

# Nature may ease ADHD symptoms

TRALEE PEARCE

Globe and Mail Update

October 17, 2008 at 9:53 AM EDT

Most adults know the restorative benefits of taking a walk among the trees.

But new research suggests that a nature stroll can also improve the attention span of children with attention-deficit hyperactivity disorder.

Researchers at the University of Illinois found that children with ADHD showed greater focus immediately after a 20-minute walk in a park than after a similar walk in a neighbourhood or downtown area.

Frances Kuo, one of the co-authors of the study, said the research builds on her previous work that found green walks for children in general improved both their attention and their impulse control - two of the chief issues in ADHD children.

After conducting two surveys of parents about the after-school and weekend activities that seemed to ease their children's ADHD symptoms, Dr. Kuo and Andrea Faber Taylor zeroed in on the seemingly positive effects of walking outdoors.

"We thought maybe this is real, and the parents aren't just hallucinating," said Dr. Kuo, an environmental psychologist.

The children, who were unmedicated at the time of the testing, were each taken on three different walks. After the walks they were given a neurocognitive test called the Digit Span Backwards, in which they were told a series of numbers and asked to repeat them backward.

After the green walks, the 17 children who participated in the study did "shockingly better in general," Dr. Kuo said. The children, between the ages of 7 and 12, appeared to catch up with their non-ADHD peers in the moments after the walk.

Dr. Kuo said she doesn't know whether it's the greenness of the park, the lack of buildings or some other mechanism at work, but she speculates that the natural environment gives kids with ADHD a chance to recharge their attention spans without any effort.

"[This study] is just a small piece of evidence," she said. "We can't say this exposure to nature completely erased ADHD symptoms - but that's our best guess at this point.

She added that studies have shown that inner-city children suffer from ADHD at about three times the rate of children in rural areas.

Umesh Jain, a child psychiatrist at Toronto's Centre for Addiction and Mental Health, calls the psychological boost most people get in nature "the Muskoka effect." The benefits, he said, could include a sense of grounding, and - possibly more relevant to kids with ADHD - a sense of freedom from containment.

Vikram Dua, a child and adolescent psychiatrist at BC Children's Hospital, said the small size and narrow design of Dr. Kuo's study precludes making any generalization about the implications for ADHD.

"At the same time, the principles are something I would support," said Dr. Dua, also an assistant clinical professor at the University of British Columbia. "You want the kids out there in the green parks."

Dr. Jian agreed, saying the study is too preliminary to suggest an ADHD treatment application. But, he said, other studies have shown, "What's good for ADHD children is good for all kids."

Dr. Kuo said the next step is a randomized clinical trial to test the effect. She is especially interested in testing "around the margins" with children for whom ADHD medications work poorly or not at all.

Parents of children with or without ADHD might consider adding a walk to pre-homework routines, since there is really no downside, Dr. Kuo said. "We're pretty sure going outside is not terribly risky."