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## Physical Activity in Intermediate Schools: The Interplay of School Culture, Adolescent Challenges, and Athletic Elitism

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### Abstract

The intervention potential of physical activity programs for intermediate schools (grades 7–9), could be enhanced by an understanding of how students engage with and disengage from physical activity. This study provides an interpretation of how adolescents, parents, teachers, and principals perceive students' involvement in physical activity within their intermediate school environment. Thematic analyses of eighteen interview transcripts resulted in an interpretation of students' continuum of engagement with or disengagement from physical activity. The continuum is reflective of a social process that is grounded in three key themes: school culture, social valuing of athletic elitism, and adolescent challenge

### Keywords

Physical Activity, Intermediate Schools, Adolescence, Athletic Elitism, and Qualitative Methods

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## **Physical Activity in Intermediate Schools: The Interplay of School Culture, Adolescent Challenges, and Athletic Elitism**

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*The intervention potential of physical activity programs for intermediate schools (grades 7–9), could be enhanced by an understanding of how students engage with and disengage from physical activity. This study provides an interpretation of how adolescents, parents, teachers, and principals perceive students' involvement in physical activity within their intermediate school environment. Thematic analyses of eighteen interview transcripts resulted in an interpretation of students' continuum of engagement with or disengagement from physical activity. The continuum is reflective of a social process that is grounded in three key themes: school culture, social valuing of athletic elitism, and adolescent challenges. Key Words: Physical Activity; Intermediate Schools, Adolescence, Athletic Elitism, and Qualitative Methods*

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School-based physical activity programs have been designed to increase physical activity levels in kids and optimistically counter the growing obesity levels of today's youth. What has been missing from such approaches is an understanding of the theoretical constructs that influence whether or not kids increase their levels of physical activity.

Over the past two decades, childhood obesity has increased at an alarming rate (Ball & McCargar, 2003). Physical inactivity is one of the lifestyle factors that has been identified as contributing to this "epidemic of obesity" (World Health Organization, 2000), and childhood activity levels have been identified as being an important predictor of physical activity patterns in later life (Pate, Baranowski, Dowda, & Trost, 1996). Several studies in both Canada and the United States have raised concerns about low levels of physical activity in children. In 1999, Cragg, Cameron, Craig, and Russell reported that only 44% of U.S. children were involved in daily physical activity and only 19% between the ages of 11 and 15 were involved in one hour of extracurricular physical activity daily. The Canadian Fitness and Lifestyle Research Institute (2000) concluded that 57% of Canadian children do not meet minimum activity requirements for maintaining a healthy lifestyle with girls reporting lower levels than boys. Further, there appeared to be an inverse relationship with age. In the 5 to 12 year old age group, 56% of girls and 47% of boys were not active enough to expend at least eight kilocalories per kilogram of body weight per day. This increased to 70% of the girls and 60% of the boys at ages 13 to 17. Irving et al. (2003) concluded that only about two-thirds of students in Ontario meet the current recommendations for vigorous physical activity, while in Prince Edward Island (where our study is located), research suggests that over half (54%) of

children and youth (5-17 years) fail to maintain activity levels sufficient for optimal growth and development (Statistics Canada, 1999).

Several barriers to implementing physical activity programs in school have been identified, including: lack of time, resources, facilities, and motivation, in addition to a lack of attention to gender issues and quality daily physical education. Other barriers include the need for appropriate professional development opportunities, the emphasis parents and teachers place on academic subjects, and differing perceptions of physical education by educators and students (Seefeldt & Ewing, 1997; Tergerson & King, 2002; The President's Council on Physical Fitness and Sport, 1997).

