



**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, client and caregiver satisfaction for persons with dementia?**

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Lai, C. K., Chi, I. & Kayser-Jones, J.( 2004). A Randomized controlled trial of a specific reminiscence approach to promote the well-being of nursing home residents with dementia. *International Psychogeriatrics, 16*, 33–49.

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

State the problem the authors are investigating in this study.

To date, no firm conclusion can be reached regarding the effectiveness of reminiscence for dementia. More rigorous studies are required to explicate the benefits of reminiscence before any conclusions can be drawn.

**RESEARCH OBJECTIVE(S)**

List study objectives.

The study was designed to answer the following questions: Is specific reminiscence adopting a life-story approach a useful intervention for promoting social well-being in people with dementia in nursing homes?  
If it is useful, can its effects be sustained for six weeks after the intervention?  
( A positive correlation between intervention and outcome was hypothesized.)

Describe how the research objectives address the focused question.

The research objective proposed examining a specific approach to reminiscence and determining its effect on social well-being and sustainability. This is a specific aspect of the focused question.

**DESIGN TYPE:**

Randomized Control Trial

**Level of Evidence:**

Level 1

Limitations (appropriateness of study design):

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

Yes

No

**SAMPLE SELECTION**

How were subjects selected to participate? Please describe.

**Inclusion Criteria**

- Subjects were recruited from 2 publicly funded nursing homes
- Diagnosed with dementia
- Able to communicate most of the time
- Able to understand and speak Cantonese

**Exclusion Criteria**

- Any active major psychiatric disorder( schizophrenia, major affective disorders)
- Any acute or unstable chronic medical condition including cardiac or lung disease
- Blindness
- Inability to hear even with a hearing aid

Sample Selection Biases: *If yes, explain.*

Volunteers/Referrals

Yes

No

Attention

Yes

No

Others (list and explain):

**SAMPLE CHARACTERISTICS**

N= 101 recruited- to Intention-to-treat sample (ITT)

% Dropouts

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

Ethnicity

Disease/disability diagnosis

Check appropriate group:

<20/study group	20–50/study group <input checked="" type="checkbox"/>	51–100/study group	101–149/study group	150–200/study group
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N= 86 in Per Protocol sample

% Dropouts

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

Ethnicity

Disease/disability diagnosis

Check appropriate group:

<20/study group	20–50/study group <input checked="" type="checkbox"/>	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

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	Intervention-discussed their life experiences and events of the past. Highly focused use of triggers that approximate the life history of the individual and efforts to stimulate recall during conversation.
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Setting	Nursing home
Who Delivered?	Research assistants- 3 social workers & 1 OT
Frequency?	Weekly sessions for 6 weeks
Duration?	30 minutes

Group 2

Brief Description	Comparison group- had discussion but were facilitated to not discuss life experiences and events of the past
Setting	Nursing home
Who Delivered?	Research assistants- 3 social workers & 1 OT
Frequency?	Weekly sessions for 6 weeks
Duration?	30 minutes

Group 3

Brief Description	Control group
Setting	
Who Delivered?	
Frequency?	
Duration?	

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

✓ A group of research assistants were trained to provide the interventions in a consistent manner. A different (blinded) group was trained to collect the outcome data

No

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

Name of measure:

Social Engagement Scale (SES)

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

A caregiver rating scale that evaluates the status of the resident over the past seven days.

Is the measure reliable (as reported in article)?

Yes

No

NR

NR = Not reported

Is the measure valid (as reported in article)?

Yes

No

NR

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

Baseline (T-0), Immediately (T-1) and six weeks after intervention ( T-2)

Name of measure:

Well-being/Ill-being Scale ( WIB) ( One of three measures in the tool Dementia Care Mapping (DCM)

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

Indicators of well-being( e.g. ability to express wishes, bodily relaxation, creative self-expression) and Ill-being ( e.g. sadness or grief, sustained anger, anxiety) were observed every 5 minutes over a period of 6 hours

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?

Baseline (T-0), Immediately (T-1) and six weeks after intervention ( T-2)

### 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

## **RESULTS**

List results of outcomes relevant to answering the focused question

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

Include effect size if reported

No significant differences were found (in either ITT or per protocol groups) when comparing the outcome variables between T-1 and T-0, T-2 and T-1 and T-2 and T-0 for each individual group.

However, Within the ITT intervention group there were significant changes noted when comparing T-1 and T-0 WIB and T-2 and T-0 SES,. Since the test for significant changes in WIB score reached a power of 80%, the finding that the intervention did produce significant improvements in the well-being of the subjects can be regarded as fairly convincing.

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

Yes

No  (Authors report that the sample was too small for repeated-measures multivariate analysis.)

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

Yes

No

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

Yes

No

## CONCLUSIONS

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

In answering the question whether a specific (life-story approach) reminiscence intervention is useful for promoting social well-being in nursing home residents the straightforward answer is "no". However, from the analysis of the changes noted in the intervention group the answer is "yes". The effect was sustained in the intervention group six weeks after the intervention. While there was improvement in the subjects WIB scores six-weeks post intervention but not at a statistically significant level. Results are promising but not definitive. If specific reminiscence is to be beneficial it may need to be part of a continuous, ongoing program.

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

Yes

No

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

Yes

No

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

Yes

✓ Limitations included small sample size, “dosage” of the intervention may have been too weak, measures may not have been sensitive enough, there may have been preconceived notions about intervention and comparison groups.

No

## 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 has addressed some of the methodological issues mentioned in the literature to address this question. The outcomes provide some evidence of a positive effect of reminiscence on WIB that is sustainable over a period of 6 weeks. Longer term sustainability is questioned and in fact the authors indicate that the intervention may need to be ongoing. OT’s wishing to use this intervention still need to determine which features of reminiscence and under what circumstances will have greater or lesser benefits.

No harm was detected from the intervention and there may be some patient and caregiver satisfaction in the process that is worth considering. It is relatively easy to implement at little cost and may assist in improving the quality of social interaction between persons with dementia and their caregivers.

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, MHS, OT Reg. (Ont.), Kathy Moros, BHS (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.)

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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