### Supplemental Table 1. Evidence for Use of Occupations in Interventions With People With Alzheimer’s Disease and Related Dementias

<table>
<thead>
<tr>
<th>Author/Year</th>
<th>Study Objectives</th>
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<th>Intervention and Outcome Measures</th>
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</thead>
</table>
| Altus, Engelman, & Mathews (2002) | To examine the impact of using serving dishes (family-style meals) vs. prepared plates on participation in mealtime | Intervention: Prepared plates changed to serving dishes; praise from certified nursing assistant (CNA)  
Outcome Measures: Participation, communication, praise | Baseline participation of 10% increased to 24% with family-style meals. Training of CNA in offering praise and graduated prompting increased mean to 64%. Communication levels rose from 5.5% to 10.6% to 17.9%. | No condition included prepared plates plus trained CNA interaction; the latter may be the most important variable. |
| Beattie, Algase, & Song (2004) | To determine the effect of the systematic use of a behavioral nursing intervention on mealtime behavior of wanderers | Intervention: Individual, systematic reinforcement of sitting-at-table behavior using communication strategies and systematic stopping of table-leaving behavior over 5 wk  
Outcome Measures: Frequency and duration of table leaving (tally), weight of food eaten, proportion of food and fluid accepted, body weight | All 3 participants showed a significant increase in time sitting at the table, 2 showed a significant decrease in table leaving, and 2 showed a significant increase in food intake. Intake of fluids did not change. No significant difference was found in body weight. | Sample size was small, and the mealtime intervention schedule was nonrandomized. BMI may be a more meaningful measure than weight alone. |
| Boylston, Ryan, Brown, & Westfall (1995) | To determine correlations between changes in diet (food texture) and maintained oral intake and decreases in function | Intervention: Eating and swallowing evaluation and implementation of food texture recommendation of the speech pathologist  
Outcome Measures: Cognition, ADLs and IADLs performance, weight, diet texture | After intervention, a significant difference was found in IADL and diet outcomes. As function declined, patients with changes in diet texture (from regular to puree) maintained body weight. | Sample size was limited, and a possible sampling bias was present. Regression analyses were not clearly presented. |
| Nochajski, Tomita, & Mann (1996) | To examine assistive device use by people with cognitive impairment and their caregivers and identify reasons for dissatisfaction, influence of training, and improvement in function | Intervention: Provision or adaptation of assistive devices and environmental interventions to meet specific needs, including training and telephone follow-up  
Outcome Measures: Cognition, independence in ADLs and IADLs, caregiver burden, assistive device user survey. | Greater satisfaction and use were reported for cognitive devices than for physical devices. Primary reason for dissatisfaction was limited cognition of participants. Better cognition was associated with more use of devices. Satisfaction with physical devices improved from pre- to post-intervention; no differences were found for cognitive devices. | Data on the effectiveness of assistive devices in maintaining functional abilities were not presented. The assistive device user survey needs refinement. |
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<tr>
<td>Van Ort &amp; Phillips (1995)</td>
<td>To evaluate the efficacy of two nursing interventions, one contextual and one behavioral, in promoting functional feeding and maintaining adequate nutritional status</td>
<td>Level III, 1-group, repeated measures</td>
<td>N = 8 participants from a secure nursing unit of a large residential geriatric center</td>
<td>Interventions: Contextual intervention over 2 wk to create a context for feeding that encouraged self-feeding and a positive atmosphere. Behavioral intervention providing cues to encourage and reinforce feeding (given to 4 participants)</td>
<td>Participants’ weights were maintained through all phases of the study. Both interventions resulted in a better match between the functional abilities of the participants and level of assistance offered by the feeder.</td>
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<td></td>
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<td></td>
<td>Environment survey, activity performance</td>
<td></td>
<td>Results were reported descriptively (in narrative form) with no supporting data, making it difficult to ascertain the degree to which the interventions influenced the outcomes.</td>
</tr>
<tr>
<td>Yang, Mann, Nochajski, &amp; Tomita (1997)</td>
<td>To follow up on use of assistive devices by participants in the Nochajski et al. (1996) study after 1–2 yr</td>
<td>Level III, 1-group, pretest–posttest</td>
<td>N = 10 (followed up from original study of N = 20)</td>
<td>Intervention: See Nochajski et al. (1996)</td>
<td>Outcome Measures: Cognition, independence in ADLs and IADLs, caregiver burden, use of assistive devices</td>
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<tr>
<td>Avila et al. (2004)</td>
<td>To explore the effects of neuropsychological rehabilitation (NR) on people with mild AD and to report on outcomes used</td>
<td>Level III, Before and after</td>
<td>N = 5 people with probable AD</td>
<td>Intervention: 14 wk of group and individual instruction in errorless learning techniques (memory and IADL training)</td>
<td>Modest improvement was noted on most scales after treatment (including quality of life). No improvement was noted on memory of daily living.</td>
</tr>
<tr>
<td>Dooley &amp; Hinojosa (2004)</td>
<td>To determine the extent to which adherence to occupational therapy recommendations increases quality of life of people with dementia and decreases caregiver burden</td>
<td>Level I, Pretest–posttest, control group, random assignment to groups</td>
<td>N = 40 outpatients with AD</td>
<td>Intervention: Home occupational therapy assessment and recommendations for both groups, written recommendations and a second home visit to review the written report for the intervention group, written recommendations sent via mail for the control group</td>
<td>Significant group effects were found for caregiver burden, positive affect, activity frequency, and self-care status.</td>
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IADL interventions

