Research Opportunities in the Area of Adults With Stroke

MeSH TERMS
- evidence-based practice
- occupational therapy
- research
- stroke
- treatment outcome

The American Occupational Therapy Association (AOTA) Evidence-Based Practice Project has developed a table summarizing the research opportunities on adults with stroke. 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 Evidence-Based Practice Guidelines Series. Researchers, students, and clinicians can use this information in developing innovative research to answer important questions within the occupational therapy field.

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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 Adults With Stoke" 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) Occupational Therapy 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. Please refer to *Occupational Therapy Practice Guidelines for Adults With Stroke* (Wolf & Nilsen, 2015) and the January/February 2015 issue of the *American Journal of Occupational Therapy* (Gillen, 2015) for more information on the topic area and the systematic review process.

This table also is posted online for researchers to use to inform the occupational therapy community about their work. The table is linked to Google Drive and offers a place for researchers to include information on interest in initiating research, describe recently completed and ongoing research, and share clinical data. It is hoped that this information will make the research planning process easier, minimize duplication of research efforts, and stimulate discussions among researchers with similar interests, which can then facilitate the creation of research networks and multisite studies. Researchers, students, and clinicians can use this information in developing innovative research to answer important questions within the occupational therapy field. To add current or ongoing research to the table, visit **http://www.aota.org/researchopportunitiestables**.

Researchers are also encouraged to enter their projects into AOTA's Researcher Database at **http://myaota.aota.org/research/**. This database provides

Research Opportunities Table in the Area of Adults With Stroke

Category	Specific Intervention	Strength of Evidence
Interventions to improve occupational performance of people with cognitive impairments	Visual scanning training to improve performance	Strong evidence
	Cognitive strategy training to improve performance on trained and untrained tasks	Area for future research
	Strategy training for people with memory deficits	Area for future research
	Computerized memory programs to improve memory performance and occupational performance	Area for future research
	Time pressure management to improve speed in daily task performance for people with mental slowness	Area for future research
	Compensatory training interventions to improve occupational performance in people with visual dysfunction	Area for future research
	Individualized home rehabilitation program to improve cognitive function	Area for future research
	Prism adaptation to enhance functional measures (including wheelchair mobility) and nonfunctional measures of unilateral spatial neglect	Area for future research
	Mirror therapy to improve occupational performance in people with unilateral spatial neglect	Area for future research
	Right half-field eye patching to improve occupational performance in people with unilateral spatial neglect	Area for future research
	Spatial cueing to improve wheelchair use for those with unilateral spatial neglect	Area for future research
Interventions to improve occupational performance of people with motor impairments	Repetitive task practice to improve UE function, balance and mobility, and activity and participation	Strong evidence
	CIMT or mCIMT to improve UE function and activity and participation	Strong evidence
	Strengthening and exercise to improve UE function, balance and mobility, and activity and participation	Strong evidence
	Bilateral training to improve UE function and activity and participation	Area for future research
	VR to improve UE function and activity and participation	Area for future research
	Mental practice to improve UE function, balance and mobility, and activity and participation	Area for future research
	Mirror therapy to improve UE function and activity and participation	Area for future research
	Action observation to improve UE function	Area for future research
	Electrical stimulation to improve UE function and activity and participation	Area for future research
	Telerehabilitation to augment the delivery of functionally based training programs	Area for future research
	Robotics to improve UE function or activity and participation	Area for future research
	Shoulder supports to improve balance and mobility	Area for future research
	Positioning devices, orthoses, and stretching to improve UE function and activity and participation	Area for future research
	Botulinum toxin A combined with therapy interventions to improve UE function or activity and participation	Area for future research
	Brain stimulation in addition to therapy to improve UE function and activity and participation	Area for future research
Interventions to improve occupational performance of people with psychosocial or emotional impairments	Behavioral therapy to reduce depression and improve other psychosocial outcomes	Area for future research
	Multicomponent exercise program (e.g., strength and balance training) to improve psychosocial outcomes	Area for future research
	Care support and coordination to improve psychosocial outcomes	Area for future research
	Community-based rehabilitation to improve psychosocial outcomes	Area for future research
Interventions to improve ADLs and IADLs	Home-based occupation-based interventions to improve ADL performance	Strong evidence
	Community-based occupational therapy interventions to improve ADL performance for older adults (age ≥65 yr)	Strong evidence
	Activity- and occupation-based interventions to increase participation in leisure activity	Strong evidence
	Occupation-based interventions to improve ADL performance in the patient setting	Area for future research
	VR task simulation to improve UE function and performance	Area for future research
	Rehabilitation program targeting sexual function to improve frequency of participation in and satisfaction with sexual activity	Area for future research
	Community mobility program to increase participation outside of the home	Area for future research

(*Continued*)

Research Opportunities Table in the Area of Adults With Stroke (*cont.*)

Category	Specific Intervention	Strength of Evidence
	Driving simulation training to improve driving participation	Area for future research
	Occupation-based interventions to improve ADL performance in outpatient settings	Area for future research
	Community interventions to improve IADL performance	Area for future research
	VR to improve performance of street crossing tasks	Area for future research
	Wheelchair skills program to improve wheelchair performance	Area for future research
	Activity- and occupation-based interventions to improve social participation	Area for future research
	Exercise and education program to improve reintegration and quality of life	Area for future research
	Hospital-based VR program to improve executive functioning and multitasking during IADLs	Area for future research
	VR program to improve community mobility skills	Area for future research
	Tai Chi to improve quality of sleep	Area for future research

Note. ADL = activity of daily living; CIMT = constraint-induced movement therapy; IADL = instrumental activity of daily living; mCIMT = modified constraint-induced movement therapy; UE = upper extremity; VR = virtual reality.

AOTA with information such as relevant clinical settings and populations; *International Classification of Functioning, Disability and Health* level (World Health Organization, 2001); funder (if any); and key words to help guide research advocacy and policy initiatives. ▲

Acknowledgments

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References

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