



## 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 establish, modify, and maintain activities of daily living (ADL), instrumental activities of daily living (IADL), leisure, and social participation on the quality of life, health and wellness, and client and caregiver satisfaction for persons with dementia?**

Wilkinson, N., Srikumar, S., Shaw, K., & Orrell, M. (1998). Drama and movement therapy in dementia: A pilot study. *The Arts in Psychotherapy, 25*, 195–201.

#### **PROBLEM STATEMENT (JUSTIFICATION OF THE NEED FOR THE STUDY)**

State the problem the authors are investigating in this study.

Limited attention has been paid to the psychosocial consequences of dementia. While many interventions have focused on improving cognition or reducing symptoms, less attention has been paid to people's subjective experiences. Arts and drama offer opportunities to improve well-being, but their effects need to be evaluated.

#### **RESEARCH OBJECTIVE(S)**

List study objectives.

To investigate the effects of drama therapy in a group of older adults with dementia.

Describe how the research objectives address the focused question.

The drama therapy group represents a form of social participation and leisure. People with dementia were involved in the drama group, and outcomes included a health outcome measure for persons with dementia.

#### **DESIGN TYPE:**

Two group prospective comparison

#### **Level of Evidence:**

II

Limitations (appropriateness of study design):

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

Yes

✓ A two group prospective design is stronger than a before-after design, and considering the knowledge level on the effectiveness of drama with people with dementia, it is acceptable. However, randomly allocated people to the intervention or control would have been preferable.

No

**SAMPLE SELECTION**

How were subjects selected to participate? Please describe.

**Inclusion Criteria**

- Consultant diagnosis of dementia
  - Fulfilled DSM-IV criteria for dementia
- “Patients were selected for the drama therapy group if they had a reasonable level of communication abilities and mild to moderate cognitive impairment” (p. 196).

**Exclusion Criteria**

None stated.

Sample Selection Biases: *If yes, explain.*

Volunteers/Referrals

Yes

✓ Patients were selected by staff with limited concrete criteria.

No

Attention

Yes

✓ It appears that those in the intervention group received more attention than those in the control group, who seem to have received usual care in the day hospital.

No

Others (list and explain):

**SAMPLE CHARACTERISTICS**

N=16

% Dropouts

1 (6.25%) (gender data not provided)

#/ (%) Male  #/ (%) Female

Ethnicity

Disease/disability diagnosis

NR = Not reported

Check appropriate group:

<20/study group <input checked="" type="checkbox"/>	20–50/study group	51–100/study group	101–149/study group	150–200/study group
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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  The authors did not test for statistically significant differences between the intervention and control groups, but it does appear that there were difference. All 9 in the intervention group were women, and 5 of 6 people in the control group were men. The mean age of group members appear similar (79.6 years in the intervention and 80 years in the control). 6/9 intervention group members lived alone, and 2/6 in the control group lived alone. Based on initial data reported, it appears that the control group had more cognitive impairment at baseline, more behavioral problems, more IADL impairment, and slightly higher scores related to mental health problems (table 1, page 199).

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	Drama and Movement Therapy – based on Sesame Method, which uses music, movement and drama. Each session used both structured and unstructured time.
Setting	Psychiatric day hospital for older adults
Who Delivered?	NR
Frequency?	Weekly for 12 consecutive weeks
Duration?	1 hour, 45 minutes

Group 2

Brief Description	Control group – it appears that people in the control group usual care in the day hospital, but this is not explicitly stated. In the discussion, it is stated that “at the same time as the drama therapy, the control group was engaged in general group activities” (p. 199), but it is not clear if this was equal to the amount of time and attention given to the intervention group.
Setting	Psychiatric day hospital for older adults
Who Delivered?	NR
Frequency?	NR
Duration?	NR

Intervention Biases: Explain, if needed.

Contamination

Yes

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:

General Health Questionnaire (GHQ-12)

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

Mental health

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?

One week prior to beginning the therapy; and within two weeks of finishing the therapy.

### Measurement Biases

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

Yes

No

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  Little information is provided about the GHQ-12, making it difficult to judge its appropriateness.

## RESULTS

List results of outcomes relevant to answering the focused question

Include statistical significance where appropriate ( $p < 0.05$ )

Include effect size if reported

For people in the intervention group, mean scores on the GHQ-12 rose from 15.4 to 17.7 at follow-up, indicating deterioration. The control group mean scores stayed the same at 17.0. The difference was stated to be not statistically different, but p values are not reported. The authors state that one member of the intervention group became depressed during the study.

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

Yes

No  With 9 people in the intervention group, and 6 in the control group, it is unlikely that the study was adequately powered. However power is not calculated.

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

Yes

No

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

Yes

No  The results state that there were no statistically significant difference between groups, but it is not clear if the authors are comparing the groups at baseline or follow-up. Further, p values are not reported.

## CONCLUSIONS

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

“Our study found that dementia sufferers appeared to enjoy and benefit emotionally from the drama therapy, and had improved self-esteem and social interaction” (p. 200). They also suggest that drama may improve quality of life.

Were the conclusions appropriate for the Study Design (Level of Evidence)? *If no, explain.*

Yes

No  A non-randomized comparison design is not a rigorous enough design to make such conclusions.

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

Yes

No  The authors appear to be making their conclusions on anecdotal evidence described about participants' responses to the intervention. The quantitative evidence does not support the use of drama therapy.

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

Yes

No  The authors acknowledge the major limitations of the study: non-random allocation to groups; potential differences between the two groups; small sample size. As well, it is unclear if there is attention bias i.e., did the control group receive a comparison or placebo intervention? With these limitations, the conclusions appear to be inappropriate.

## 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.

This study does not provide adequate evidence to support occupational therapists to implement a drama and movement therapy program for people with dementia. The authors acknowledge the major limitations of the study. Considering these limitations, along with the fact that the data do not support the use of the drama therapy group, the results of this study can not be used to consider implementing such a program for people with dementia.

This work is based on the evidence-based literature review completed by Lori Letts, PhD, OT Reg. (Ont.), Julie Berenyi, BSc (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.), Colleen O'Toole, MSc (OT), OT Reg. (Ont.), and Colleen McGrath, MSc (OT), OT Reg. (Ont.)

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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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