



# Understanding the Link Between Outdoor Play in Early Childhood and Parents' Perceptions of Neighborhood Safety in British Columbia

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# Disclosure Statement

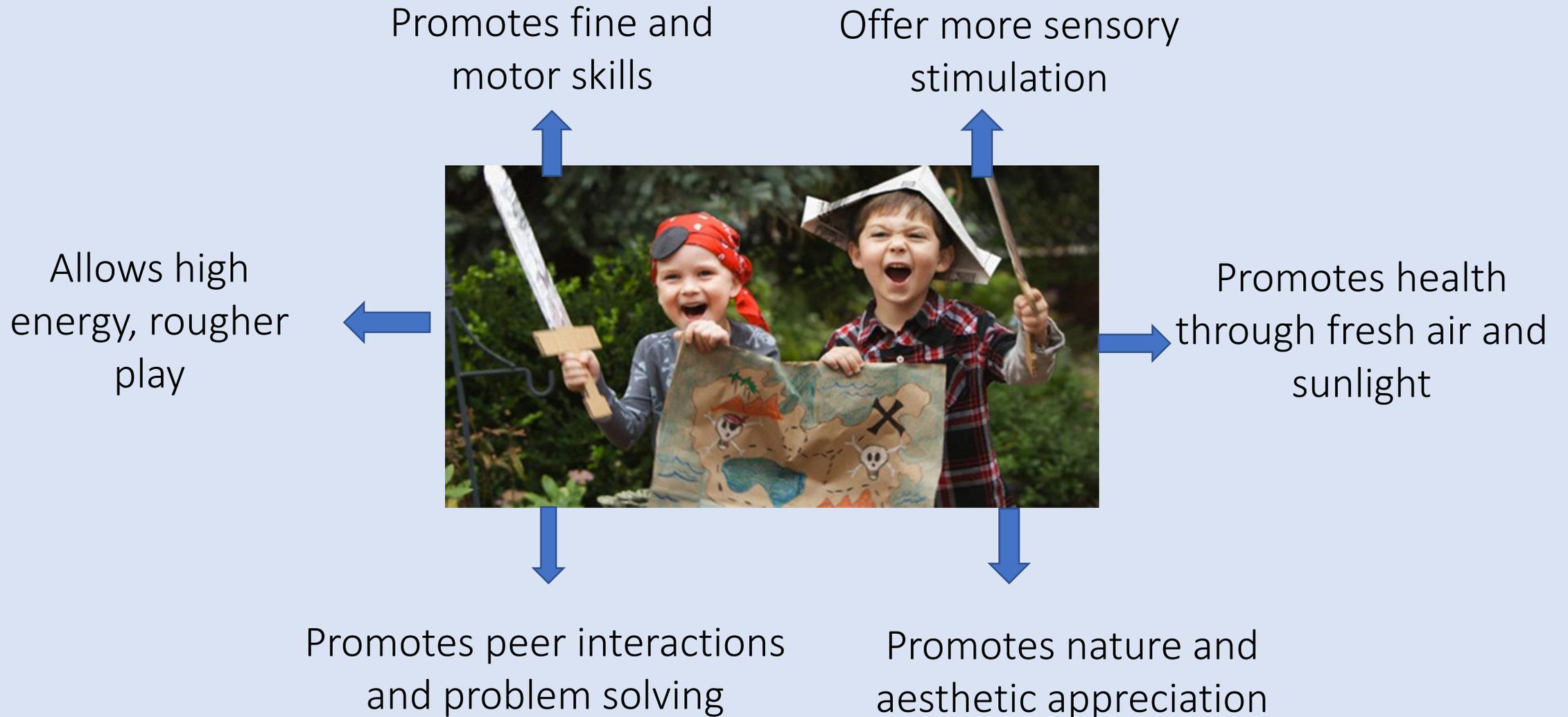
- I have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.

