Supplemental Table 1. Evidence for Interventions Designed to Modify the Activity Demands of the Occupations of Self-Care and Leisure for People With Alzheimer's Disease and Related Dementias

Author/Year	Study Objectives	Level/Design/Participants	Intervention and Outcome Measures	Results	Study Limitations
Cevasco & Grant (2003)	To compare responses to two methods of intervention involving vocal and instrumental music during exercise and exercise with instruments.	Level III 1-group, nonrandomized, incremental exposure *N* = 26 (5 men, 21 women)	*Intervention* Experiment 1: Music and movement sessions with comparison of verbal cueing only at beginning of task vs. continuous cueing throughout task. Experiment 2: Same intervention 1 year after conclusion of first experiment with comparison of exercise to vocal and instrumental music vs. production of instrumental and vocal music during exercise *Outcome Measures* Duration and accuracy of participation in session	Participation increased significantly during both experiments. No significant difference was found between continuous cueing vs. cueing at the beginning of each task. Exercise to instrumental music resulted in significantly higher participation than other configurations.	A small, convenience sample was used. Experimental and measurement procedures were unclear.
Chard, Liu, & Mulholland (2009)	To examine the effectiveness of caregiver training and environmental modifications on the ADL performance of residents with AD in an assisted living facility.	Level III 1-group, prospective, before and after *N* = 5 (all women; age range = 70–89)	*Intervention* After evaluation of performance, redesign of 2 tasks from participants' daily routine for caregivers to provide verbal cues, verbal reinforcement, and environmental modifications to ensure facilitation rather than direction of performance *Outcome Measures* ADL motor and ADL process abilities	All participants experienced significant improvements in ADL ability.	Sample was small and nonrepresentative. The same researcher conducted the task evaluations and implemented the interventions. No follow-up was reported.
Coyne & Hoskins (1997)	To determine the effect of directed verbal prompts and positive reinforcement on the level of eating independence of elderly nursing home residents with dementia.	Level I Randomized, 2-group pretest–posttest *N* = 24 (all women; age range = 68–96, mean age = 84.2)	*Intervention* Directed, standardized verbal prompts at 1-min intervals and positive reinforcement on completing each step of the eating cycle to promote independence in eating during meals in the dining room setting *Outcome Measures* Task performance when eating solids and liquids, frequency of consuming solids and liquids	The experimental group achieved significantly greater independence in on-task performance with solid and liquid foods. No significant difference was noted between groups in frequency of completed task cycles of eating.	Sample was small and nonrepresentative. No follow-up was reported.

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Supplemental Table 1. Evidence for Interventions Designed to Modify the Activity Demands of the Occupations of Self-Care and Leisure for People With Alzheimer's Disease and Related Dementias (*cont.*)

Author/Year	Study Objectives	Level/Design/Participants	Intervention and Outcome Measures	Results	Study Limitations
Dooley & Hinojosa (2004)	To examine the extent to which occupational therapy recommendations increase the quality of life of people with AD and decrease the burden felt by caregivers in the community.	Level I Randomized, 2-group pretest–posttest *N* = 40 with possible or probable AD (16 men, 24 women; mean age = 77) *N* = 40 caregivers (8 men, 32 women)	*Intervention* In-home sessions to explain individualized occupational therapy recommendations for client and caregiver (control caregivers—report of occupational therapy recommendations based on results of baseline measures sent in mail) *Outcome Measures* ADL and IADL function, affect, caregiver quality of life	Caregivers in the treatment group followed 65% of recommended strategies. Comparison of baseline to follow-up indicated a significant difference in quality of life, increased positive affect, and increased independence in self-care of clients.	Inconsistency in caregivers' completion of assessments and follow-through with recommendations may have influenced the accuracy of results. Effects from task modifications or cueing were not reported separately.
Gitlin et al. (2008)	To test whether the Tailored Activity Program reduces dementia-related neuropsychiatric behaviors, promotes activity engagement, and enhances caregiver well-being.	Level I Randomized controlled pilot study *N* = 60 dementia patients (mean age = 79) *N* = 60 caregivers (mean age = 65)	*Intervention* Home visits and telephone contacts for occupational therapy intervention with testing, selection, and customization of activities to match capabilities identified in testing and instruction to caregivers in use of activities *Outcome Measures* Behavioral occurrences, activity engagement, quality of life in dementia patients; objective and subjective burden, skill enhancement in caregivers	Intervention caregivers reported reduced frequency of argumentative, agitated, shadowing, and repetitive questioning behaviors as well as greater activity engagement, including the ability to keep busy. At 4-mo follow-up, intervention caregivers reported fewer hours doing things for patients.	Sample size was small. An attention control was not used. Pilot studies may yield large effect sizes and overestimate treatment benefits. Study relied on caregiver report of behavioral occurrences.
Graff et al. (2006)	To determine the effectiveness of community-based occupational therapy on daily functioning of patients with dementia and the sense of competence of their caregivers.	Level I Single-blind RCT *N* = 135 patients (60 men, 75 women; mean age = 78.1) *N* = 135 caregivers (40 men, 95 women; mean age = 64.1)	*Intervention* In-home occupational therapy sessions to identify activities on which to focus improvement and then to educate clients and caregivers on compensatory (task adaptation and cueing) and environmental strategies to improve ADL performance *Outcome Measures* Daily functioning, caregiver burden	The intervention group showed a significant improvement in functioning in daily activities compared with the control group. At 12-wk follow-up, the intervention group still demonstrated better daily functioning.	Caregivers and therapists were not blinded. Participants were selected from outpatient clinics instead of a variety of settings, which would have given a more representative sample of this population.

