Study suggests traditional playgrounds contribute to childhood obesity [1]

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EXCERPTS

Video games, the Internet and fast food take a lot of the blame for childhood obesity, but there's growing evidence for an unlikely addition to the list of usual suspects: The school playground.

For decades, schools have chopped down trees and replaced them with asphalt, monkey bars and basketball nets all in the belief that it would encourage exercise and make kids happier, but a growing body of research suggests the opposite is true.

In the fall, researchers at the University of Western Ontario will resume a study in which they plant global positioning systems on elementary school children in London, Ont., in an effort to understand how their environment influences their activity levels.

The study, which is in its first phases, is the largest of its kind in Canada and will explore factors at school and in the surrounding community. The goal is to help researchers understand how playsets can be intimidating, why some kids who live only a kilometre away get a ride to school every day and how to make changes that encourage a healthy lifestyle.

Climbing childhood obesity rates - Statistics Canada says about one-in-four Canadian school-aged children are overweight - as well as evidence that exercise and greenery can be a boon to student learning and have helped fuel interest in building exercise-friendly spaces for children.

But change in the schoolyard - which is supposed to foster an active break from indoor lessons - is likely to be slow, with outdoor spaces low on the priority list in an era of budget crunches and crumbling infrastructure.

Most Canadian school playgrounds are built in the if-you-build-it-they-will-play tradition of schoolyard architecture: Flat, barren expanses of asphalt with little seating, less shade, and one monolithic metal play structure.

During recess time in the spring there's no shade, and in winter, "half the school population is waiting for it to end, plastered against the door," said Cam Collyer, program director for Evergreen, a national charity that has rebuilt nearly 3,000 playgrounds.

He said that for many years, playground design amounted to picking a gym set out of a catalogue.

"It's been done one way for a long time, it's like a bad habit."

Although some school boards have begun working with Evergreen, some community groups are taking matters into their own hands, funding changes to playgrounds through grants and bake sales.

Evergreen designers replace concrete with winding pathways, stone artwork, diverse but robust greenery and open-ended play elements like wood posts. The charity has 18 designers across the country, and Mr. Collyer said "their dance cards are full."

Until recently, the number of playgrounds in a neighbourhood was assumed to have a correlation with the activity levels of its youngest residents, said Jason Gilliland, director of the University of Western Ontario's Urban Development Program, and leader of the GPS study.

By tracking school children with GPS, Dr. Gilliland and his colleagues are using data to turn that assumption on its head. GPS data have helped researchers discover that some kids won't use the jungle gym because the older kids are monopolizing it, and that tree-lined streets make a child more likely to walk to school because they feel more shielded from traffic.

"Cities and policy makers are clamouring for this kind of information," he said.

One of his PhD students, Janet Loebach, started a pilot project with 80 London children last school year. For one week in the winter and again in the spring, students in Grades 5 through 8 wore a GPS around their necks, an activity-tracking accelerometre around their waists, and recorded their activities in a diary.

Preliminary data show students huddled in the shade of school buildings, very little after-school use of the playgrounds and not enough time being active to generate any health benefits.

Ms. Loebach expected to see the students spending more time outdoors in the spring than in the winter, and she was surprised to find that regardless of the season, about two-thirds of the kids were nearly always indoors.

"We tend to think as adults that because we used to be kids, we understand their experience but we really don't," she said.

Ms. Loebach will follow up this fall with the students she tracked last spring, and over the next three years, the researchers will follow 1,200 children in 60 schools across southwestern Ontario. The participants will be tracked for one week in the spring, and one week the following fall. In addition to comparing students who change schools over the summer to those who stay put, Dr. Gilliland's team will also track air quality and compare the activity levels of children in rural, small town, urban and suburban settings.

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Region: Canada [2]
Tags: health [3]
child development [4]
physical environment [5]
outcomes [6]
