thoughts and opinions.

The selected participants were offered opportunities to discuss their physical activity experiences in small (i.e., 5 to 7 participants) focus group interviews, a size recommended by Morse and Richards (2002). The participants were selected from both coed and single-sex classes and thus were interviewed in those same groupings to accommodate the schools' request of convenience. No incentives were offered for participating in the focus groups.

With the assistance of teachers, consultants, and youth workers, we developed an interview guide, which we piloted and revised after several interviews with students from diverse socioeconomic areas who represented the ages and grades included in the study. Three research assistants with extensive experience working with adolescent youth participated in two training sessions and several pilot interviews to familiarize themselves with the study and the interview guide. Twenty-nine focus group interviews were conducted; each interview was approximately an hour in length. The three interviewers conducted between 14 and 18 interviews each. Two of the interviewers had extensive experience working with students from lower socioeconomic backgrounds and therefore conducted all of the interviews with the low-SES students. All interviews occurred during the school day.

The focus group interviews were centered on one open-ended question: "If you could be the one in charge of increasing the physical activity levels of kids your age, what would you do?" We used a number of questions designed around the three components of the ecological model to prompt the open-ended question. Examples of such questions included "Would you need to be skilled to participate in this activity or program?" (intrapersonal); "Would you do this activity alone or with friends?" (social); and "Where would this activity be done?" (environmental). General questions such as "Can you think of anything that would stop a kid from coming to an activity such as this (i.e., the activity that the youth have designed)?", "Has there been a time when physical activity was important in your life?", and "Was there ever a time when you stopped doing a physical activity?" were also included in the focus group interviews. At the conclusion of each interview, the interviewer summarized the major points and asked the participants if their thoughts had been captured correctly.

Following guidelines outlined by Merriam (1998) and Patton (2002), we audiotaped all focus group interviews and transcribed them verbatim. Consent was obtained from each participant, and ethical approval for this research project was obtained from the Behavioral Ethical Review Committee of the University of Saskatchewan. Written informed consent was obtained from the parent, and written informed assent was obtained from the students.

To determine the characteristics of our sample, we assessed physical activity using the Modified Activity Questionnaire for Adolescents (MAQ-A) (Aaron et al., 1995). The MAQ-A is a self-reported measure of physical activity designed for use with youth and adolescents. The instrument also has been shown to be a reliable ($r = .79$ for 1-month test-retest) and valid measure (Spearman correlations between the questionnaire and the average of 7-day recalls ranging from .55 to .83) of self-reported physical activity in this population (Aaron et al., 1995). Level of energy expenditure resulting from time spent in physical activity was calculated in kcal per kg per day (KKD).

Data Analysis

As we sought to build understanding from the data collected, data analysis was an ongoing process that began with the first interview and continued throughout the study (Morse & Richards, 2002). Each interviewer kept a reflexive journal (Guba & Lincoln, 1981) in which he or she recorded thoughts about each interview, paying special attention to ideas and issues discussed, similarities and differences among the interviews, and possible questions for future interviews. During data collection, the interviewers met several times to discuss their findings and identify emerging ideas and topics.

The next step of data analysis occurred when all of the interviews had been conducted. Using the procedures consistent with content analysis (Patton, 2002), the interviewers and two additional members of the research team reviewed the transcripts of the interviews. Each transcript was read several times and coded line by line. Words or sentences that captured the critical issues and thoughts identified by the participants were highlighted. These highlighted passages helped identify preliminary patterns in the data. These patterns were then identified as categories of information. These categories of information were transferred to several poster boards to allow for a visual presentation of this stage of data analysis (Bogdan & Bilklen, 1992). This process helped us identify the connections among the categories. These connections were used to group the categories together, a process identified by Merriam (1998) as clustering. The clusters of categories facilitated the identification of themes within the data. These themes were then grouped according to the three components of the ecological model.

Analyst triangulation was used in both data collection and data analysis (Patton, 2002). The use of multiple interviewers helped to make certain that the findings emerging from the interviews were not a result of personal bias or leading questions. In addition, the review of the transcripts by additional research team members ensured that the findings were grounded in the data. An external consultant with extensive experience working with youth in physical activity settings assessed the quality of the analysis by reviewing all of the data sources and decisions made concerning the identification of patterns and themes in the data.

