

Making Assistive Technology and Rehabilitation Engineering a Sure Bet

A Survey of Outdoor Electric Powered Wheelchair Driving

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ABSTRACT

When an electric powered wheelchair (EPW) user leaves the confines of their home and ventures into the outdoors, they are confronted with a wide variety of terrain and driving conditions. The basic driving training new EPW users receive is not adequate. Very little research has been done in trying to understand the difficulties EPW user face when driving outdoors. The objective of this study was to provide clinicians and researchers with data on EPW users comfort level when driving in various outdoor conditions to help focus their efforts on areas where users have more difficulty. Thirty one EPW users were surveyed for this study. The top five situations the EPW users were most concerned about were mud, soft sand, ice, driving with one wheel off the ground and rain. Common accidents were: getting stuck due to loss of traction, ran into person in crowded place, and tipping over sideways.

KEYWORDS:

electric powered wheelchair; driving; safety; difficult condition, accident

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