# What is outdoor play?

Unstructured play that allows children to freely explore the natural world around them



# Why is outdoor play important?<sup>1,3</sup>



# Issue: “ Children aren’t playing outdoors as they used to ” <sup>3</sup>

- A recent trend towards more structured activities
- Unstructured time is taken up by sedentary, passive activities
- In the U.S., childhood obesity rates have tripled in 30 years <sup>7</sup>
- In 2008, 30% of children were considered overweight or obese <sup>7</sup>
- Previous studies have found associations between neighborhood socio-economic resources and children’s sedentary and physical activities <sup>5</sup>



# The present study

Parents perceptions of trust  
and safety in the  
neighborhood



Outdoor play in early  
childhood



# Method



The Childhood Experiences Questionnaire

# About the CHEQ

- Completed by parents or guardians at the beginning of Kindergarten in participating schools across BC
- Captures early childhood experiences related to health and wellbeing, language and cognition, social and emotional wellbeing, early learning and care, community and context
- Used to inform district-wide programs and planning
- Used to improve classroom planning and school programming
- **Current study:** 2017 CHEQ, N=1280 children in 80 class rooms in 11 school districts

# Research Items

	Mean (SD)
How safe is your neighborhood? (1-5)	4.26 (0.94)
On average how often did your child play outside in your neighborhood? (1-6)	4.32 (1.64)
In general, can your neighbours be counted on to look out for kids in your neighborhood? (1-2)	1.76 (0.43)
Family income	Under \$20K: 3.4%. \$20K-50K:13.3%, \$50K-\$75K:17.3%, \$100K-\$150k:24% \$150k-\$200K:8.3%, \$200K:5.9%
Language	ESL: 12%, English: 87.4%

# Research question 1

- Is children's outdoor play frequency related to parents' perceptions of neighbourhood safety and the ability to count on neighbours (i.e., trust)?

