



AOTA Critically Appraised Topics and Papers Series
Alzheimer's Disease

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

CRITICALLY APPRAISED PAPER (CAP)

Focused Question

What is the evidence for the effect of interventions designed to modify and maintain perceptual abilities on the occupational performance of persons with dementia?

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Lantz, M. S., Buchalter, E. N., & McBee, L. (1997). The wellness group: A novel intervention for coping with disruptive behavior in elderly nursing home residents. *Gerontologist, 37*, 551–556

PROBLEM STATEMENT (JUSTIFICATION OF THE NEED FOR THE STUDY)

State the problem the authors are investigating in this study.

Hopelessness and the loss of the ability to direct daily life contribute to physical and emotional stressors that may manifest as psychiatric or behavioral symptoms. Life satisfaction in older adults is directly related to having a sense of coping skills. Patients with dementia are thought of as impaired and typically not offered the opportunity to utilize or develop coping skills to deal with disabilities or changing body image, or to promote identity, empowerment, and self-esteem. Current emphasis on the management of behaviors has focused entirely on the control of disruption rather than the promotion of residents' strengths and abilities.

RESEARCH OBJECTIVE(S)

List study objectives.

The paper describes a group designed to build on residents' strengths by enhancing residents' self-awareness. It also reports on the initial evaluation of this group.

Describe how the research objectives address the focused question.

Activities that focus on the use of perceptual skills are used to enhance body awareness, enhance sense of control, and impact ability to participate in activities of daily living.

DESIGN TYPE:

Two group non-randomized study and case studies

Level of Evidence:

Level II and Level V

Limitations (appropriateness of study design):

Was the study design type appropriate for the knowledge level about this topic? *If no, explain.*

Yes

✓ This study was done to describe a pilot intervention. The small, two group comparison is a reasonable first step to evaluate its effectiveness. Case studies illustrate the ability of the intervention to impact clients' individual situations and the importance of continued investigation to affirm that the intervention can result in change.

No

SAMPLE SELECTION

Inclusion Criteria

Inclusion criteria for the evaluation are not clearly stated. For the group, residents must be able to attend the programs and have the potential to remain in the group setting for periods of up to 1 hour. Authors state that the criteria are "intentionally broad ...to include residents with a diverse presentation of the spectrum of dementia" (p. 553).

Exclusion Criteria

NR

NR = Not reported

Sample Selection Biases: *If yes, explain.*

Volunteers/Referrals

Yes

✓ Participants were selected by their attendance in program

No

Attention

Yes

No

Others (list and explain):

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SAMPLE CHARACTERISTICS

N=14

% Dropouts

(%) Male

(%) Female

Ethnicity

Disease/disability diagnosis	Dementia; Experimental group: Mean Mini Mental State Examination (MMSE) score: 8 (range: 0–18); mean age: 81 years (range: 72–94 years) Control Group: Mean MMSE score: 9 (range: 0–16). mean age: 82 years (range: 70–91 years)
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Check appropriate group:

<20/study group <input checked="" type="checkbox"/>	20–50/study group <input type="checkbox"/>	51–100/study group <input type="checkbox"/>	101–149/study group <input type="checkbox"/>	150–200/study group <input type="checkbox"/>
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Sample Characteristics Bias: If no, explain.

If there is more than one study group, was there a similarity between the groups?

Yes

No All residents have dementia diagnosis and live on the same unit, but statistical equivalence of the groups not reported.

Were the reasons for the dropouts reported?

Yes

No

INTERVENTION(S)—Included are only those interventions relevant to answering the evidence-based question.

Add groups if necessary

Group 1

Brief Description	8–10 residents grouped by cognitive status and severity of dementia; people with mild dementia placed together and people with moderate/severe dementia grouped together. Groups ran with 2–10 residents.
Setting	514 bed academic nursing home in which 70% of residents have a diagnosis of dementia; sessions are delivered in a unit lounge, terrace, or day room
Who Delivered?	Delivered by a psychiatrist and social worker, but other disciplines could be trained to deliver
Frequency?	Meet weekly for 1 hour over a 10 week period
Duration?	10 structured sessions with a clear goal identified for each meeting; 6 defined sessions, with a repeat of session 3–6; Sessions 3–6 can be repeated continuously

Group 2

Brief Description	Usual care in the nursing home; no group intervention.
Setting	514 bed academic nursing home in which 70% of residents have a diagnosis of dementia; sessions are delivered in a unit lounge, terrace or day room
Who Delivered?	N/A
Frequency?	N/A
Duration?	N/A

Intervention Biases: *Explain, if needed.*

Contamination

Yes Staff became aware of techniques and group membership; staff were able to identify techniques and were spontaneously using in their daily work, therefore not necessarily confined to intervention group

No

Co-intervention

Yes

No

Timing

Yes

No

Site

Yes

No

Use of different therapists to provide intervention

Yes

No

MEASURES AND OUTCOMES—Included are measures relevant to answering the focused question.

