

#ResearchAtHorizon: Bikes N' Trikes program gives N.B. youth with neuro disorders freedom to play

For many New Brunswick youth, the arrival of spring means going outside to play – and riding a bike is one of the most popular outdoor activities.

However, commercially available bikes and trikes may not meet the unique needs of children and youth with neurological diagnoses, such as cerebral palsy, epilepsy, or spina bifida.

A Horizon program unlike any other in Canada aims to change that, making it possible for these kids to spend time outside being active with their friends and families.

Bikes N' Trikes began at Horizon's Stan Cassidy Centre for Rehabilitation in 2012 and continues with the support of the Stan Cassidy Foundation.

The innovative program adapts bikes for its young patients free of charge. Because these bikes are very expensive to adapt, and because families can keep them, the program removes a significant financial barrier.

Tracy Ferguson, a physiotherapist with the Pediatric Neuromotor Team at the Stan Cassidy Centre for the past 10 years oversees the program.

After running the program for several years, she was curious to better understand how the program may be helping to improve her patients' and their families' physical



Tracy Ferguson, physiotherapist at Horizon's Stan Cassidy Centre for Rehabilitation, and Dr. Natasha Hanson, manager for the SOAR Team in Research Services, make their successful case to the Patients' Den on May 10, 2018.

and mental health and social relationships ultimately leading to better quality of life. She soon learned few others have studied programs like *Bikes N' Trikes*, creating a unique chance for her to collect evidence and further shape the care physiotherapists provide.

To build her project, *Investigating the impact of adapted bikes or trikes on the quality of life of children and youth with neuromotor disabilities*,



Tracy Ferguson, physiotherapist at the Stan Cassidy Centre for Rehabilitation, receives her award at the Patients' Den from one of the patient advisor panellists, Kevin Standing.

Tracy successfully applied to Horizon's Research Services' SOAR team, who provided her with dedicated research support.

Then, to access funding to support interviewing past program participants and their families, Tracy and SOAR team manager, Dr. Natasha Hanson made a pitch at the *Patients' Den*. Held on May 10, 2018, the *Patients' Den* was organized by the University of New Brunswick's Primary and Integrated Healthcare Innovations Network, and had a panel of eight patient advisors judge teams' pitches. With their strong presentation, Tracy and Natasha were one of three successful teams to receive \$5,000 in funding.

Almost a year later, preliminary interview data suggests having access to adapted bikes and trikes has had a positive impact on the quality of life of children with disabilities, as well as a means of increased socialization and leisure.

Tracy is now looking ahead to September, where she will share this unique program's outcomes at the American Academy for Cerebral Palsy and Developmental Medicine's 73rd annual meeting in California.

The Research Team included:

- Tracy Ferguson, Pediatric Physiotherapist, Stan Cassidy Centre for Rehabilitation
- Dr. Natasha Hanson, Team Manager, SOAR Team, Research Services
- Rankyn Campbell, Research Assistant, Stan Cassidy Centre for Rehabilitation

The Bikes N' Trikes Program would not be possible without the support of generous donations to the Stan Cassidy Foundation. This research is also made possible by Horizon's Support Opportunities and Assistance for Research (SOAR) Program, and the Patients' Den research funding competition.



Owen Aucoin, a patient at the Stan Cassidy Centre, gives a thumbs up to one of the custom-made bikes.

*A version of this article appeared on the Stan Cassidy Foundation's blog.