FINDINGS

Findings from the 29 focus group interviews showed that 14 of these groups were made up of high-SES youth and 15 of these groups consisted of low-SES youth. There were 36 male and 39 female participants in the low-SES groups, and 44 male and 41 female participants in the high-SES groups. Each of the three grade ranges, 7/8, 9/10, and 11/12, was represented equitably in both the high- and low-SES groups. Physical activity data from the 160 participants were available for analysis. Results from a one-way ANOVA showed that low-SES youth (mean = 6.2 KKD) were less physically active than high-SES youth (mean = 8.3 KKD). These findings are consistent with previous research (Woodfield et al., 2002).

We used the ecological model as a framework to analyze the results obtained in all of the focus group discussions (see Table 1). The responses of the participants were initially analyzed by grade and SES level. For the purpose of this study, the responses from elementary and high school students were collapsed, and the fac-

TABLE 1: Summary of Findings

Factor	*High Socioeconomic Status*	*Low Socioeconomic Status*
Intrapersonal	Time barriers: work, homework, other scheduled activities (e.g., piano)	Time barriers: family obligations, homework
	Fun: perceived competence, perceived skill	Fun: perceived competence, perceived skill
Social	Friends	Friends
	Parental involvement	Adult involvement
Environmental	Type of activity: seasonal programming, diverse choices	Proximity
		Cost
		Facilities
		Safety

tors that emerged within each domain of the model, and specifically between the two socioeconomic groups (i.e., high and low), are presented below.

Intrapersonal

Several intrapersonal factors were perceived as important by the youth in this study. Fun was a popular intrapersonal factor and was closely related to perceived competence and skill. Similarly, time barriers such as work and homework were important factors. One additional time barrier noted by only the youth living in lower SES areas was time spent on family obligations.

Fun

The importance of physical activity's being fun was a factor continually emphasized by high- and low-SES focus group participants. If an activity was deemed to be fun, the youth were eager to participate. When the youth were asked to explain what fun meant to them, it became apparent that fun was associated with perceived competence.

Perceived Competence

Participants from both high- and low-SES areas frequently mentioned perceived competence. Feelings of confidence and skill were essential for the students to have fun and greatly influenced their participation in physical activity. For example, if the youth felt skilled, they were much more likely to perceive physical activity as fun and participate in the activity: "It's fun—it's something I'm good at!" On the other hand, if the youth did not perceive themselves as competent or skilled in the activity, then the activity was not considered to be fun. Many conversations focused on the detrimental effects that getting cut, being made fun of, being picked last, and not being included had on attitudes towards physical activity. Moreover, feelings of incompetence (and lack of fun) had a negative influence on desire to be physically active. Youth from high- and low-SES areas agreed that feeling incompetent and unskilled in the activity would prevent them from participating in the activity. The

youth also felt that if their peers viewed them as beginners, then their skill level would be justified. This was illustrated by one student, who said,

> I don't know if I would go and do the activity if I knew there were good people there and someone might make fun of me. I might go if they had a place just for beginners, because then it would be okay to just be learning.

Similarly, when the students were asked what might prevent them from participating in a physical activity program, high- and low-SES participants emphasized the importance of feeling competent and skilled:

> Kids are worried what other people are gonna think, so they need encouragement to do something. They want to get physically active, but they think, "What if I go for a run and people laugh at me?" (pause) . . . kids just need to be encouraged.

Although perceived competence could affect students' physical activity participation in either a negative (e.g., feel less skilled so don't want to participate) or positive way (e.g., feel skilled so want to participate), this factor most often negatively affected the students' perception of fun, with the possibility of reducing their participation in physical activity.

In addition to feeling skilled at an activity, the participants also explained that having fun was dependent on the balance between their individual skill level and the challenges presented in the activity. For example, fun was defined as having the opportunity to engage in a more organized team-type activity (i.e., the type of activity that one must sign up for) by those students who perceived themselves as being skilled; however, fun meant having the option to participate in a nonorganized activity (i.e., the type of activity that you do not have to sign up for and can do on your own anytime) among the less skilled individuals. A similar explanation was given by the students with regard to the physical activity setting. For example, an activity setting perceived to be nonsupportive or threatening by the youth resulted in feelings of intimidation and thus was described as not being fun.

