CORRELATES OF OUTDOOR TIME IN SCHOOL CHILDREN FROM FAMILIES SPEAKING NON-OFFICIAL LANGUAGES AT HOME: A MULTI-SITE CROSS-SECTIONAL CANADIAN STUDY

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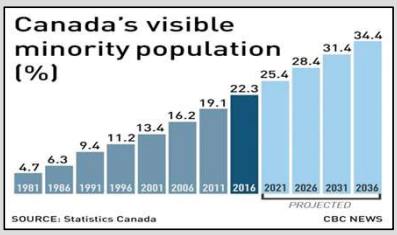
INTRODUCTION

- The Position Statement on Active Outdoor Play states that spending more time outdoors is associated with several physical, mental, social, and environmental benefits[1]
- Each additional hour/day spent outdoors was associated with an extra 7 minutes of moderate- to vigorous-intensity physical activity and decreased odds of negative psychosocial outcomes[2]
- A previous analysis found that outdoor time was the most consistent correlate of physical activity in Canadian children from families speaking non-official languages at home[3]
- Limited research investigating the correlates of outdoor time in this subpopulation

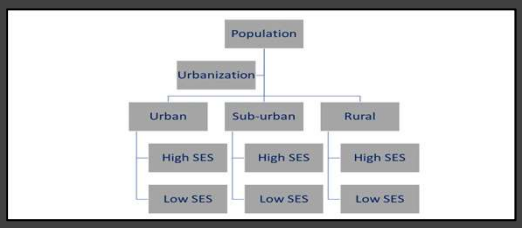


PURPOSE OF THE STUDY

- To study the correlates of outdoor time in elementary school children from families speaking non-official languages at home in Canada.

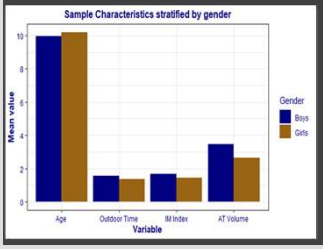
METHODS

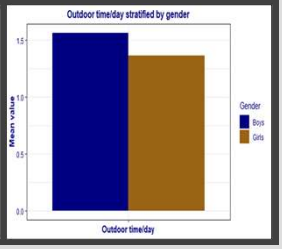
- Data obtained from the cross- sectional multisite Canadian "Active Transportation and Independent Mobility" (ATIM) study
- Participants were recruited from 37 schools in three regions of Canada (Ottawa, Ontario, Trois-Rivières, Québec, and Vancouver, British Columbia) between May 2016 and June 2017
- Sampling strategy:



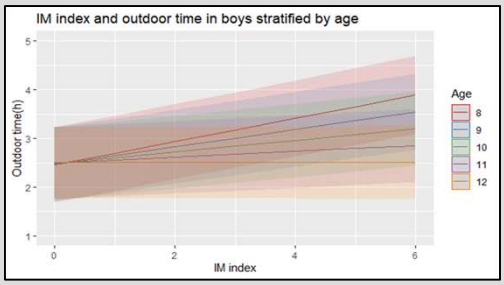
- Sample: 478 students aged 8 -12 who spoke a non-official language at home
- Children's outdoor time and data on potential correlates were collected via child and parent surveys. Weather data collected from the closest Environment Canada weather station
- Gender-stratified multiple linear regressions were used to examine associations between potential correlates and outdoor time
- Models controlled for age, site, area level SES, and urbanization[4]
- All analyses were performed with RStudio statistical software (version-1.3.1093) using 20 multiply imputed datasets

RESULTS





Variables	β	CI	P
Boys			
Independent mobility (IM) index	0.71	0.51, 0.92	<0.001
Phone ownership (yes)	0.23	0.16, 0.31	<0.001
Parent age (<30 vs ≥45)	-1.06	-1.29, -0.82	<0.001
Parent age (30-44 vs ≥45)	-1.09	-1.33, -0.85	<0.001
Parent-bikes to work (yes)	0.42	0.32, 0.51	<0.001
Mean temperature (°C)	0.03	0.02, 0.03	<0.001
Age* IM Index	-0.06	-0.08, -0.04	<0.001
Girls			
High school or less (ref = university)	-0.53	-0.91, -0.16	0.005
Adults look out for children (neither disagree vs agree)	-0.24	-0.47, -0.01	0.037
Some people make you afraid (neither/disagree vs agree)	-0.36	-0.63, -0.09	0.010



CONCLUSIONS

- Correlates of outdoor time differ by gender among non-official languages speaking children in Canada and span through the social-ecological model
- These findings might underscore the need for gender-sensitized interventions to increase children's outdoor time at individual, family, social and physical-environmental levels

STRENGTHS AND LIMITATIONS

Strengths

- Recruitment of a stratified sample and the collection of data in 3 regions of Canada
- Using correlates of outdoor time which span through multiple levels of the ecological model
- Gender-stratified analyses

Limitations

- Cross-sectional design
- Using only language spoken at home as a measure of acculturation
- Missing data
- Risk of type 1 error

IMPLICATIONS FOR PRACTICE & POLICY

•This study aimed to address the lack of previous research on correlates of outdoor time among children from families speaking non-official languages in Canada

•A recent systematic review on the correlates of outdoor time indicated that most previous studies did not use gender-based analyses. In our study, correlates of outdoor time varied by gender, suggesting that practitioners and/or policymakers could use different strategies to support boys' and girls' engagement in outdoor activities

• We identified a large number of correlates of outdoor time that span multiple levels of the social-ecological model. Our preliminary findings suggest that interventions to increase children's opportunities for outdoor play should target multiple levels of influence. For example, this can include variables at the individual (e.g., characteristics such as gender, age and independent mobility), family (e.g., parental support for outdoor play), social (e.g., parental concerns about social cohesion and safety), and environmental characteristics (e.g., providing advice for dressing up in cold weather for newcomers)

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