Factors that Influence the Physical Activity Levels of Youth in Urban and Rural Settings

What is this research about?
This study investigated the difference in physical activity (PA) levels of urban and rural youth in Canada. Specifically, the researchers explored the psychological, demographic, behavioural, and social factors affecting the level of PA for Canadian youth in urban and rural settings.

What did the researchers do?
From mid October to mid November, 2000, the researchers administered a survey to 1,398 youth from 4 urban schools in the Greater Toronto Area and 1,290 youth from 4 schools in rural Alberta. The average age of student participants was 15.6 years. The questionnaire return rate was 81.6% for urban schools (674 girls, 724 boys), and 80.9% for rural schools (722 girls, 568 boys).

What you need to know:
This study examined the psychological, demographic, behavioural, and social factors that impact rural and urban Canadian youth’s level of physical activity. The researchers found the psychological factors of perception of ability and self-efficacy to have the greatest impact. The role of gender, social and behavioural variables are also discussed.

The survey consisted of the Godin Leisure-Time Exercise Questionnaire, which measures an individual’s level of physical activity. Students completed the questionnaire in school, during regular class time. The questionnaire asked students about the frequency of their hard to moderate physical activity over the past week and the number of minutes of hard and moderate activity they did on each individual day.
Hard activity was described as that which “raised your heart rate and made you breathe and sweat”, while moderate activity was described as a “lower intensity activity like walking or bicycling, or recreational swimming.”

The researchers assigned a metabolic equivalent value (MET) to each activity to assess the level of activity expended and used this data to determine a physical activity level for each participant.

Survey items were also used to assess:
- students’ interest in participating in physical activities. For example, students were presented with the statement, “I am interested in activities that are done with a large group or team (aerobics or soccer)”, to which participants were asked to choose an answer ranging from “not interested” to “very interested”.
- students’ behaviour with respect to physical activity. For example, whether they took a physical education class, how they travelled to and from school, the number of hours per day they spent watching television, whether they smoked cigarettes, whether they worked part-time, and the average school grades they received the year before.
- the physical activity level of those in a students’ social circle. For example, students were asked how many of their closest friends participated in physical activity, and how many people in the student’s home participated in physical activity — to which participants were asked to respond by choosing from a range of answers from “none of them” to “all of them”.

Students were also asked to self-assess the following:
- their physical activity level on a scale from “poor” to “excellent”;
- their perceived health in comparison to peers on a scale ranging from below average to above average;
- their perceived efficacy at physical activities from “I’m sure I can’t”, to “I’m sure I can”;
- perceived health in comparison to peers, from below average to above average;
and to report any concern they had about weight gain and desire to lose weight over the next 12 months.

The researchers also explored factors known to influence physical activity levels in youth including demographic variables (age, sex, ethnicity, body mass index (BMI) and a family’s financial situation), which were collected as part of the overall survey. For example, student participants were asked to describe their family’s financial situation by choosing on a scale from “well below average” to “well above average”.

What did the researchers find?
The researcher found several common factors which significantly influenced PA regardless of location. This included gender, with girls engaging in less physical activity than boys in both rural and urban schools.

Psychological variables, however, had the greatest impact on physical activity levels — students who rated themselves higher on physical ability and self-efficacy tended to engage in higher levels of physical activity than those who rated themselves as lower in ability or efficacy;

The only behavioural variable to have a significant influence on levels of physical activity was ‘use of recreational time’ — students who were active in their free time reported higher levels of overall physical activity levels;

The influence of parents and peers was also found to be significant — those students whose friends and parents who were active had higher levels of physical activity than those whose parents and friends were not as active;

In terms of differences, urban students, tended to see physical activity as a way to stay healthy and to control weight gain more so than rural students. Travelling to school was also positively associated with higher PA for urban students who walked to school as compared with rural students who are often bussed.

Also, for rural students, taking a physical education class at school was associated with higher levels of overall physical activity. This trend, however, was not significant for urban students, who may have more access to equipment and other recreational activities outside of school.
How can you use this research?

Educators may want to use this research as a starting point for discussions about the physical activity levels of students in their schools.

Given the association that this research found between students’ perceived ability and efficacy at physical activities and their overall level of physical activity, educators will also want to consider methods to enhance students’ positive self-perception about their ability and efficacy at physical activities.

Additionally, teachers and administrators interested in increasing students’ physical activity levels will want to consult the wider body of research on factors that influence the physical activity levels of urban and rural students, factors that influence girls’ involvement in physical activities, barriers that prevent girls and boys from participating in physical activities, and strategies that may be used to enhance all students’ participation in physical activities in and outside of school.

Original article:
To learn more about this research study, we invite you to read the original article:


About the researchers:
Please address all correspondence to Dr. Plotnikoff.

At the time of this research study, **Constantinos Loucaides** was a Postdoctoral Fellow with the School of Public Health at the University of Alberta. conlou@avacom.net

**Ronald Plotnikoff** was a Professor with the School of Public Health at the University of Alberta. ron.plotnikoff@ualberta.ca

**Kim Bercovitz** was an Assistant Professor with the Department of Public Health Sciences at the University of Toronto. k.bercovitz@utoronto.ca

Keywords:
Physical activity; exercise; adolescents; urban students, rural students, student health
About this summary

The Ontario Education Research Exchange (OERE) is a project of the Knowledge Network for Applied Education Research, an Ontario network promoting the use of research in education. The OERE's clear language summaries of academic research aim to support this mandate.

This summary has been adapted from the ResearchSnapshot series developed by York University and ResearchImpact and has been developed according to writing and design principles unique to OERE. For more information about this summary or the OERE network please contact oere.knaer.oise@utoronto.ca.

This summary reflects findings from this study only and is not necessarily representative of the broader body of literature on this subject. Please consult the original document for complete details about this research. In case of any disagreement, the original document should be understood as authoritative.