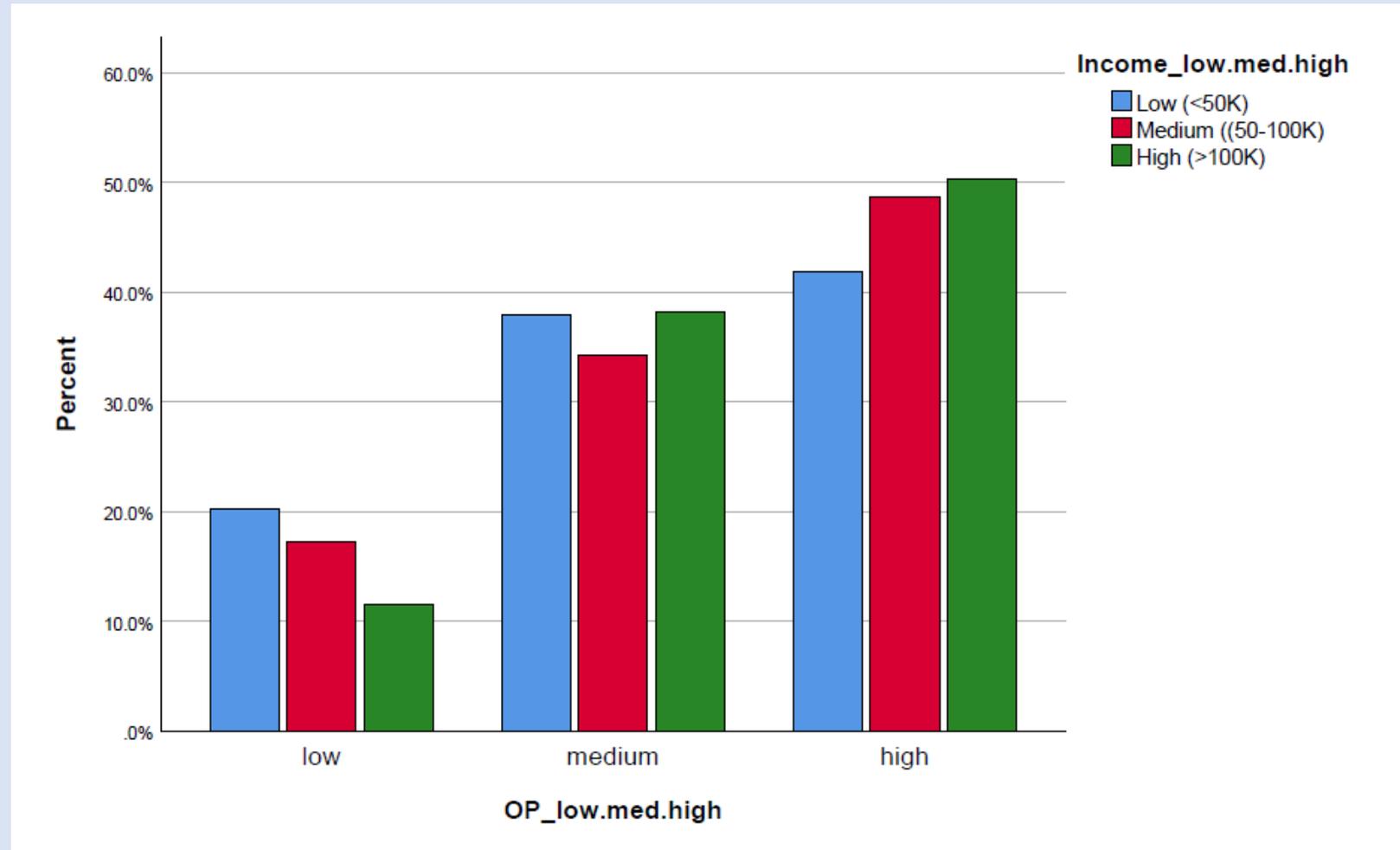


# Intercorrelations between variables

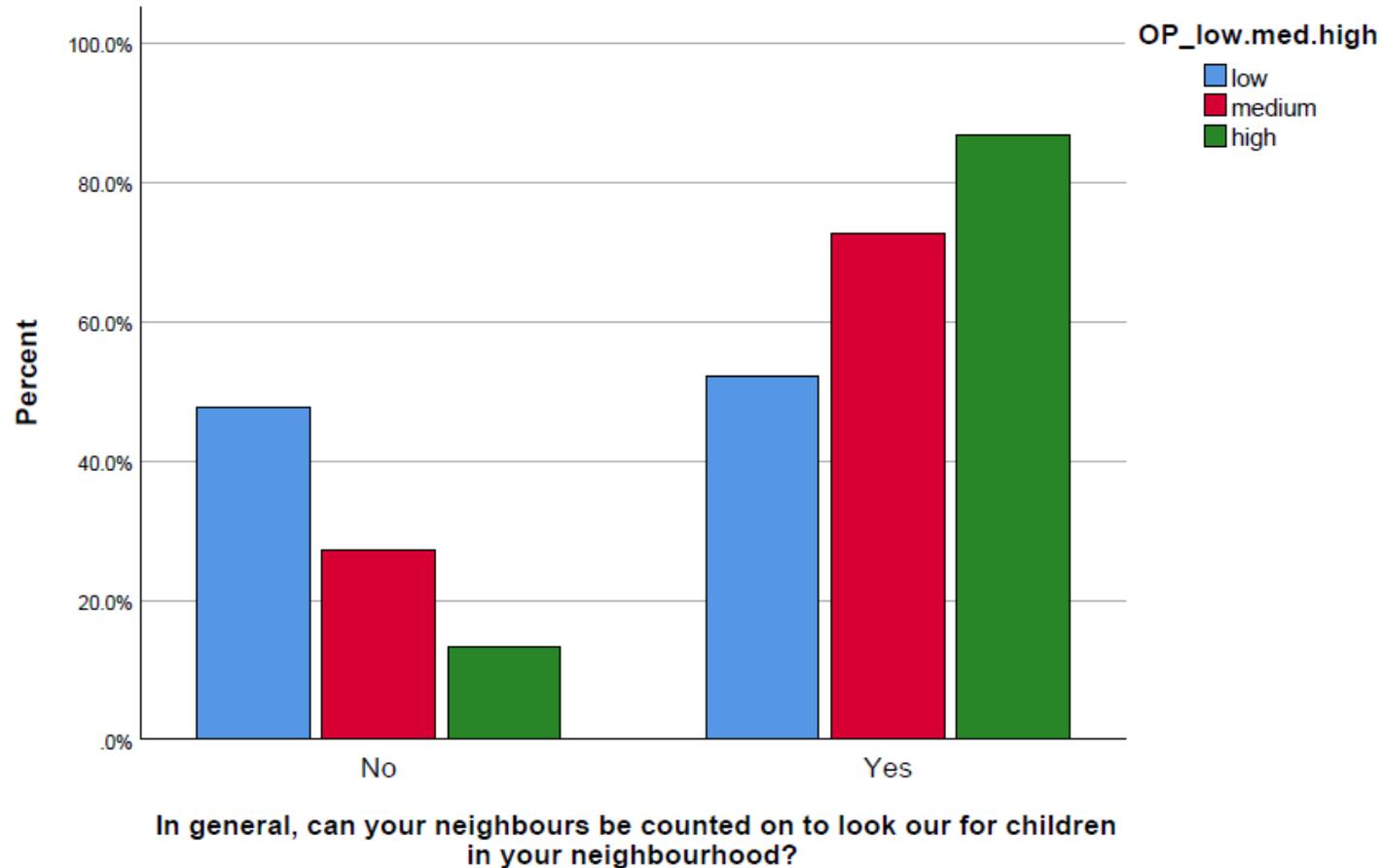
	On average, how often did your child play outside in your neighborhood?	In general, can your neighbors be counted on to look out for your kids in your neighborhood?	Household income
How safe are the parks and places in your neighborhood?	0.111**	0.135**	0.099
On average, how often did your child play outside in your neighborhood?		0.294**	0.055
In general, can your neighbors be counted on to look out for children in your neighborhood?			0.128**