Finding ways to increase physical activity levels means understanding how children are motivated to become more physically active. When asked about their reasons for playing school sports, children aged 10 to 18 rated "having fun" as the most important factor followed by being with friends, becoming physically fit, staying in shape, and improving skills (Ewing & Seefeldt, 1989). However, the motivating factors underlying involvement in organized sports may be different from those motivations for physical activity in general. Further, there may be important gender differences. Godin and Shephard (1986) found that girls exercised mostly because they wanted to look better while boys wanted to have fun. A more recent study by Tergerson and King (2002) showed that the most commonly reported benefit of exercising among girls was "to stay in shape" while among boys it was "to become strong." Since adolescence is a time when gender differences become particularly evident, and studies have shown that girls tend to either drop out of sport and physical activities at this developmental stage or turn to those activities that are considered more gender-appropriate (e.g., gymnastics and dance) (Cockburn & Clarke, 2002; The President's Council on Physical Fitness and Sport, 1997), gender must be part of how we understand students' engagement with or disengagement from physical activity.

Given that the economic burden of physical inactivity has been estimated to be approximately 2.4% of the total direct health care costs in Canada (Katzmarzyk, Gledhill, & Shephard, 2000), and that physical activity provided in the school environment is considered to be an ideal way to prepare children for a healthy, active lifestyle (Summerfield, 1998), it is important to determine the factors that influence participation at an early age. Thus, the purpose of this study was to better understand adolescents' engagement with and disengagement from physical activity by examining how the facilitators and barriers to physical activity work within intermediate school environments.

## **Methodology**

A qualitative approach is the best methodology to explore people's experiences within schools of the facilitators and barriers to students' physical activity because it draws from multiple perspectives (students, parents, principals, and teachers) to more fully explore people's understanding of the phenomenon of interest (Denzin & Lincoln, 2005). The cornerstones for this inductive project are based in methodological hermeneutics (Packer & Addison, 1989, Gergen, 1989, Heidegger, 1927/1962, Rennie, 2000), an interpretive approach that seeks overarching constitutive themes from textual data. The overarching themes are categories that serve to illustrate how the phenomenon

comes to be experienced by people in the setting. The research team works closely with the textual data to generate a broad set of categories that thematize an initial understanding of the phenomenon. This broad categorization then becomes successively more integrated through several iterations with the research team who interrogate their understandings of how the various categories fit to create the experience.

### **Participants**

A convenience sample of six students, six teachers, three principals, and three parents from three intermediate schools was selected based on the following inclusion criteria. Students were selected who were of average activity levels, identified as neither very active nor inactive with respect to physical activity within and outside the school. Parents were eligible if they had a child in grade 8 or 9, if they were familiar with the school programs, if they were interested in the topic of physical activity and youth, and if they would be available for an interview after school hours. Teachers were invited to participate in the study if they were the school physical education teacher, the health teacher, or if they were interested in physical activity and youth. The principal of each selected school was invited to participate. Schools were eligible to be selected if they included a mixed urban and rural population, and were identified by the school district as being representative of the norm for intermediate schools within the province.

The convenience sample was generated in stages. First the school board gave us the list of schools, second the principals gave us the list of teachers, and third the principals and teachers selected the students. The research team did not know any of the participants, but the nature of school environments would have meant that the participants would have known each other, although in the case of students, none of them knew of the others' participation at the time of the project.

### **Procedure**

This study received ethical approval from the University of Prince Edward Island Research Ethics Board. The school district agreed to participate in this study and sent an invitation to principals on behalf of the research team to three eligible schools as per the criteria described above. The principals met with research staff to discuss the study and any concerns they might have with their school's involvement in the research. All three of the selected schools continued with the research.

The school sent information letters directly to the parents informing them of the study and requesting permission for their child to participate. Interviews were scheduled with the participants at a time convenient to them. Students, parents, teachers, and principals participated in interviews using semi-structured taped interviews lasting approximately 30 minutes.