Name of measure:

Cohen-Mansfield Agitation Inventory (CMAI)

Outcome(s) measured (what was measured?):

Incidence of agitated behavior

Is the measure reliable (as reported in article)?

Yes

No

NR

Is the measure valid (as reported in article)?

Yes

No

NR

How frequently was the measure used for each group in the study?

Administered at baseline and after 12 weeks of the program

Measurement Biases

Were the evaluators blinded to treatment status? *If no, explain.*

Yes

No Primary nursing assistant administered measure but staff were aware of which residents were attending program

Recall or memory bias *If yes, explain.*

Yes

No

Others (list and explain):

Limitations (appropriateness of outcomes and measures) *If no, explain.*

Did the measures adequately measure the outcome(s)?

Yes

No

RESULTS

List results of outcomes relevant to answering the focused question

CMAI scores for intervention group: Median change: -15.5(range: -32.0 to -4.0), standard deviation (SD): 10.4 (p<.001)

Control Group: Median change: -1.0 (range -2.0 to +2.0), SD: 1.6 (p=< .001)

Both groups showed improvement, although the intervention group showed greater reductions in agitation.

Case vignettes demonstrate that the group was useful in reducing physical aggressiveness, helping a resident cope with increasing frailty, and offering an alternative to verbal disruption.

Was this study adequately powered (large enough to show a difference)? *If no, explain.*

Yes

No No power analysis presented; very small group

Were appropriate analytic methods used? *If no, explain.*

Yes

No

NR

Were statistics appropriately reported (in written or table format)? *If no, explain.*

Yes

No

NR

CONCLUSIONS

State the authors' conclusions that are applicable to answering the evidence-based question.

The group promotes integrity by offering an active role in healing and serving to reduce distressing symptoms such as disruptive behavior and agitation. Techniques focus on residents' strengths and individual coping skills. Direct care staff members become partners in therapeutic efforts. Staff perceived all group members as less agitated, along with all members of the unit as less agitated, suggesting an increase in caregiving staff coping skills.

Were the conclusions appropriate for the study design (level of evidence)? *If no, explain.*

Yes

No Given the non-randomized, non-controlled design of the evaluation and the limited rigor of the case vignettes, it would be difficult to suggest that the group was responsible for change based on the level of evidence presented.

Were the conclusions appropriate for the statistical results? *If no, explain.*

Yes

No A high level of influence is assigned to this group without the appropriate statistical support; case studies illustrate successful characteristics although data do not accompany the case vignettes.

Were the conclusions appropriate given the study limitation and biases? *If no, explain.*

Yes

No It would be difficult to suggest that the group intervention was responsible for the change in level of agitation. Staff perception was influenced by intervention and may have resulted in change in responses to agitation or disruptive behavior in both groups.

IMPLICATIONS FOR OCCUPATIONAL THERAPY

This section provides guidance about clinical practice, program development, and other implications of the study findings as they relate to the focused question.

The theoretical constructs of this study are client-centered and empowering, and it has potential to be within the scope of occupational therapy practice as an intervention utilizing perceptual skills and cognitive skills to change behavior. The level of evidence is very low and suggests that more study is required. It is not known whether the intervention is responsible for the change in resident behavior. Further evaluation is recommended with more stringent examination prior to its inclusion as a possible intervention for clients with dementia. This intervention would impact clinical practice by changing the focus of interactions from one of control to one of empowerment. The program would be relatively simple to implement and would not require significant resources, so would be cost-effective. With rigorous study to confirm the effectiveness of this group intervention, it has potential to reduce health care delivery costs by reducing the use of psychotropic medications to control behaviors. The additional benefit of motivating caregiving staff to interact in a positive, respectful, therapeutic manner would impact societal needs by encouraging maintaining the integrity of older adults with deficits.

This work is based on the evidence-based literature review completed in August 2005 by Lori Letts, PhD, OT Reg. (Ont.); Jacqueline Minezes, BSc (OT), OT Reg. (Ont.); Julie Berenyi, BHSc (OT) OT Reg. (Ont.); Mary Edwards, MHSc, OT Reg. (Ont.); Kathy Moros, BHSc (OT), OT Reg. (Ont.); Colleen O'Neill, BSc (OT), OT Reg. (Ont.); and Colleen O'Toole, MSc (OT), OT Reg. (Ont.).

CAP Worksheet adapted from: Critical Review Form – Quantitative Studies ©Law, M., Stewart, D., Pollack, N., Letts, L., Bosch, J., & Westmorland, M., 1998, McMaster University. Used with permission.

For more information about the Evidence-Based Literature Review Project, contact the American Occupational Therapy Association, 301-652-6611, x 2052.



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