Telephone follow-up procedures varied from those planned, which may have affected outcomes. Intervention and recommendations cannot be replicated because of inadequate description.
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<tr>
<td>Fitzsimmons &amp; Buettner (2003)</td>
<td>12 women residing in assisted living center on a locked special care unit</td>
<td>Level I</td>
<td>Pretest–posttest (delayed-intervention control group)</td>
<td>Therapeutic cooking group 5 days/ wk for 2 wk (control group—normal facility activities followed by 2 wk in therapeutic cooking group)</td>
<td>Agitation and passivity decreased significantly in the intervention group compared with the control group. Blood pressure increased as engagement increased and decreased as agitation decreased. The small sample size was not justified; only women were included. Intervention time was limited. Analyses are not well described.</td>
</tr>
<tr>
<td>Graff et al. (2003)</td>
<td>12 clients with mild to moderate cognitive impairments and their primary caregivers</td>
<td>Level III</td>
<td>1-group, pretest–posttest N = 12</td>
<td>Client-centered occupational therapy for 2 wk in hospital and 5 wk at home; 2×/week (maximum 10 occupational therapy home visits)</td>
<td>Outcome measures of motor and process skills, ADLs, occupational performance, and cognition improved significantly for older adults with cognitive impairment. Sense of competence of primary caregivers improved significantly. Sample size was small. No control group was used. The intervention was not described in detail.</td>
</tr>
<tr>
<td>Topo, Jylha, &amp; Laine (2002)</td>
<td>6 community-dwelling residents with mild to moderate dementia using the telephone</td>
<td>Level IV</td>
<td>Descriptive case studies N = 6</td>
<td>Provision of a telephone with photographs and programmed numbers over 2-mo test period</td>
<td>Telephone use, dementia rating, family interview 2 participants were unchanged in telephone use abilities, 3 were able to dial a few well-known numbers, and 1 was able to answer but not call out. Families reported increased satisfaction with the telephones. It is unclear how interview data were analyzed or whether data presented are representative of the whole sample. Sample size was small.</td>
</tr>
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### Supplemental Table 1. Evidence for Use of Occupations in Interventions With People With Alzheimer’s Disease and Related Dementias (cont.)