The semi-structured interview guide was developed by the research team using data from the published literature, experts in the field of physical activity, and feedback from students and teachers during the initial pilot stages of the research. Questions were identified that explored what types of physical activity were available at the school, resources to support activity, and facilitators and barriers to physical activity. Interview questions were drafted to identify factors within the physical and social environment of

the school that acted as barriers and/or facilitators to students being physically active. The draft interview guide was pilot tested for clarity and content and revisions were made based on the feedback from our pilot stage (See Appendix A for sample interview questions).

### **Data Analysis**

Verbatim transcriptions of interviews were analysed by a four person multi-disciplinary research team (psychology, nursing, nutrition). Research team dyads divided the transcripts into three sets: students, parents, and teachers/principals. Perspectives from each of these sets were expected to provide a different lens on a common issue, specifically student involvement in physical activity within the school environment. By using the multiple perspectives on why students engage with and disengage from physical activity, we expected to gain a fuller understanding of the concept. Students gave us the perspective of youth, the usual target for these kinds of interventions, parents gave us the insight of families interested in supporting their child in their school environment, and teachers and principals offered insights from the administrative and program side of the school environment. Our data reflect an amalgamation of insights from several relevant perspectives. Rather than force the data from these different perspectives into categories, our research team decided to begin analyses from the sets and then ask how the different perspectives fit together. The analysis procedure is described below.

Analysis proceeded according to a systematic four step plan. In the first step, open coding (Emerson, Fretz, & Shaw, 1995), was conducted by each researcher pair analysing her set of transcripts. Significant statements that related directly to the experience of being physically active were identified. The open codes from each set were discussed at a team meeting and used to inform the second step in the analysis.

The second step involved round table discussions amongst the research team to identify themes from the open codes (Patton, 2002; Pieranunzzi, 1997). A cross set comparison strategy was used wherein each set of transcripts; the student set, the parent set, and the teacher/principal set were considered simultaneously for their initial thematic groupings. The purpose of this cross set, comparison strategy was to compare the experience of all participants and identify significant statements that were common among them. It was at this point in the analyses that the team discussed how the three different sets of transcripts from (a) students, (b) parents, and (c) teachers and principals were complementary and contradictory. We found little or no contradiction in the transcripts. Rather the information was complementary; offering a fuller understanding of the issue. Emergent themes or categories were taken back to the original transcripts to validate them, to check for inconsistencies or contradictions, and to enhance the trustworthiness of the interpretation.

This strategy of moving across and within sets for comparisons facilitated the process of critical reflection on and identification of themes as they are found in the accounts of multiple respondents (Swanson-Kauffman & Schonwald, 1988). Definitions of overarching themes were written to make the themes explicit. The written definitions of the themes were used to mark the beginning of the third step in the analytic process, locating key exemplars of each overarching theme across participants. Triangulation of the key exemplar process involved the full research team. The research team met to

discuss the significance of the themes, marking the fourth step in the analysis; explanation for how the themes relate to one another. In practice, the third and fourth steps are an iterative process and the team had several repetitions of this process over the course of three months, which resulted in the final three key themes. The culminating series of discussions within the research team focused on explaining how our themes were part of a social process operating at the school.

Trustworthiness of the interpretation is located at several junctures throughout the analysis. First, we used multiple sources for our textual analyses, including students, parents, teachers, and principals. Second, the four step analytical plan was discussed among the research team to ensure fidelity to our approach. Third, all members of the research team were involved in the analysis so that we had triangulation of researchers. Fourth, each interpretive iteration was discussed among the team in the spirit of debate and thoughtful reconsideration. For example, if a researcher thought that two themes were actually part of a larger theme, then she would present this idea and her rationale to the group. A member of the team was to act as “doubter” of the proposed thematic collapse and come up with reasons why this should not be the case. The discussion was then continued until the research team reached consensus on the interpretation. In every case, proposed changes were accepted after they were fully argued so that we began with five and ended with three more comprehensively interpreted themes. Finally, themes were organized from the open codes, but they were also discussed in terms of the original transcript so that the context of interpretation could be fully understood. Thus multiple sources of information, researchers, and iterative processes all contributed to the trustworthiness of our interpretation.

