OA 8

AOTA Evidence Briefs

Older Adults

Structured Abstracts

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

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

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

LEVEL OF EVIDENCE: IB2b
Randomized control trial, n=20 per condition, moderate internal validity (attempt to control for lack of randomization), moderate external validity (between high and low)

RESEARCH OBJECTIVE/QUESTION
To determine if planned walking has the capacity to improve the communication performance of patients with moderate to severe Alzheimer's disease.

DESIGN

X	RCT		Single Case		Case Control
	Cohort		Before-After		Cross Sectional

non-blinded, 2 group

SAMPLING PROCEDURE

	Random		Consecutive
	Controlled	X	Convenience

SAMPLE

N=30 (15/group)	M age=72.8 years	Male=17	Ethnicity= white (born in US)	Female=13

PARTICIPANT CHARACTERISTICS

Subjects all met National Institute of Neurological and Communicative Disorders and Stroke (NINCDS) and the Alzheimer's Disease and Related Disorders Association (ADRDA) diagnostic criteria for probable Alzheimer's

- All had mini mental status of <19
- All were under treatment for Alzheimer's for at least 2 years before institutionalization
- All ≥ 60 years old.
- All were mobile with some verbal ability.

MEDICAL DIAGNOSIS/CLINICAL DISORDER
Probable Alzheimer's
Senile dementia of the Alzheimer's type (SDAT)

OT TREATMENT DIAGNOSIS
NR = Not Reported

OUTCOMES

AREA	OT TERMINOLOGY	ICIDH-2	MEASURE	FREQUENCY	RELIABILITY/ VALIDITY
Communication performance	Performance areas	Activity limitations	Communication assessment scale for the cognitively (CAS) impaired	• Week before intervention • Week 10 of intervention	Interator reliability=.93 Chronbach's alpha A=.92
Communication performance Verbal/non-verbal communication	Performance areas	Activity limitations	Communication observation scale (COS) for the cognitively impaired	Same as above	Interrater reliability=.88 chronbach's alpha A=0.9-14

INTERVENTION
Description
Planned walking while engaging in relevant conversation with the investigator; the control group did no walking.

OT & ICIDH Terminology
Performance areas
Activity limitations

Who Delivered
Investigator

Setting
Two nursing homes

Frequency
30 minutes, three x per week

Duration

10 weeks

RESULTS

STATISTICAL TESTS	STATISTICAL RESULTS	DESCRIPTIVE INFORMATION	SUMMARY OF KEY RESULTS
MANOVA (multiple analysis of variance)	F=4.29, p=0.024 df=2.28		• Significant difference between treatment groups
Univariate f tests	P=007 (COS)		Treatment groups scores increased significantly over control grp. From pre to post on COS but not significant increase on CAS
Power analyses A=.05 Effect size=.40 New research	Power=.79 with 15 subjects in each group		

CONCLUSIONS

For this convenience sample, a planned walking program can improve Alzheimer's patients' ability to communicate.

LIMITATIONS

- Use of nonrandom sample limits generalization of the findings.
- Control of all extraneous variables is unknown because there was not a no-treatment group.

Biases

- The investigator delivered the intervention; possible investigator bias.

- 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.

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