Time

The second intrapersonal factor that emerged from both high- and low-SES participants' data was having the time to participate in physical activity. Lack of time was often perceived to be a barrier to physical activity. A student explained, "If it was convenient to do physical activity, I would; but it's a lot of work to try and schedule it in." A number of reasons were discussed for a lack of time, but it was apparent that homework was the major factor that took away time that might have been devoted to physical activity. Another student commented, "The problem with kids is that they have tons of homework or have tests to study for, so they don't have time to be physically active."

A second reason for the lack of time that was discussed by high- and low-SES participants was having an after-school job. Several students suggested that work-related responsibilities consumed the students' leisure time and reduced their opportunities to participate in physical activity.

In addition to the time constraints imposed by homework and jobs reported by high- and low-SES students, there were other commitments that influenced their

opportunities to be physically active that were SES specific. For example, among high-SES participants, it was evident that an array of scheduled time commitments, including numerous academic and extracurricular activities, was a barrier to physical activity. One high-SES student mentioned, "I'm constantly on the go . . . I don't have time to fit it all in," whereas another said, "I would have been on the team this year but I just didn't have time . . . I was busy with Jr. Achievement, school work, and other stuff." In contrast, the level of time devoted to scheduled extracurricular activities by the high-SES students was not evident among the low-SES students. When participants in the low-SES groups reported time as a barrier, their discussions surrounded family obligations. Time spent on family responsibilities was considered a barrier to their opportunity to be physically active. One low-SES female student commented, "I have to do house work, make supper, and watch my little cousin all the time . . . so most of the time, I don't get much time [for physical activity]."

Social

The two social factors most frequently discussed were friends and adults. Closely intertwined with friends was the intrapersonal factor of fun. Friends and fun were mentioned by both SES groups of students. Adult involvement was discussed by all students but more often by youth from the low-SES areas.

Friends

An important social factor that emerged among high- and low-SES participants in the present study was friends. The integral role that friends played in physical activity was consistently linked to the intrapersonal factor of fun. For example, students from high- and low-SES areas commented that physical activity was fun if it meant being with friends or meeting new friends. One student commented, "For me it is all about playing with my friends and having fun; that's the whole point." It was obvious from the focus group interviews that friends played a big role in what the students did in terms of physical activity. The influence of peers was most often positive, as evident in the following quote: "I don't do stuff by myself, but if my friends went I would try it . . . and if they liked it, then I would probably keep going."

Adults

Another important social factor often mentioned by all participants was adult involvement. Students from high- and low-SES areas emphasized the important role that adults played in the provision of physical activity opportunities. They indicated that this adult could be a parent, guardian, college student, teacher, or coach, provided that he or she was able to organize an activity and act as a responsible role model. One student suggested, "We need an older person who helps get things organized . . . someone who's experienced and healthy themselves so they know how to teach you things." The students also wanted the adult to be someone who was willing to participate in the activities and be involved in the community.

Discussion around adult involvement among high- and low-SES students often focused on teachers and coaches. In the present study, it was clear from all partici-

pants that the teacher or coach needed to be knowledgeable and fair, "The coach made it fun because he knew what he was doing and was fair." High- and low-SES students also recognized that if the teacher or coach did not possess these qualities, then they were less likely to choose to participate in the activity.

Although high- and low-SES students reported a desire for adult involvement, the role they wanted this adult to play differed between the two groups of students. When the high-SES students discussed adults, they talked about the ways in which their parents could facilitate and support their involvement in sports. For example, high-SES students discussed the need for a parent to play a role in organizational tasks such as first aid or driving them to the game. In contrast, it was evident that among the low-SES students, any kind of adult involvement (especially for participation and supervision) was welcomed. As one low-SES student stated,

> It's important to have someone to play with you and be part of it. It just makes it better . . . I went to a place where there were three college students and they made it fun to go there. It was awesome!

Thus, although similarities in the social factors among high- and low-SES students emerged, it was evident that the low-SES students wanted more adult involvement to organize and supervise the activity. Low-SES students also were extremely enthusiastic about the possibility of having an adult to participate in the activity. The high-SES students acknowledged parental support as being an important factor for participating in physical activity; however, in comparison to the low-SES students, they seemed to take the involvement of their parents for granted.