\*\* Correlation is significant at the 0.01 level (2-tailed)

# Outdoor Play Distribution across Household Income



# Outdoor Play Distribution by the Ability to Count on Neighbors to Look Out for the Children



# Research question 2 and 3

- Is there neighbourhood level variability in outdoor play (i.e., variability based on the neighbourhood children live in)?
- Do neighborhood safety and trust in neighbors predict outdoor play frequency over and above controls?

# Multilevel modeling

Comparison of 2 models:

- 1. Unconditional model → does outdoor play vary across neighborhoods?**
  1. Only data from neighbourhoods with at least 10 children were included (N = 1131 children in n = 52 neighbourhoods)
  2. There was 5.1% of shared variability in outdoor play based on the neighbourhood in which children lived (ICC = .051)
- 2. Full model → What individual and neighborhood level variables predict children's outdoor play?**

# Individual and neighborhood level variables predicting outdoor play

Parameter	Estimate	Beta significance
Intercept	-.445	0.660
Family income	-.002	0.944
English vs ESL	-.446	0.008*
Neighborhood safety	.079	0.171
Neighborhood trust	.937	0.000*
Aggregated neighborhood safety	.328	0.089*
Aggregated neighborhood trust	1.082	0.012*

After adding neighbourhood safety and trust in neighbours as predictors in full model, this variability was reduced to 0.03% (ICC = .0003).

# Discussion

- Parents perceptions of neighborhood safety and trust in neighbors played a role in how often their children played outdoors
- Individual trust as well as neighbourhood-wide trust in neighbours were independently related to outdoor play → neighbourhood cohesion matters!
- English language background (indicator of ethnicity and cultural background) played a role in outdoor play
- Further research needs to investigate other factors that influence outdoor play (e.g., urban versus rural, built environment, children's age).

*Thank you!*

# Selected references

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