The research team consisted of the three authors and a research assistant. Ms. Murnaghan, a nurse, was the lead researcher for the Comprehensive School Health Research Team in Atlantic Canada. Dr. MacLellan, a nutritionist, and Dr. MacQuarrie, a psychologist, were co-investigators with the project. We were working with schools, researchers, students, and community leaders to better understand the physical and social environments of schools as sites for promoting healthy active students. We believe that enhancing the health of our youth has the potential to being the most effective strategy for healthy communities for the future.

## **Results and Discussion**

Youth involvement in physical activity can be conceptualized as a dynamic social process that each student negotiates along a continuum of engagement/disengagement. The level of engagement/disengagement is determined by a unique interplay of each student’s experience within three key constitutive themes of school environment which emerged from the analyses: school culture, social valuing of athletic elitism, and adolescent challenges. The complexity of each student’s experience contributes to an idiosyncratic combination of the three themes resulting in a personal decision to engage with, or disengage from, a particular physical activity at a given time within their intermediate school environment. This means that the themes are interlinked and it is their combination, which we believe is important for each student’s decisional balance around physical activity. Our understanding emerged from our team’s discussion and interpretation of the textual data.

## School Culture

School culture is best described as the attitudes and values toward physical activity that are portrayed by the school. Every school has a unique culture around physical activity, and this culture influences how opportunities for physical activity are created within the school context. For example, students, teachers, principals, and parents recognized that how a school approached the notion of physical activity had an important impact on how active the people in the school were. This teacher's comment reflects upon a holistic understanding that "...the whole school atmosphere, I think it really does promote and want kids to be involved (with physical activity) ...." Students commented upon the encouragement of their teachers, "Miss C also encourages us to do stair walking." Furthermore, the culture of activity did not limit itself to proscriptive encouragements, but rather extended to include social modeling. "We usually have, we do the Terry Fox Run here with the staff and the kids. Just different activities we do through the year to get the kids more...aware of the benefits of physical activity..." (Teacher).

Constructing this culture within the school must be a deliberate act that accounts for the structure of the school day and the constraints on students. In particular, building opportunities for physical activity into the curriculum and making physical activity a priority were seen as instrumental in crafting a culture of physical fitness, as this principal stated, "...it was built right into the program when the school was designed and the timetable was organized to facilitate intramurals..." Thus, part of school culture is the structure of the day and competing demands for limited time expressed by all respondents, including this student who talked about the challenges of fitting physical activity into the school schedule. "Our lunch is 45 minutes but..., especially in the cafeteria, the line is long so by the time you eat...it is thirty-five after and you only have 10 minutes."

Part of school culture centered around monitored activities, which can feed into creating opportunities for physical activity. For example this teacher described how intramurals

makes it easier when you are supervising in the halls because if you get some children in the halls that are loners or somebody who socially is inept then sometimes they get picked on. So what these children will do is that they'll come into the gym where they know it is safe and they'll watch the sports.

Intramural programs are an important part of school culture because they can be compatible with student and teacher needs during out-of-class time and they signify the value of physical activity.

In creating a culture for physical activity, teachers spoke about placing students at the center of planning as well as implementation of programs. Teachers talked about how important it was that "...students were involved with the organization, the officials and things of that nature because they had more ownership in it." In contrast, students did not talk about the importance of being involved in the planning and implementation. This difference between students' and teachers' emphasis on student involvement is likely due



to the unique standpoints of students and teachers who occupy different roles and expectations within the school environment. Part of the teacher role is to pay attention to the logistics of running a successful program, whereas this is not part of the student role. Thus, without directly asking students to think about the logistics behind programming, they are unlikely to spontaneously offer insights about it. Since we did not specifically invite students to comment on their leadership roles around program implementation, we can only infer that students would be supportive of their involvement in planning and implementation.

