

Investigating the impact of adapted bikes or trikes on the quality of life of children and youth with neuromotor disabilities



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Background

The participation in leisure activities is recognized internationally as a health outcome and an important contributor to improving quality of life (QOL) for children and youth with physical disabilities. Children with disabilities face multiple barriers, which can combine to negatively impact their participation in recreational opportunities. A program out of a tertiary care center facilitates children with Cerebral Palsy and other neuromotor disabilities obtaining adapted bikes or trikes, at no cost to the families. Research pertaining to QOL outcomes in this therapeutic area is currently lacking; thus, this research study is an important contribution towards bridging this gap in the literature and informing clinical practice.

Objectives and Study Design

- To research the lived experiences of those children with neurological disabilities and their parents regarding leisure activities.
- To investigate whether access to a bike or trike made an impact on these lived experiences and their quality of life.
- The study design was a qualitative phenomenological study with purposive sampling.



Study Participants

- 9 families participated in the research interviews; 4 children/youth and 9 parents.
- 3 family interviews were conducted in French.
- Children/youth age when in the program ranged from 5 to 20; 5 were boys and 4 were girls.
- Children/youth had diagnoses ranging from Cerebral Palsy GMSCS levels I to IV, Spinal Muscular Atrophy, chromosomal abnormalities and seizure disorders.

Results

Thematic analysis of the qualitative data has found that for parents the predominant themes were:

Biking as a social activity

"So it gets him out into the community here...Being able to be out and go back by, then they [the neighbourhood children] come out to see us and it has led to things like going back for a bonfire and wiener roast and stuff like that."

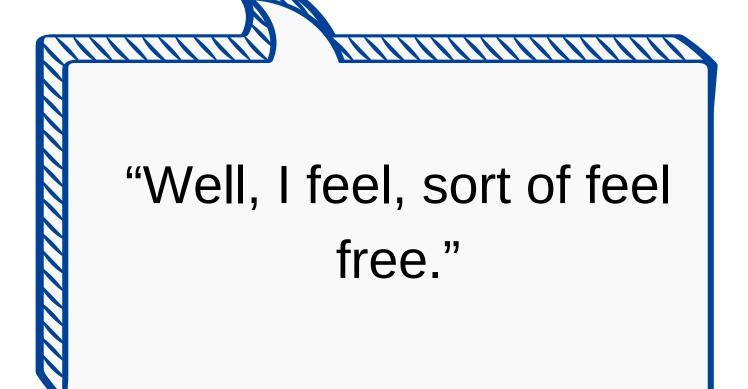
"...when she is in a crabby mood she punches, hits and screams. You can't get her out of it. She can't talk so we don't know sometimes...when she would start getting in those moods, we would take her out in the bike and change her mind. She comes back in a way better mood and she sleeps better. It is just win win all over the place."

Biking as a positive impact on mood and independence.

The main theme from the children/youth interviews was

Biking is "a lot of fun."

"...I really liked it, I have some friends that live nearby and they really liked using it too."



The two main themes regarding the Bikes N Trikes program were:

Need for increased knowledge

"I think [parents and] kids should know more about it a lot sooner...because I think it's great that you have things like that...to make kids like him or other kids with disabilities fit in." Not able to afford the bikes without it

"People just can't afford the specialized equipment."

Conclusions

- This research suggests access to adapted bikes and trikes has a positive impact on the quality of life of children with disabilities and their families.
- Bikes and trikes can provide a means of increased socialization and leisure activity.
- The removal of the economic and educational barriers parents face in order to get access to bikes and trikes is critical.



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