PHYSICAL ACTIVITY AMONG SHERBROOKE YOUTHS

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1 – Introduction

a) In recent decades, the prevalence of overweight among children has increased considerably. An estimated 10% of the world's school-agers are considered to be carrying excess body fat and a quarter of them are obese (Lobstein & al., 2004).

b) From 1978 to 2004, Quebec saw an increase of 55% of children carrying excess body fat, mainly due to the increased prevalence. More precisely, 16% of children aged 2 to 17 are considered overweight and 7% obese (Lamontagne & Hamel, 2009).

c) Regular physical activity can help to prevent and reduce obesity or to maintain healthy weight (World Health Organization, 2007).

d) Experts suggest that children and adolescents aged 6 to 17 can achieve substantial health benefits by doing moderate- or vigorous-intensity physical activity for periods of time that add up to 60 minutes or more each day (Physical Activity Guidelines Advisory Committee, 2008).

e) In Quebec, less than half (44%) of youths aged 12 to 17 achieve experts recommendations concerning physical activity (Nolin & Hamel, 2005).

2 – Objectives

This study aims to :

- Describe the physical activity profile of Sherbrooke youths aged 4 to 17.
- Present factors contributing to their disengagement from physical activity.

3 – Theoretical Framework

Structural model of health behavior: Behavior is influenced by individual-level attributes as well as population-level factors. Human behavior is describe as a reciprocal interaction between individuals and their environment (Cohen & al., 2000).

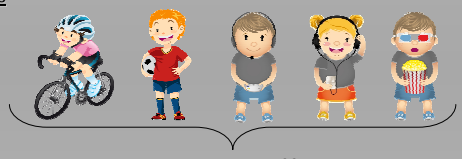
Figure 1. Structural model of health behavior. (Adapted from Cohen & al., 2000)

4 – Methods

- In spring 2008, as part of a multifaceted community project, a cross-sectional study was conducted with the participation of five organizations from Sherbrooke, Quebec's 6th most populous city (pop. 150,000). These organizations wanted to know the lifestyle habits of Sherbrooke youths in order to take subsequent action.
- Students from the entire Sherbrooke School Board (37 elementary schools and 5 high schools), which includes French-language public schools, received a self-administrative questionnaire. The main topics of this questionnaire were physical activity levels, organized sports, free play, active transportation and factors contributing to disengagement.
- In all, *13,862* questionnaires were completed by parents of elementary school (*N= 8,612*) and by high-school students (*N=5,250*).
- Frequency analysis and crosstabs were used to analyze data. All analyses were performed using SPSS 17.0.

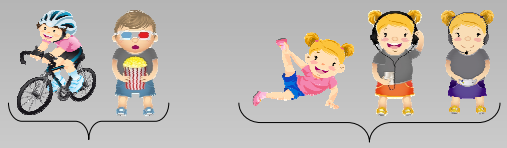
5 – Results

A)



Only two children and adolescents out of five (41.4%) engaged in at least 60 minutes of daily physical activity.

B) Boys were more likely to do so than girls, both in elementary and high schools.



Almost half (48.5%) of the boys and one third (34.3%) of the girls engaged in 60 minutes or more of daily physical activity.

C) The proportion of boys and girls who engage in at least 60 minutes of daily physical activity increases in early adolescence. This proportion decreases throughout the rest of adolescence, except for 17-year-old boys.

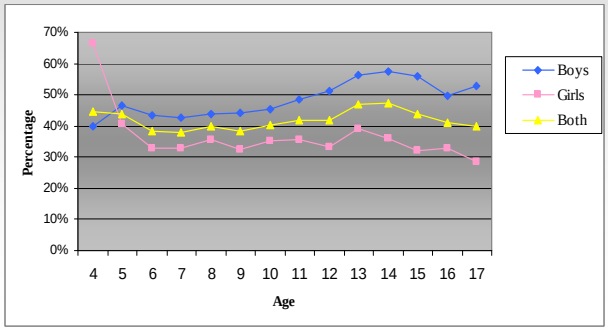
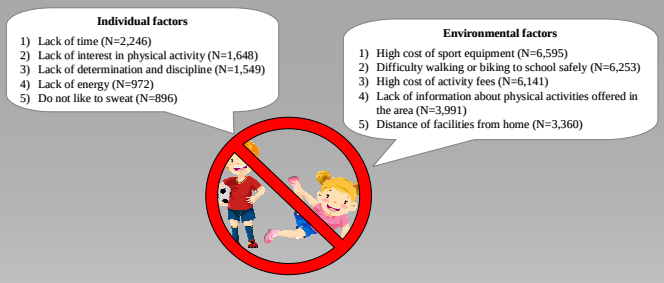


Figure 2. Proportion of Sherbrooke youths engaged in at least 60 minutes of physical activity by age.

D) Main factors contributing to the disengagement of youth from physical activity:



6 – Discussion

a) The results confirm the findings of Nolin & Hamel (2005) that states that less than half of children and adolescents achieve experts recommendations concerning physical activity.

b) They confirm that boys are more likely than girls to participate in daily physical activity. The differences between genders are significant at all ages (Currie & al., 2008). They also corroborate that the proportion of youths achieving experts recommendation decreases throughout adolescence (Nolin & Hamel, 2005).

c) This study shows that individual and environmental factors could contribute to the disengagement from physical activity. Environmental factors are the ones that are more frequent. Cameron & al. (2005) found similar environmental barriers for children's physical activity such as the high costs of participation in physical activity and sport and the lack of information about physical activities offered in the area.

7 – Conclusion

a) The results show the necessity to pursue health-promotion initiatives to encourage more youths to engage in 60 minutes or more of daily physical activity.

b) Special attention should be paid to high-school students because the disengagement process starts in adolescence and is more pronounced among teenage girls.

c) To get more youths to walk and bike to school, more walkways and bike paths around the schools should be built.

d) Finally, quality physical education programs allow youths to develop knowledge, skills and habits. So, they can adopt or maintain healthy and physically active lifestyles.

To consult the complete version of *Portrait des jeunes Sherbrookois de 4 à 17 ans en matière d'alimentation et d'activité physique et sportive* :
http://www.santeestrie.qc.ca/publication_documentation/documents/RapportFinal2010.pdf