Environmental

The most common environmental factors that emerged in this study were related to proximity, cost, facilities, and safety. Although proximity, cost, and facilities were mentioned by both groups of SES students, the low-SES students mentioned these three factors much more frequently. In addition, the low-SES students reported that safety was also an important issue, whereas this factor was not mentioned among the high-SES students.

Proximity

An accessible facility (i.e., in close proximity) was a factor discussed by all students. However, although high-SES students mentioned their preference for physical activity programs to be within the community, having an accessible facility in close proximity did not appear to be a critical factor for their involvement. In contrast, students from the low-SES schools emphasized that the program must be close to where they live, or they would not be able to attend. One low-SES student simply stated, "Taking a bus or getting a ride with my friends wouldn't be a problem [if it was in the community], but if it was all the way across town, then that would be more of a big deal." Another low-SES student complained, "Don't put it right in the middle of down-town or on the outskirts; put it in our community, in our area, so we can actually get to it and use it." Similarly, another low-SES student commented, "There aren't many options within our community. There's some martial arts, but

that's it." Another low-SES student commented, "There's no place like that around here, we have to go to the other side of town."

Cost

An environmental factor related to proximity was the cost of the activity. The importance of proximity and cost was discussed by all youth in the low-SES focus groups. Unlike the high-SES students, the low-SES students reported that if the cost was too high, then they would not be able to participate in an activity. A low-SES student mentioned the importance of affordable activity options and emphasized the need for the activity to be close to his home (i.e., proximity): "My mom can't afford for me to do too much, but if it was right here and I could just walk, that would be awesome." Low-SES students frequently reported the need for physical activity opportunities to take place right in their community within walking or biking distance, because they did not, or could not always count on parents to drive them. The high-SES students, on the other hand, did not report that cost was a critical factor for their involvement. Although they began to consider cost at an older age (i.e., working age, 16+ yrs.), it was apparent that cost was not a deciding factor when considering whether to participate in an activity. This cost issue was unlike that of the students from a low-SES area.

Facilities

Similar to their desire to have an accessible (i.e., proximal) facility, the low-SES students also mentioned the importance of the appearance of the facilities for physical activity. For example, the low-SES students talked about the importance of having a nice-looking, inviting facility with good equipment, and nice parks and outdoor facilities, with no vandalism. One low-SES student commented, "Better basketball courts are needed around the community . . . they are all chain link fence, with no nets, and broken cement." Another low-SES student suggested,

> Our community should have a huge place, that costs a buck to get in to play . . . it should have different outdoor courts and big open fields, with fences all around . . . the other side of town has that, but we have nothing like that here.

It was suggested that many youth in the low-SES areas do a lot of activity outdoors, such as basketball or skateboarding, with really no quality facility to do these activities. One low-SES student recommended, "Have a rec centre in this area or a basketball court, because there's nowhere to play basketball around here." Similarly, another low-SES student said, "All my friends skate and we really have no good place to go." Furthermore, it was evident that the low-SES students believed they would be more active if they had help from others to maintain their facilities. The need for care and maintenance of facilities and equipment is evident in the following conversation:

> We have rinks around here but they're never flooded in winter.
>
> There's nothing you can really do in the rinks in the winter. They are full of cracks and all bumpy.

> People rip the boards off and vandalize them.
>
> I think our janitor might have flooded the rink once.
>
> There was a student's mom, who used to do it, but they don't go to this school anymore and so there is nobody really to do it.
>
> Yeah, they [parents/school] just never got around to it—and if they did fix it—it would be wrecked the next day anyway.

The low-SES focus groups also frequently talked about the programs and facilities that used to be in existence and were no longer occurring due to issues around vandalism.

> If we had a nice weight room, people would steal the weights, and the room would get trashed. People wouldn't respect it.
>
> [When] something gets vandalized or broken, you don't just leave it, or take it away, or shut down the program, you try and fix it.

In contrast, the high-SES students did not mention the need for an available, well-maintained facility with good equipment. Similar to the discussions regarding the involvement of a parent or adult, it was apparent that being able to be active in a high-quality facility was assumed. For example, the high-SES students discussed the particular activities they would offer rather than the importance of having a nice facility with good equipment. Conversations related to seasonal programming were apparent with the high-SES students as well, as they discussed the need for activities to be available in the winter, because in the summer many are away on holidays, at the lake, or in summer camps. This type of conversation was not evident in the low-SES focus groups.

