



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

**Functional rehabilitation combined with reactivating occupational therapy is more effective than functional rehabilitation alone in improving cognitive performance, psychosocial functioning, and contentedness for geriatric patients with dementia**

**CITATION:** Bach, D., Bach, M., Bohmer, F., Fruhwald, T., & Grilc, B. (1995). Reactivating occupational therapy: A method to improve cognitive performance in geriatric patients. *Age & Aging, 24*, 222-226.

**LEVEL OF EVIDENCE: IA1b**

Randomized control trial, n=20 per condition, high internal validity: no alternate explanation for outcome, moderate external validity: between high and low

**RESEARCH OBJECTIVE/QUESTION**

To evaluate the extent to which application of both reactivating occupational therapy and functional rehabilitation are more efficient than the application of functional rehabilitation alone on levels of cognitive performance and psychosocial functioning as well as on degrees of contentedness as estimated by ratings of subjective well-being and depression.

**DESIGN**

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

**SAMPLING PROCEDURE**

	Random	X	Consecutive
	Controlled		Convenience

**SAMPLE**

N=44	M age=83.4	Male=5	Ethnicity=unknown	Female=39
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## **PARTICIPANT CHARACTERISTICS**

No one taking neotropic antidepressant or neuroleptic medication  
No subjects displaying psychotic features or affective disorder

## **MEDICAL DIAGNOSIS/CLINICAL DISORDER**

Slight to moderate dementia (DSM III-R)

## **OT TREATMENT DIAGNOSIS**

NR=Not Reported

## **OUTCOMES**

<u>AREA</u>	<u>OT TERMINOLOGY</u>	<u>ICIDH-2</u>	<u>MEASURE</u>	<u>FREQUENCY</u>
Cognitive, affective social, and physical function	Performance components	Impairments	Clinical Assessment Geriatric Scale (SCAG)	Baseline 12 weeks 24 weeks
Severity of depressive symptoms assessment			Hamilton Depression Rating Scale (HAMD)	
Depressive symptom qualification			Depression status inventory (DSI)	
Well-being (subjective)			Scale of well-being (B-S)	
Visual retention			Benton test (BT)	
Acquisition of information and immediate recall			Grunberger Verbal Memory Test (GVG)	
Speed of cognitive performance			Number association test (ZVT-A, ZVT-B)	
Focusing of attention, visual memory, associative power, coordination			Number Symbol Test (ZST)	
Passive			Latent Learning	

acquisition and retention of verbal, visual and motor information			(LL)	
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## INTERVENTION

### Description

Functional Rehabilitation: Functional occupational therapy, physical therapy, and speech therapy

Reactivation Therapy: memory training, manual/creative activities, self-management (themes provided for each session)

### OT & ICDH-2 Terminology

Performance components; Performance areas

### Who Delivered

Occupational therapist

### Setting

Small treatment room

### Frequency

Two times per week for 1 hour

### Duration

24 weeks

## RESULTS

<u>STATISTICAL TESTS</u>	<u>STATISTICAL RESULTS</u>	<u>DESCRIPTIVE INFORMATION</u>	<u>SUMMARY OF KEY RESULTS</u>
Wilcoxon-matched pairs signed-ranks test	GVG, $p < .01$ LL, $p < .001$ ZST, $p < .05$ DSI, $p < .05$		At 24 weeks, both groups showed significant improvement of cognitive performance (GVG, LL), visuomotor coordination (ZST), and depressive symptoms (DSI)
Mann-Whitney U test	ZST, $p < .01$ GVG, $p < .05$ LL, $p < .01$ SCAG, $p < .01$		At 12 weeks, the reactivation group had significantly higher cognitive performance (ZST, GVG, LL) and better symptom scores (SCAG) than

			the functional group.
	ZST, p<.05 GVG, p<.001 LL, p<.001 SGAG, p<.001 HAMD, p<.001 DSI, p<.001 B-S, p<.001 BT, p<.001		At 24 weeks, the reactivation group had significantly better cognitive performance (ZST, GVG, LL), psychosocial functioning, subjective well-being, and depression.

## CONCLUSIONS

The application of a reactivating occupational therapy program in addition to functional rehabilitation is significantly more efficient than functional rehabilitation alone on levels of cognitive performance and psychosocial functioning as well as on the degree of contentedness as reflected in ratings of subjective well-being and depression.

## LIMITATIONS

- A large age range of patients may cause inter- and intra- individual differences during treatment.
  - Elevated scores of depression at baseline may interfere with cognitive performance.
  - Recruitment of patients at  $\leq 2$  weeks after admission for long-term therapy may have influenced baseline ratings.
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- 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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