The school culture must also attend to the concern for promoting positive working relationships among teachers and the impact that some programming may have on other teachers' abilities or resources to accomplish either their curricular or their enrichment goals. For example, a teacher mused on some of the implications of taking students outside for their gym period versus staying in the gymnasium. "I don't know if the teachers in the afternoon like that when they get them after that (gym class)." Adding to this, collegial tension is the undercurrent of competing resources between athletics and other enrichment programming as illustrated by a teacher who quipped, "Academics are extremely important, but to the detriment of physical activity, I don't think so." Teachers spoke about how they had experienced some of the frustrations of shrinking resources for schools. "I've been approached in a negative way about phys. ed. and how it'd be better maybe if theatre and things and drama were here instead of phys. ed." Thus care must be taken to ensure that embracing a culture of physical activity is understood and experienced as an essential element of school programming. Funding that creates an environment of scarce resources and pits programs against one another creates an unfortunate dynamic of turf wars that degrades the school culture.

Peterson and Deal (1998) have identified the importance of a school's culture in terms of its impact on student success, and our research echoes their findings in terms of making a difference in students' lifestyles. To the extent that a school involves everyone from students through to administration, in the planning and carrying out of ways to engage everyone in an active lifestyle, the stronger that school culture appears to be on the promotion of physical activity. Thus school culture around physical activity may be conceptualized as a continuum, extending from a low level of promotion symbolized by a lack of effort and attention to integrating physical activity into the day, to a high level in which all levels of the school population are involved in the promotion and planning of a physically active school culture.

### **Social Valuing of Athletic Elitism**

Across all participants an overarching theme emerged around the value of being athletically skilled. This theme reflects how respondents judged students' abilities and athletic skill and how they spoke about student involvement from the perspective of valuing a hierarchy of athleticism. Throughout these conversations is an implicit valuing of higher skill sets and athletic elitism as a cherished attribute. Within a culture of prizing athleticism and awarding elite performance, students who do not measure up are made aware of their lack of skill in a variety of subtle and obvious ways. For example, cutting across the conversations about physical activity was the concept that some students are simply not as skilled as others as in this teacher's comment,

We get a variety of different students. Usually the best athletes in the school are in intramurals right from September right through til June. They don't miss at all. Then you'll get some kids that are pretty good players but maybe didn't make the team. Then they're there quite a bit. Then there's a few that just come, they're not really that skilled but they really enjoy to play.

The implicit valuing of athleticism comes through in the way in which students are evaluated about their skill, even in a seemingly non-competitive venue such as intramurals. Statements that assume that even those who are classified as "unfit" may still have merit in physical programming belie the attitude that there is a hierarchy with elite athletes at the pinnacle and those of lesser skill below with a category of "unfit" at the bottom. This teacher's statement gives a flavour for how students who are not fit are conceptualized within schools: "We have some students who are very unfit and they don't come into the intramural program and sometimes it's hard to reach them because they go home and sit in front of the television set and eat."

Thus statements about students who were unfit also held unflattering assumptions about them. Judgements about what constituted acceptable levels of performance were made by parents and students alike, so that students such as this one, spoke from a perspective of objectively evaluating their physical abilities. "I just don't think my legs are that great. I have really weak ankles now." Yet, it is important to note that this student did not have a physical disability, rather he had made a judgement about his ability, which seemed to preclude his enjoyment of non-competitive physical activity. Some parents provided insight into how athletic elitism in schools can work against the long term goal of physical activity. "They have a lot of elite players - so those players are going to make the teams and there will be a lot of kids left out." One parent despaired over her child's apparent lack of involvement in sports programs even though he was quite active in solitary physical activities. "... (he) may not get enough physical activity in school but it wouldn't be the school's fault (it would be his because of his dislike for competitive sports)." What came through this parent's narrative was the sense that the school's programs, while being comprehensive and broadly based in team sports, did not fit the youth's interests in noncompetitive activities. Therefore one outcome of valuing athletic elitism is that it privileges some students and activities over others, and this does not create a culture of inclusion around physical activity.