Safety

Another environmental factor closely related to proximity that emerged in only the low-SES focus group discussions was safety. It was suggested that the lack of a safe environment might cause youth to refrain from participating in physical activity programs. One low-SES student stated, "I know lots of people who didn't come [to the activity being discussed] because they were scared." Fighting and intimidation were mentioned in nearly every low-SES focus group, as one low-SES student explained, "There's stuff you can't do by yourself, because if you're alone, you might get jumped or something. You need to be sure that the place is safe, and that there are good lights all around."

In many cases, safety was linked to adult involvement, because the need for adult supervision involved a "bouncer-type" idea. The importance of accessing the program was emphasized by one student, who mentioned, "People don't come [to the program] because it's too dark for some of the little kids to walk through the passway at night, and their parents don't want to come." In contrast, in the higher SES group, safety was not reported as an issue that affected their participation in physical activity.

DISCUSSION

Approximately one sixth of Canadian children and youth live in low-income situations (Statistics Canada, 2003). Measures of SES such as income, education, and occupation are strongly associated (i.e., negatively associated) with mortality and morbidity from cardiovascular disease, cancer, and other chronic diseases (Canadian Institute for Health Information, 2004). This greater risk due to lower SES might be, in part, a result of unhealthy lifestyle behaviors such as physical inactivity. Among adolescents, unhealthy lifestyle behaviors are common and might be associated with socioeconomic status. For example, physical activity has been found to be more prevalent among higher SES groups (Crespo et al., 1999; Woodfield et al., 2002), and as SES increases, adolescents are less likely to lead a sedentary lifestyle (Kristjansdottir & Vilhjalmsson, 2001; Lowry et al., 1996). These findings are a concern, given that socioeconomic differences in health risk behaviors in adolescence have the potential to predict socioeconomic health differences in adulthood (Tuinstra, Groothoff, & van den Heuvel, 1998). Therefore, the aim of the present study was to understand the factors that high- and low-SES youth consider important to increase physical activity among their peers.

The findings from this study showed a notable distinction between high- and low-SES students in their discussions related to environmental factors of physical activity. Among low-SES youth, programs and facilities that were easily accessible (i.e., in close proximity) and low cost were key factors for their participation in physical activity. In addition, the need for high-quality equipment and well-maintained facilities was repeatedly discussed by low-SES youth. The importance of offering physical activity opportunities in a safe, (e.g., well lit, free of fighting and vandalism) environment was also viewed as a critical factor for physical activity participation among low-SES youth. Although these four factors (i.e., proximity, cost, facilities, and safety) were mentioned by the high-SES youth, none was emphasized to the same degree. Only the low-SES youth considered the environment to be an important contributing factor for physical activity participation. For these youth, safe, accessible, affordable, quality facilities were fundamental for their participation in physical activity.

To our knowledge, the difference between high- and low-SES youth regarding the importance of several environmental factors has not been reported in previous qualitative research. However, our findings are supported by previous quantitative studies that indicate physical activity among young people is positively correlated with having access to convenient play spaces (Zakarian, Hovell, Hofstetter, Sallis, & Keating, 1994), sports equipment (Stucky-Ropp & DiLorenzo, 1993), and transportation to sports or fitness programs (Sallis, Prochaska, et al., 2000). It has also been reported that youth living in low-SES circumstances often do not have the same physical activity and recreation opportunities, including fewer convenient facilities for physical activity, compared to children from higher income families (Sallis, Zakarian, Hovell, & Hofstetter, 1996). Given these findings, it is not surprising that youth living in low-SES areas in this study consider the proper environment (i.e., access to safe, convenient, inexpensive physical activity facilities) to be essential for their participation in physical activity. This was confirmed in the results that found a significant difference in physical activity level between the two socioeconomic groups, with the low-SES group exhibiting lower physical activity levels compared to the high-SES group.

