



## **What is the recent published research about mobility scooters?**

### ***Purpose***

To identify and categorize recent published research about mobility scooters in both white (peer-reviewed journals) and grey literature (outside of academic publishing channels such as government websites)

### ***Summary***

- Overall, only limited research regarding mobility scooters exists; however, it appears that research in this area is increasing.
- Thirty-two relevant studies were included in this scoping review. PRISMA guidelines were followed to report the content of the studies, which were categorized according to design and methods used.
- The majority of studies were descriptive and only a few implemented an experimental design with a control group. Therefore, little evidence currently exists regarding mobility scooters.
- The most commonly applied research methods were interventions followed by surveys and retrospective reviews.
- Reported positive outcomes associated with scooter use included increased activity and social participation (e.g. more frequent grocery shopping), improved independence, as well as a decrease in transport costs and required caregiver time.

### ***Possible Applications***

- This scoping review highlights the lack of research in this area while suggesting the use of more representative samples, clear distinction between injurious and non-injurious accidents, and experimental studies investigating scooter training and provision for future research.
- The investigation of social and physical barriers that scooter users are facing and the development of strategies to overcome these challenges might further increase the apparent benefit that mobility scooter use has on activity and social participation.

### ***Research Abstract***

A Scoping Review of Mobility Scooter-Related Research Studies

**Background:** Mobility scooters are three or four-wheeled power mobility devices regularly used by people who have difficulty ambulating. They also differ from power wheelchairs in terms of their driving controls, their turning radius, transfer method and their cost.

**Purpose:** Given their growing popularity and anecdotal concerns around their use, a scoping review was undertaken to identify empirical research about mobility scooters and to analyze their study design and purpose.

**Methods:** Data sources included Medline, Cumulated Index of Allied Health Professions (CINAHL), Embase and PsycINFO. The databases were searched with a variety of medical subject headings in combination with key words. The search was limited to articles published between 2000 and April 2015. Only empirical research that had relevant applications to scooter users was included in the analysis of study design and content. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were used for reporting the review content.

**Results:** Thirty-two studies met the inclusion criteria. Most studies were descriptive in nature and reported information about scooter users' demographics, scooter-related activities and accidents. The most common study design was a pre/post intervention followed by a cross-sectional survey and retrospective review.

**Conclusion:** Despite their increasing use, surprisingly little scooter-related research has been conducted. Given the nature of most of the research in this area, further empirical evidence is needed to develop a better understanding about the frequency and causes of scooter accidents and efficacy of interventions to improve users' skills, mobility and safety.

Mortenson, B., & Kim, J. (2015). A Scoping Review of Mobility Scooter-Related Research Studies. *Journal of Rehabilitation Research and Development*. Submitted May 14th, 2015