

# Research Opportunities in the Area of Driving and Community Mobility for Older Adults

## MeSH TERMS

- automobile driving
- evidence-based practice
- locomotion
- occupational therapy
- research
- transportation

The American Occupational Therapy Association (AOTA) Evidence-Based Practice Project has developed a table summarizing the research opportunities in the area of driving and community mobility for older adults. The table provides an overview of the state of current available evidence on interventions within the scope of occupational therapy practice and is based on the systematic reviews from the AOTA Practice Guidelines Series. Researchers, students, and clinicians can use this information in developing innovative research to answer important questions within the occupational therapy field.

American Occupational Therapy Association. (2016). Research opportunities in the area of driving and community mobility for older adults. *American Journal of Occupational Therapy*, 70, 7004400010. <http://dx.doi.org/10.5014/ajot.2016.704001>

Planning a research project requires consideration of many factors. Level of interest and knowledge in a specific area, access to appropriate populations of participants, support of mentors and other researchers, and funding availability all help determine the focus of a future project. An additional component to be considered is whether adequate, up-to-date research has already been completed on a topic; if sufficient evidence is available in a given core area, this area might not be the best choice for another research project.

The best research topic may be one in which either little research has been done or the research to date is insufficient, inconclusive, or mixed. In addition, when research conducted to date provides a low level of evidence and is of limited quality, additional high-quality research in the area is needed.

The “Research Opportunities Table in the Area of Driving and Community Mobility for Older Adults” provides an overview of the state of current available evidence on interventions within the scope of occupational therapy practice. The table is based on the systematic reviews from the American Occupational Therapy Association’s (AOTA’s) Practice Guidelines Series. The table lists specific interventions and indicates either that the evidence is strong to support the intervention or that moderate, mixed, or few studies support the intervention and therefore it is a priority area for future research. Researchers, students, and clinicians can use this information in developing innovative research to answer important questions within the field of occupational therapy. Please refer to *Occupational Therapy Practice Guidelines for Driving and Community Mobility for Older Adults* (Stav, 2015) and the November/December 2014 issue of the *American Journal of Occupational Therapy* (Golisz, 2014) for more information on the topic area and the systematic review process. To access other research opportunities tables online and search for research opportunities in other practice areas, visit <http://www.aota.org/researchopportunitiesables>.

Researchers are also encouraged to enter their projects into AOTA’s Researcher Database at <http://myaota.aota.org/research/>. This database provides AOTA with information such as relevant clinical settings and populations; *International Classification of Functioning, Disability and Health* level (World

## Research Opportunities Table in the Area of Driving and Community Mobility for Older Adults

Category	Interventions	Strength of Evidence
Person Level		
Education	Combining in-class sessions with individual on-road training can improve driving knowledge and on-road driving performance and greatly reduce unsafe driving actions in specific areas of a road test.	Strong evidence
	Imposing driving restrictions on drivers with declining skills yields safety profiles similar to those of “safe” drivers, good compliance with restrictions, and no incidence of reported traffic violations or crashes.	Area for future research
	CarFit participants are likely to implement one or more adjustments or use advanced technology safety features they learned about within 6 mo of a CarFit event.	Area for future research
Cognitive–perceptual skills	CarFit can improve the likelihood that an older driver will participate in a future course on self-regulatory behaviors.	Area for future research
	Cognitive–perceptual training that involves Useful Field of View can lower at-fault crashes, delay driving cessation, and improve driving performance in clients with stroke and right-hemisphere lesions.	Area for future research
	Video-based hazard perception training can reduce the latency of hazard perception ability in older drivers.	Area for future research
	Computer-based cognitive speed of processing training on a driving simulator can improve response times and on-road performance.	Area for future research
Physical fitness	Use of the Dynavision™ Light Training Board can improve on-road driving performance on a standardized on-road driving assessment of drivers after stroke.	Area for future research
	Physical fitness can improve the driving skills and reduce crash risk of older adults.	Area for future research
Simulator training	A 15-hr program of standardized driver simulation training can improve on-road driving performance in people with stroke.	Area for future research
	Active personalized feedback during videotaped simulated driving performance can improve identification of peripheral hazards, receptiveness to changing driving behaviors, and performance of secondary looks during real-world driving.	Area for future research
On-road training	On-road training combined with a classroom session can increase real-world driving performance.	Strong evidence
	On-road and classroom training of drivers with stroke can improve driving performance.	Area for future research
Community Level		
Licensure policy	Geographic licensing restrictions can reduce moving violations, crashes, and fatalities.	Area for future research
Driving cessation	Driving cessation group intervention for caregivers of people with dementia can reduce depression, improve self-efficacy and communication, improve acceptance of circumstances and quality of life, optimize mobility, and better prepare the driver and caregiver for cessation of driving.	Area for future research
Community mobility	An education program to inform participants about mobility transition choices and features can increase their knowledge of community mobility options.	Area for future research
	Group transit training can increase bus use by older adults but may not reduce days of automobile driving.	Area for future research
Walkable communities	Living in walkable neighborhoods can reduce driving and increase walking.	Area for future research
Automobile Modification		
High tech	Education in the use of countermeasures such as blind spot detection, lane departure warning, and driver-state monitoring can assist with driving.	Area for future research
	Use of complex auditory navigation systems may decrease safety.	Area for future research
Low tech	Postural support aids can improve driving performance and reduce exertion during driving.	Area for future research
	Hand controls do not present a higher task demand for older adults.	Area for future research
	An embedded warning signal (compared with conventional rear brake lights) can improve brake response times.	Area for future research

Health Organization, 2001); funder (if any); and key words to help guide research advocacy and policy initiatives. ▲

### Acknowledgments

This work is based on the November/December 2014 issue of the *American Journal of Occupational Therapy* (Golisz, 2014) and the *Occupational Therapy Practice Guidelines for Driving and Community Mobility for Older Adults* (Stav, 2015), developed in collaboration with the AOTA Evidence-Based Practice Project.

### References

- Golisz, K. (Ed.). (2014). Occupational therapy and driving and community mobility for older adults [Special issue]. *American Journal of Occupational Therapy*, 68(6).
- Stav, W. (2015). *Occupational therapy practice guidelines for driving and community mobility for older adults*. Bethesda, MD: AOTA Press.
- World Health Organization. (2001). *International classification of functioning, disability and health*. Geneva: Author.