Findings also showed similarities among the high- and low-SES youth involved in this study. These similarities emerged when the youth discussed intrapersonal and social factors of physical activity. Fun, for example, was an intrapersonal factor considered to be important by all youth, regardless of socioeconomic status. Fun was linked to perceived competence and participation in physical activity; it was clear that when the youth felt their skill level was inadequate, they were less likely to pursue physical activity, because it would not be fun. Fun was also dependent on the balance between the students' individual skill level and the challenges presented in the activity. Therefore, any activity that took place in a setting where youth felt they did not have the skills to participate resulted in feelings of intimidation and made the youth less likely to engage in the activity. Consequently, for all youth, fun was dependent on perceived competence and was a very important factor for their participation in physical activity.

The above findings regarding fun and perceived competence are supported by numerous studies. Fun is one of the most common reasons children offer for engaging in physical activity (Martens, 1996), and perceived competence has been identified as a factor associated with physical activity among youth of all ages (Sallis, Prochaska, et al., 2000; Trost et al., 1996). The link between fun and perceived competence was explored in the work of Mandigo and Thompson (1998), who determined that physical activity instructors need to create a developmentally appropriate environment for all children by "modifying the challenges of the activity to suit the skills of the child" (p. 154). These same authors believed that if children felt competent in a physical activity setting, they would have fun and, therefore, would choose to participate in physical activity more frequently.

Like perceived competence, time was an intrapersonal factor reported to be important by all youth in the current study. In addition to homework and jobs, all participants suggested that other time commitments also influenced their opportunities to be physically active. For example, for high-SES youth, many scheduled commitments (e.g., music lessons) were a barrier to physical activity, whereas among low-SES youth, time commitments for family responsibilities (e.g., babysitting their younger sibling) were a barrier. To our knowledge, these differences between high- and low-SES youth regarding the type of time commitments have not been reported in the existing literature and thus provide important information that might be relevant for designing programs to get low-SES youth active.

Social support is considered a well-established factor of physical activity in the literature (Sallis & Owen, 1999; Sallis, Prochaska, et al., 2000). Research suggests that peers are particularly influential on adolescent physical activity behaviors, as they contribute to enjoyment of physical activity through recognition of accomplishments, companionship, and esteem support (Kremarik, 2000; Smith, 1999). In the present study, the influence of friends on physical activity participation was strong for all youth, regardless of socioeconomic status. For example, if a student's friends were physically active or involved in sports, the student was influenced to become active too. These results are not unlike previous studies that have reported that friends can influence adolescent and adult physical activity (Thompson et al., 2003).

Studies suggest that, like peers, parents also play a key role in supporting youths' physical activity experiences (Anderssen & Wold, 1992; Kremarik, 2000) and are consistently related to youth physical activity (Sallis, Prochaska, et al., 2000). Parental involvement in physical activity is diverse, ranging from encourage-

ment, paying for fees and equipment, attending practices and games, helping the child develop skills, and providing transportation (Weiss & Hayashi, 1995). In the present study, all participants considered parents to be important for their participation in physical activity. Similarly, all youth suggested that a teacher or coach who was knowledgeable and fair was also important for their participation in physical activity. It has been suggested by Sallis, Prochaska, et al. (2000) that teachers and coaches can have a strong influence on youth and have the potential to direct kids into a lifetime of involvement with sports and/or physical activities or they can be the catalysts that turn them away. This finding emphasizes the need for teachers and coaches to be aware of the effect they might have on promoting lifelong physical activity among youth.

A difference between the high- and low-SES participants was in the type of adult involvement preferred in physical activities. For example, the high-SES students mentioned the importance of adult, specifically parental, involvement in their physical activity pursuits in the context of providing transport to the program or first aid treatment. The low-SES students, however, repeatedly expressed their desire for the presence of a supportive, trustworthy adult to participate, facilitate, and supervise the activity. Despite this desire to have an adult involved in their physical activity, past research has shown that low-SES youth might be less likely to receive such involvement and encouragement than are their high-SES counterparts (Vilhjalmsson & Thorlindsson, 1998). Low-SES youth also commented that in addition to providing support and encouragement, adult involvement was desired to ensure a safe and inclusive environment. For example, the low-SES youth recognized that a major problem existed for their diminished physical activity participation because of vandalism and safety issues and suggested that adults were necessary for minimizing these problems. These findings suggesting that physical activities among low-SES youth should involve adults in both a supportive and supervisory role add a new aspect to the existing literature.

