



AOTA Evidence Briefs

Older Adults

**A product of the American Occupational Therapy Association's Evidence-Based Literature Review Project*

OA#8

Planned walking and conversation may increase the communication ability of Alzheimer's patients

Friedman, R., & Tappen, R. M. (1991). The effect of planned walking on communication in Alzheimer's disease. *Journal of the American Geriatrics Society, 39*, 650–654.

Level: IB2b

Randomized control trial, less than 20 participants per condition, moderate internal validity, moderate external validity

Why research this topic?

Alzheimer's disease affects a patient's ability to send and receive information. However, clinical observation and preliminary research suggest that some ability to communicate remains and it might be enhanced through behavioral strategies.

What did the researchers do?

Friedman and Tappen (1991), from Barry University (Miami, Florida) and the University of Miami (Florida), respectively, designed a study to determine whether planned walking would improve the communication ability of patients with moderate to severe Alzheimer's disease.

The participants in the study were 30 patients of two nursing homes that were similar in patient-staff ratio and treatment program. All the patients had been diagnosed with probable Alzheimer's disease, had moderate to severe cognitive impairment, and had been under treatment for at least 2 years before entering a nursing home. Seventeen of the patients were men, 13 were women. Their average age was 72.8 years.

The researchers randomly assigned the patients to one of two groups: planned walking or conversation only. In the planned walking group, each participant walked with the primary investigator on the grounds of the nursing home for 30 minutes three times a week for 10 weeks. While walking, the participant and the investigator engaged in conversation on topics that had relevance for the participant sometime in his or her life.

In the conversation-only group, each participant engaged in conversation with the primary investigator for 30 minutes three times a week for 10 weeks. These participants did not walk, however.

The researchers were interested in *communication performance* (as measured by the Communication Assessment Scale for the Cognitively Impaired and the Communication Observation Scale for the Cognitively Impaired).

Assessments were made before the study began and after it ended.

What did the researchers find?

From before to after the intervention, the scores of the planned walking group increased significantly over those of the conversation-only group on the Communication Observation Scale. The difference between the two groups on the Communication Assessment Scale nearly reached significance.

What do the findings mean?

For therapists and other providers, the findings suggest that a planned walking program that includes client-centered conversation can improve the communication ability of Alzheimer's patients. The intervention is simple and cost-effective.

What are the study's limitations?

The study has three limitations. First, the researchers did not randomly select the participants. Thus the findings may not be generalizable beyond the participants, the setting, and the type of professional involved. Second, the researchers did not include a no-treatment group. Thus all the variables were not controlled. Third, the primary investigator delivered the treatment to both groups. She knew the study's hypothesis and thus may have unconsciously influenced the results.

Glossary

significance (or significant)—A statistical term, this refers to the probability that the results obtained in the study are not due to chance, but to some other factor (such as the treatment of interest). A significant result is one that is likely to be generalizable to populations outside the study.

Significance should not be confused with clinical effect. A study can be statistically significant without having a very large clinical effect on the sample. For example, a study that examines the effect of a treatment on a client's ability to walk may report that the participants in the treatment group were able to walk significantly longer distances than the control. However, if you read the study you may find that the treatment group was able to walk, on average, 6 feet, while the control group was able to walk, on average, 5 feet. While the outcome may be statistically significant, a clinician may not feel that a 1-foot increase will make his or her client functional.

■ Terminology used in this document is based on two systems of classification current at the time the evidence-based literature reviews were completed: *Uniform Terminology for Occupational Therapy Practice—Third Edition* (AOTA, 1994) and *International Classification of Functioning, Disability and Health (ICIDH-2)* (World Health Organization [WHO], 1999). More recently, the *Uniform Terminology* document was replaced by *Occupational Therapy Practice Framework: Domain and Process* (AOTA, 2002), and modifications to *ICIDH-2* were finalized in the *International Classification of Functioning, Disability and Health* (WHO, 2001).

This work is based on the evidence-based literature review completed by Mary Law, PhD, OT(C), Debra Stewart, BSc, MSc, and Brenda McGibbon Lammi, BPHE, BHSc (OT), MSc.

For more information about the Evidence-Based Literature Review Project, contact the Practice Department at the American Occupational Therapy Association, 301-652-6611, x 2040.