Social valuing of athletic elitism is problematic in several ways because it can create rifts in school cohesion and entrenches privilege along gender lines. Within the school culture, placing higher value on athletic elitism can fracture the student population into subgroups, whose sense of belonging will vary depending on how much they feel they are important and connected to the school. Student judgements of belonging are core to motivating students' involvement in physical activity which connects to another problem. Western culture sends clear messages of what it means to be male so that the valuing of athletic elitism and male gender development coalesce to enhance and entrench men's involvement in sport (Schmalz & Krahnstoever Davison, 2006). On the other hand, for females the overall cultural message contradicts athleticism, so that to be a strong skilled athlete stands in direct counterpoint of what it means to be stereotypically feminine (Cockburn & Clarke, 2002). Thus for girls the coalescence serves to undermine

physical activity, and girls need to find ways to persist as athletes despite broader cultural influences. Research suggests that girls who navigate this divide tend to enjoy a range of benefits both in the short and long term (The President's Council on Physical Fitness and Sport, 1997; Valois, Zullig, Huebner, & Drane, 2004).

The paradox is that within school cultures, the on-the-ground solutions of gender segregation, creating separate activities for girls and boys (Tergerson & King, 2002), may serve to reinforce the cultural views of femininity and masculinity so that the status quo is preserved. The bind that girls must untangle, relative to boys who do not experience this disconnect, between performing masculinity and involvement in athletics, is further entrenched by gendered programming. This controversial issue has generated provoking debate about how best to facilitate girls' and boys' engagement in physical activity in general and sports in particular.

### **Adolescent Challenges**

All participants made reference to the importance of understanding engagement in or disengagement from physical activity in the context of the developmental tasks for this age group. For example, this parent pointed out,

I think a lot of it at this age depends on what your friends are doing... but this age group is a very difficult age group like that. ...she's very into that image thing...how her hair is doing at the moment and boys.

Therefore, the challenges to involving students in physical activity lie beyond general motivation and extend to a more complex interaction with adolescent development as they navigate the socio-emotional and physiological changes inherent in becoming an adolescent in our culture.

In particular, addressing the challenges to engaging intermediate students in physical activity must include an understanding of their unique standpoint which encompasses the adolescent's emerging sense of gender identity and sexuality. As this teacher pointed out,

At this age level the girls sometimes don't want to mix with the boys because the boys will make comments about their legs or shorts or something and sometimes the boys are more aggressive. We do have some very good athletic girls in our school who can compete with the boys. Some of the girls who aren't as athletic don't want the boys in there. Now when we do our fitness unit and our track & field unit and our gymnastics unit, we combine the two groups, and we put them in groups and they rotate through stations. (Teacher)

In general, teachers agreed that separating the sexes was useful for facilitating activity, particularly for girls, in this age group. A gendered perspective on physical activity attempts to account for the wider cultural context of how girls' confidence can be enhanced as they navigate their individuality within a patriarchy (The President's Council

on Physical Fitness and Sport, 1997). And some teachers used a gendered analysis to solve the challenge of keeping girls engaged in physical activity.

One thing that probably the phys. ed. program would be improved by, having a section on aerobics or a section on dance, because I think that probably would appeal more to the girls... There are a lot of girls who are quite active with the sports program that we have right now but if I compare them to the boys, the boys seem to be more involved with the sports programs. Probably if we had dance and aerobics it would shift a little more in the other direction. You might have more of a balance.