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<td><strong>Leisure interventions</strong></td>
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</table>
| Buettner (1999)     | To evaluate whether age- and stage-appropriate sensorimotor recreational items positively affect visits and activity engagement of residents with dementia | Level III Clinical crossover  
  \(N = 55\) residents with a dementia diagnosis  
  \(N = 43\) staff  
  \(N = 51\) family members | Intervention  
  30 handmade sensorimotor recreational items with instruction sheets given to family members and community volunteers  
  Outcome Measures  
  Quality of visits, use of recreational items, frequency of volunteer involvement | 23 items were found to be therapeutically valuable and acceptable for nursing home use. Frequency of family visits, use of recreational items, and satisfaction with visits were higher during the intervention period. | The intervention description lacks specific details. Presentation of statistical analyses is confusing. |
| Chung (2004)         | To explore the states of well-being of long-term-care residents with dementia when participating in their usual activity pattern | Level III Cross-sectional  
  \(N = 43\) residents with dementia living in 1 of 2 nursing homes in Hong Kong | Intervention  
  Described as occupational therapy, social work, and nursing involvement in planning of activities  
  Outcome Measures  
  Observation of activity patterns with scores for activities and well-being or ill-being | Significant positive correlations were reported between well-being and activities with interaction potential. Significant negative correlations were found between well-being and time spent in noninteractive activities. | A small, convenience sample was used. Authors did not account for confounding factors in the environment. Intervention activities are not well described. |
| Clair & Ebberts (1997) | To determine whether music therapy has an effect on the relationship between caregivers and care receivers | Level III Pretest–posttest  
  \(N = 15\) significant others who regularly visited people diagnosed with severe dementia | Intervention  
  8 music therapy sessions 2×/wk for 4 wk at residential care homes; sessions included conversation, dancing, rhythm participation  
  Outcome Measures  
  Caregiver burden, depression, affect, boundary ambiguity, health, visit satisfaction | No significant differences in outcomes were found except for visit satisfaction. Caregivers’ engagement in participation was higher in singing and rhythm playing compared with in conversation. Care receivers participated more in rhythm playing than in conversation. Caregivers initiated touch more frequently than their care receivers, but care receivers were more responsive to touch than their caregivers. | A convenience sample of volunteers was used. No demographic data are provided about the caregivers or care receivers. Outcome measures are not well known, and their psychometric properties were not reported. |
| Colling & Buettner (2002) | To examine the effect of age- and stage-appropriate sensorimotor recreational items on people with dementia | Level III Clinical crossover design  
  \(N = \) was not reported | Intervention  
  30 fabricated recreational items used during visits at 2 nursing homes on 40-bed special care units for 6 mo with a 1-mo “washout” period between sites  
  Outcome Measures  
  Agitation, cognition, depression, medications, visit logs | The number of volunteers and visits of families and friends increased; satisfaction with visits was significantly improved. Families at both sites reported using items more. Agitation was significantly reduced during the intervention period at 1 site. | The sample was not defined or described. Environmental and client characteristics were not reported. No clear report of interventions was provided. No report was provided of data collected. Statistical analyses were not described. |
Crispi & Heitner (2002) To evaluate a series of kits for family members to use in their visits with people with dementia and to demonstrate the replicability of the program

**Level IV**
Descriptive study

**N** = 29 families of nursing home residents with dementia

**Intervention**
10 kits developed, based on different stages of ability and tested over a 12-wk period; 4 were eliminated

**Outcome Measures**
Resident involvement in activity, value and satisfaction with each kit

Puzzles and reminiscence kits contributed most to visit quality. Sounds of the past and card games contributed least. Active music and puzzles were rated most valuable and card games least valuable. Families reported the kits improved both quality of visits and resident quality of life.

The study design limits the conclusions that can be drawn.

Gitlin et al. (2008) To evaluate the effectiveness of the Tailored Activity Program (TAP) for people with dementia

**Level I**
Randomized controlled pilot study

**N** = 60 community-dwelling people with dementia and their resident caregivers

**Intervention**
TAP, including initial assessment and activity prescription of 3 activities per participant with 8 contacts over 4 mo (control group—wait listed for 4 mo)

**Outcome Measures**
Quality of Life–AD scores; acceptability of TAP

No significant differences were found between groups in quality of life. The intervention was accepted by almost all patients and their caregivers.

Attention bias may be present. Sample size may not have had adequate power to detect difference in quality of life. The number and training of interventionists are not described.

Politis et al. (2004) To compare the effectiveness of a kit-based activity intervention with a time and attention control intervention

**Level I**
RCT, parallel, raters partially masked

**N** = 37 residents with dementia in a care facility

**Intervention**
Activity therapist spent 30 min, 3×/wk for 4 wk with participant choosing an activity from 5 standardized structured activities. For time and attention control group, activity therapist spent same time either conversing or participating in unstructured, relaxed activities.

**Outcome Measures**
Apathy, neuropsychiatric inventory, quality of life, activity success

No significant between-group differences were found on any of the measures. Both interventions resulted in improved quality of life and reduced apathy.

A possible rater bias exists, as raters knew participants were receiving some intervention. Limited information is provided on measurement properties of outcome measures.