Kolanowski, Buettner, Costa, & Litaker (2001)	To test the utility of theory-based activity selection for treating behaviors commonly exhibited by people with dementia.	Level I Randomized crossover $N = 10$ (4 men, 6 women; mean age = 89.4)	*Intervention* Engagement in activities suited to premorbid personality style, interest, and skill level (participants served as their own control; control activities were selected from those opposite to participants' style of interest) *Outcome Measures* Positive and negative moods, agitation, cognitive function, physical ability and dependence	Displays of positive affect were significantly higher during treatment, but no significant difference was found in displays of negative affect. No significant differences in mood and dementia behaviors were found.	Sample size was small. The premorbid personality style inventory was not tested for people with AD.
Rogers et al. (1999)	To examine the effectiveness of a behavioral rehabilitation intervention for improving the performance of morning-care ADLs of nursing home residents with dementia.	Level III 1-group, 3×3 design $N = 84$ (26 men, 58 women; mean age = 82)	*Intervention* Usual care and a period of naturalistic observation followed by skill elicitation intervention, in turn followed by individualized behavioral interventions for habit training *Outcome Measure* ADL performance	Behavioral rehabilitative care significantly improved ADL participation, increased appropriate requests for help, and decreased disruptive behaviors and assistance needed from caregivers compared with usual care.	Outcome measures were based only on observation. No control group was used.
Spector et al. (2003)	To determine whether cognitive stimulation therapy (CST) improves cognition and quality of life.	Level I RCT, single-blind, multicenter $N = 201$ (43 men, 158 women; mean age = 85.3)	*Intervention* Provision of "reality orientation board" displaying both personal and orientation information used during group sessions to provide continuity between sessions (control group—usual activities without board) *Outcome Measures* Cognition, functional performance, anxiety, depression, quality of life	CST significantly improved cognitive function and quality of life compared with usual activities. No differences in communication, functional ability, anxiety, or depression were noted.	Significant variation existed between centers, and the improvement in cognitive function scores suggests that environmental influence on behavior was not accounted for in baseline measures.
Watson & Green (2006)	To review the nursing literature on interventions used to decrease feeding difficulty in people with AD.	Level I Systematic review $N = 13$ studies	*Interventions* Changes in meal preparation and delivery, addition of music to mealtime, incorporation of verbal prompts, environmental modification	All studies reported positive outcomes and included changes in activity demands (meal presentation and verbal prompts by different carers) as well as environmental changes (use of music and change of dining setting).	Sample sizes were small. Interventions varied across studies. Power analysis was not used. Most studies did not account for confounding variables.

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Author/Year	Study Objectives	Level/Design/Participants	Intervention and Outcome Measures	Results	Study Limitations
			Outcome Measures Participation in mealtime tasks, communication, responsiveness to caregiver, IADLs, weight, agitation, caregiver confidence, time to consume meal		

Note. AD = Alzheimer's disease; ADLs = activities of daily living; IADLs = instrumental activities of daily living; RCT = randomized controlled trial.

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