On the surface, this attention to the interests and motivations of girls is laudable. It makes sense to work within the horizon of motivations for youth, paying close attention to cultural differences which would include gender differences as well. However, there is some evidence that segregating physical activity could potentially undermine the goal of life long involvement in sports for women. Some research suggests that women who are active in sports tended as girls to play mostly with boys or in mixed gender groups (Giuliano, Popp, & Knight, 2000). Thus, on the one hand it appears to be a smart policy move to integrate within the school the culturally prized activities that are stereotypically feminine; this has the potential to enable more girls to embrace a physically active lifestyle. Yet, there may be long-term repercussions of segregated programs if they work to entrench gender norms that perpetuate inequality (The President's Council on Physical Fitness and Sport, 1997). The short term solution is to work on multiple layers of influence within the school culture to provide a variety of programs open to all students and to simultaneously work on shifting the performance norms for gender within the school (Sallis et al., 2001; Swain, 2002).

At the same time that intermediate school students are developing a sense of self, their bodies are also undergoing tremendous physical changes that can challenge their perception of themselves, as one student quipped about his athletic skills, "I suck." Another student described how, "I'd really like to be more involved in soccer, but I just don't have the skills and it's just too big, too long, to play soccer, and I'm too clumsy with my feet." Participants cited a variety of reasons for student inactivity including: a lack of motor skills, weight problems, lack of fitness, and students' self judgements of inadequacy. Teachers' comments also reflected the delicate balance between maintaining physical activity for students whose sense of competence could be undermined by their lack of athletic skill.

...some students who usually come to us and they're not very physically fit, or they may lack coordination and (they) may not be able to develop coordination skills so that they would function in a competitive venue without feeling very uncomfortable or inadequate.

This internalized sense of inadequacy is often stated as a problem for facilitating student involvement in physical activity (Hanna, 1998) and gestures toward the kinds of interventions that might be effective.

Within the adolescent challenges theme, aspects of development are intertwined with motivation for physical activity. These developmental underpinnings included ways to address the motivational challenges for intermediate students such as providing unstructured activity time, de-emphasising competition, providing a secure environment, and giving students a variety of activities and roles. All participants identified the cross cutting theme that students are motivated by fun and enjoyment regardless of their skill level. Teachers spoke about how being in tune with students' other interests such as music can also motivate participation.

I find that really helps certain people that might not be that interested in the activity but they'll play it because they like the music that's on [in the] ... the gym and ...kind of motivates them to continue to play.

These findings are supported in the literature around the value of intramurals that seek to create a genuine, relaxed, and respectful atmosphere of playfulness around the school (Hanna, 1998).

Participants talked about the importance of a sense of belonging and how that became a key to motivating students' participation in physical activity. Sport teams capitalize upon the sense of belonging as a prime motivator. And for students with higher skill levels, sport competitions can enhance their motivation even further. However, sports competition can be limiting for some students as this teacher illustrates.

So between every structured league we run simply play time and you get different students that come in because some of them don't feel they are athletes and so they don't want to come in and take part in a team where they might be under a little bit of pressure.

Having a variety of activities available to encourage participation seemed key to holding the interest of a wide cross section of the student population. One principal noted that, "Some kids are not interested in organized sports so other types of activities need to be developed to motivate these students." Teachers also described alternative ways to create the sense of belonging and achievement that can motivate students.

...a couple years ago we had the big girls club...we had a little contest to see how many kilometres we could walk and there were prizes at the end because these girls were above average, you know, in size and height. ...And we got together once a week and we talked about healthy living and exercise and fashion and make-up and all that kind of stuff.

Part of motivating intermediate students includes recognition for their involvement and this seemed to be a valuable part of physical activity programs. The recognition does not always have to be based on athletic skill, but it might be based on other valuable attributes that this teacher described as "...an intramural award for those individuals too that come out just to play for fun every day."

The intermediate student is simultaneously grappling with emergent physiological changes and a shifting understanding of who they are as a person. Constructing an identity sensitizes you to issues of self that are also understood in relation to others so that group affiliation needs are strong for this age group. These developmental tasks were mentioned by all participants as they recognized the unique constellation of developmental needs that create the fabric of the lives of intermediate school students. The adolescent challenges theme encapsulates the problem of motivating students to be physically active at this point in their development.