Pool (2001) To describe the development of a person-centered model of care based on the implementation of meaningful activity

**Level IV**
Pretest–posttest

**N** = 30 residents of a care facility

**Intervention**
Activities developed on each unit, including individual activities, walks around the garden, hand and foot massage, and life history review; recreational clubs and multisensory environment also offered

**Outcome Measures**
Cognition, activity level, well-being

Of 7 participants with data on cognition, 3 improved, 3 maintained, and 1 declined. Of 29 participants with data on activity level, 26 maintained, 1 reduced, and 2 increased. 57% of participants improved in well-being.

Sample size and sampling methods were not clear. Measurement properties for outcomes were not reported. Intervention details were unclear. Analyses were not well described; significance testing was not conducted.
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<td>Rentz (2002)</td>
<td>To pilot an outcomes-based evaluation of an art program (Memories in the Making) for people with dementia</td>
<td>Level IV Descriptive study N = 41</td>
<td>Intervention Guidance by skilled artist facilitators in use of watercolors and acrylics for self-expression</td>
<td>Indicators suggested that participants always or some of the time worked with sustained attention and had a pleasurable sensory experience; 83% had sustained attention for 30–45 min.</td>
<td>Demographic data were not provided. The operational definition and measurement properties of the measurement tool were unclear.</td>
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<tr>
<td>Bourgeois &amp; Mason (1996)</td>
<td>To evaluate the effects of memory wallets on people with dementia and volunteers</td>
<td>Level IV Single-case; multiple baselines with replication across participants N = 4 day care clients with dementia and volunteer staff</td>
<td>Intervention Memory wallets individually developed to present facts about each client's life; used by volunteers to engage clients in conversation</td>
<td>All clients reduced their use of ambiguous statements during intervention. Volunteers' use of prompts either maintained or decreased during the intervention. Volunteers and family members reported satisfaction with communication after intervention.</td>
<td>The study design limited sample size, analyses, and generalizability. Client responses to the intervention may have been linked to cognitive status.</td>
</tr>
<tr>
<td>Brooker &amp; Duce (2000)</td>
<td>To compare levels of well-being demonstrated by people with mild to moderate dementia using 3 types of activity</td>
<td>Level IV Descriptive study, within-subjects repeated measures N = 25 day hospital participants</td>
<td>Intervention Reminiscence therapy planned around a theme (e.g., famous people, holidays), structured group exercise or craft activities, unstructured time (i.e., minimal involvement between staff and patients)</td>
<td>Reminiscence therapy resulted in higher levels of well-being than general activity or unstructured time.</td>
<td>Results may have been contaminated as each patient experienced all groups. Assessors were not blinded, and the study sample was small.</td>
</tr>
<tr>
<td>Lai, Chi, &amp; Kayser-Jones (2004)</td>
<td>To examine the effectiveness of reminiscence therapy (RT) using a life-story approach for people with dementia in nursing homes</td>
<td>Level I RCT N = 101 in 3 groups</td>
<td>Intervention Weekly 30-min sessions over 6 wk of RT with a life-story approach using highly focused triggers to stimulate recall during conversation (comparison group—friendly discussion; control group—no intervention)</td>
<td>No significant differences were found between groups immediately after intervention or at follow-up. The reminiscence group had significant changes in both outcomes immediately after the intervention; changes in other groups were not significant.</td>
<td>The sample was not large enough for repeated-measures multivariate analysis. Dosage may not have been sufficient. Measures may not have been sensitive enough.</td>
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<tr>
<td>Study</td>
<td>Objective</td>
<td>Design Level</td>
<td>Methodological Design</td>
<td>Sample Size</td>
<td>Intervention Description</td>
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<tr>
<td>Wilkinson, Srikumar, Shaw, &amp; Orrell (1998)</td>
<td>To investigate the effects of drama therapy in a group of older adults with dementia</td>
<td>Level II</td>
<td>2-group prospective comparison</td>
<td>N = 16</td>
<td>Drama and movement group intervention 1.75 hr/wk for 12 wk</td>
</tr>
<tr>
<td>Wishart et al. (2000)</td>
<td>To evaluate the effectiveness of a volunteer visiting–walking program</td>
<td>Level I</td>
<td>RCT</td>
<td>N = 24</td>
<td>Weekly visits by trained volunteers that included crafts, walking, and conversation for 6 wk (control group—wait listed)</td>
</tr>
</tbody>
</table>

**Note.** AD = Alzheimer’s disease; ADLs = activities of daily living; BMI = body mass index; IADLs = instrumental activities of daily living; RCT = randomized controlled trial.

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