CONCLUSIONS AND RECOMMENDATIONS

Identifying the factors related to youth physical activity is important, as such information can provide insight to efforts aimed at increasing the number of young people who meet health-related physical activity guidelines. The results of this study suggest that researchers, as well as health care professionals and educators, consider the factors that influence physical activity level. Regardless of the SES of youth, intrapersonal (i.e., fun, perceived competence, and time) and social factors (i.e., friends and adult support) that influence physical activity should be considered. To engage youth in physical activity, it is essential that the opportunities presented should be perceived as fun and that all youth should be given the opportunity to participate in developmentally appropriate programs to help them become skilled and competent in a variety of fundamental movement patterns. It is also evident that physical activity opportunities need to be provided for youth of all ability levels to help make them feel confident and to ensure their participation. Earlier work has shown that when people experience feelings of intimidation in a physical activity setting, they are more likely to drop out or see a decline in their physical activity level (Thompson et al., 2003). Young people should be given the choice to participate in activities that have varying levels of skill level whenever possible so

that they are comfortable with the physical activity setting. If school and community programs emphasize enjoyable participation in physical activity and help students develop the knowledge, attitudes, motor skills, behavioral skills, and confidence, they will be more likely to feel competent and adopt and maintain a healthy lifestyle that includes regular physical activity (Centers for Disease Control and Prevention, 1997). Individuals and organizations interested in promoting physical activity among youth should also be encouraged to offer activities that provide opportunities for participants to be physically active with their friends. The present findings are in agreement with previous work suggesting that to promote physical activity participation among youth, fun, physical skill development, and friends are factors that must be addressed.

Special considerations should be made for physical activity programs specific to socioeconomic status. For low-SES youth, there should be a particular emphasis on environmental factors. Activities planned for such youth should ideally occur in a safe, inclusive, well-maintained environment with an adult to provide support and supervision. These activities should also be inexpensive and convenient. It has been suggested that school physical education programs are the most promising for having a positive impact, as they might be the only environment providing the opportunity for most youth, including low-SES youth, to be physically active (Sallis, McKenzie, et al., 1997). Physical education classes are also inexpensive and accessible. Furthermore, if teachers and coaches are supportive and teach all youth the skills necessary to feel competent to pursue activities, these young people might be more likely to continue being active. In addition to having access to a quality physical education program, steps should also be taken to provide an environment that supports physical activity outside of the school setting. This means that policy developers and community groups should consider the above recommendations regarding the environment. This could include making an effort to improve the accessibility of physical activity programs (i.e., proximity and cost) as well as the number and quality of recreational facilities in lower SES areas. Because of the integral role that adults play in youth physical activity, programs and initiatives that encourage them to be involved with youth should be developed. Addressing these recommendations might help more low-SES youth pursue physically active lifestyles.

In conclusion, this study provides a unique contribution to the literature by identifying specific environmental factors that affect physical activity participation of youth of varying SES. It is essential that such factors be considered when designing physical activity interventions and that policy makers, schoolteachers, health promotion personnel, and physical activity programmers understand that different environmental factors exist, depending on SES, and such factors do affect physical activity participation, as the findings of this study have shown.

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M. Louise Humbert, PhD, is an associate professor of kinesiology at the University of Saskatchewan, Saskatoon, Canada.

Karen E. Chad, PhD, is a professor of kinesiology at the University of Saskatchewan, Saskatoon, Canada.

Kevin S. Spink, PhD, is a professor of kinesiology at the University of Saskatchewan, Saskatoon, Canada.

Nazeem Muhajarine, PhD, is an associate professor of community health and epidemiology at the University of Saskatchewan, Saskatoon, Canada.

Kristal D. Anderson, MSc, is a doctoral candidate in kinesiology at the University of Saskatchewan, Saskatoon, Canada.

Mark W. Bruner, MSc, is a doctoral candidate in kinesiology at the University of Saskatchewan, Saskatoon, Canada.

Tammy M. Girolami, MEd, is a vice principal at Bedford Road Collegiate, Saskatoon, Canada.

Patrick Odnokon, MSc, is a research assistant in kinesiology at the University of Saskatchewan, Saskatoon, Canada.

Catherine R. Gryba, BSc, is a manager for the City of Saskatoon in the Community Services Department, Saskatoon, Canada.