### **Conclusions and Implications**

The three themes that emerged across the interviews encompassing components of the school culture, the implicit valuing of athletic elitism, and the unique developmental challenges of motivating intermediate students merge to create a context for physical activity in the school. The merger creates barriers and facilitators for individual students, according to a complex interweave of how that student experiences the various contexts. Thus for some students, there is a relative balance toward the positive supportive end of the continuum for each of the themes and this can serve to facilitate physical activity. For others there is a relative balance toward the deficit end of the continuum which serves to undermine physical activity. Thus it is not a simple tally of facilitators and barriers to physical activity, but rather a complex interplay of coalescence and clash that serves to create a unique constellation of barriers and facilitators for individual students.

The task is to understand how the various themes work together to enhance student activity levels. Enhancement of physical activity levels is most likely when the social processes in the school that create a school culture are also compatible with a student's identity that is aligned with values around athleticism. When the school culture clashes with the developmental tasks of identity or the student's self concept as non-athletic in an environment of athletic elitism, then the student is more likely to disengage from physical activity programming. Understanding these components, the subtext of the school culture, the developmental tasks unique to boys and girls at this transition point in their lives, and the social valuing attached to athletic elitism is central to building interventions within the schools that pay attention to the pitfalls and perks of the intermediate school culture. Rather than one size fits all programming, student centric programs that can be designed by students for their unique developmental challenges and identities might be the more effective interventions.

Student involvement in designing their programs would maximize the likelihood that more students would engage in physical activity for a variety of reasons that have to do with the social processes inherent in the combination of these three themes. This is partly due to the fact that schools that work with students tend to create a climate of involvement among the student population and expectations for involvement. Also, partly because the students know what fits their unique standpoint within their school, their developmental needs, and the value that they attach to athletic elitism. In this way, some students might design programs that downplay competition, that cater to less traditional activities such as yoga or dance, and that fit with the social needs of their developmental level and that might be more gender targeted. Other students might prefer to focus on

some level of competition and skill development, but combine it with mixed gender groupings. The diverse nature of the student population could be built into the program design with students from various standpoints contributing to the overall design and implementation of programs. In using a student centric approach, the potential to have more students experience a coalescence of the three themes is increased and so is the likelihood that they will engage in physical activity more often.

The results of this research suggest that further research needs to be conducted to examine how funding and curricular policies construct school climates around programming, which may create lose-lose situations that denigrate the spirit of schools working to enhance students' experiences. More research is also needed to explore the extent to which student involvement at all levels, from planning through to implementation, might contribute to success in a diverse range of school programs. The role of spectator should be investigated more fully to determine its impact on students generally and more specifically analyzed with a gender lens to understand how it may entrench cultural norms of femininity. In addition, the influence of expectations needs to be explored in terms of understanding how negative stereotypes impact upon students deemed "unfit" by their teachers and future research could examine student perceptions of this form of judgment.

This project focused on the school environment which has been shown to have a key role in activity levels in the school (Sallis et al., 2001). A broader perspective using a social ecological approach would give a richer portrayal of other influences on student activity levels, which would include community assets for physical activity including how families value physical activity, are physically active (or inactive) in their communities, and the socio-economic contexts and resources of physically active families and communities. A social ecological model would expand the analysis out of the school into the wider community.

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## Appendix A

### Sample Interview Questions

- a) Types of physical activity available:  
What kinds of physical activities or sports are available at your school?  
What kinds of informal activities are available?  
In a typical gym class, would students be physically active (sweating and breathing hard) for at least 20 minutes?  
Which activities help students to be that active?  
Are there other sports/activities that you would like to see offered for students?
- b) Resources available, barriers and facilitators:  
What resources and/or equipment are available for physical education in your school?  
What equipment would you like to have that is not available?  
Is there anyone at your school who you feel encourages/discourages physical activity?  
What could be done to help students in this school to be more active?

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