

Shared traffic zones may pose potential barrier to people with disabilities

September 12 2018



Credit: CC0 Public Domain

People with intellectual disabilities or autism may be reluctant to use shared traffic zones in the community, new research led by Curtin University has found.

The research, published in the journal *PLOS ONE*, found that most of

the people in the trial felt shared zones may pose a potential barrier to community participation, and instead felt more comfortable using zebra crossings when interacting with motor vehicles.

This research is part of a global trial undertaken in Sweden and Australia, where both objective eye tracking and subjective measurements including viewpoints, were used to measure the impact of shared zones for people with [disabilities](#), funded by the Swedish Road Administration.

Project leader and Dean of Research, Professor Torbjorn Falkmer, from the Faculty of Health Sciences at Curtin University, said there was an increasing focus nationally and internationally on the promotion of active travel, including walking and cycling, through the use of urban spaces, such as shared zones.

"Shared zones are characterised by an absence of traditional markers that segregate the road and footpath, and offer a unique traffic management solution, which is reported to reduce traffic speed while maintaining traffic flow, increasing driver attentiveness and improving safety for all road users," Professor Falkmer said.

"However, pedestrians with [cognitive disabilities](#) might be at risk of injury in them compared to other users, as shared zones require non-verbal communication strategies, such as eye contact and gestures.

"Our research aimed to identify and explore the viewpoints of the selected individuals in this trial, both with and without [intellectual disabilities](#), and autism, on shared [zones](#) and zebra crossings across Western Australia, by using a DesignQ method, which utilises both inductive and deductive approaches, in order to explore an individual's particular viewpoint on a subject.

"Out of 62 participants who were involved in the exercise, we found that 39 participants, which included 15 adults with autism and six adults with intellectual disabilities, were confident users in both the shared zone and on the zebra crossing. An additional 12 participants, which included four adults with autism and six adults with intellectual disabilities, knew how to operate in a shared zone and on a zebra crossing, but did not trust drivers to follow the rules."

Professor Falkmer explained that the findings may have important implications for how the urban environment could impact people with cognitive disabilities.

"Future research should explore how pedestrians, specifically those with intellectual disabilities, visually scan and attend to the environment when crossing a zebra crossing or when in a shared zone, to better understand why they are less confident and how they interact with other [road users](#), namely drivers," Professor Falkmer said.

The research was co-authored by researchers from the School of Occupational Therapy, Social Work, and Speech Pathology and the School of Physiotherapy and Exercise Science at Curtin University, and Linkoping University in Sweden.

More information: Robyn Earl et al. Viewpoints of pedestrians with and without cognitive impairment on shared zones and zebra crossings, *PLOS ONE* (2018). [DOI: 10.1371/journal.pone.0203765](https://doi.org/10.1371/journal.pone.0203765)

Provided by Curtin University

Citation: Shared traffic zones may pose potential barrier to people with disabilities (2018, September 12) retrieved 9 May 2024 from <https://medicalxpress.com/news/2018-09-traffic->

[zones-pose-potential-barrier.html](#)

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.