

Title:

A Critically Appraised Topic: Effects of Reminiscence Therapy on Agitation in Dementia

Focused Question:

What is the evidence for the effectiveness of reminiscence therapy (i.e. simulated presence therapy, technology) in decreasing agitation in individuals with dementia?

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Clinical Scenario:

According to the National Institutes of Health (2012), Dementia is a term used to describe a group of chronic, progressive, degenerative cognitive disorders. These disorders lead to a significant loss of independent functioning which has a profound negative impact upon individuals, families, and health care systems (as cited in DiZazzo-Miller, Samuel, Barnas, & Welker, 2014). People with dementia suffer from global cognitive impairment, represented as a decline from the individual's prior level of functioning, and can become easily stressed (Zetteler, 2008). Persons who experience elevated stress levels cannot effectively participate in meaningful occupations.

Agitation is defined as a "mental disturbance or perturbation showing itself usually by physical excitement" (Kong, 2005, p. 527), however the concept of agitation is not well identified or defined. Many studies have found there is a statistically significant relationship between agitation and dementia, but there has also not been a clarification of this concept. Researchers have found that agitation has a behavioral component and a mood component. The behavioral component of agitation was most commonly presented as a response to a stimuli, or as a response to a health problem, and the mood component stemmed from the patient's desire to express their needs or feelings. Other studies noted patients with agitated behaviors had resistance towards care, developed sleep disorders, had aggressive behaviors, and were restless. These behaviors create a decreased quality of life for patients with agitation, and an increase in caregiver strain (Kong, 2005).

Reminiscence therapy is a common intervention used in dementia care and can be defined as, "The discussion of past activities, events and experiences with another person or group of people, usually with the aid of tangible prompts such as photographs, household and other familiar items from the past, music and archive sound recording" (Woods, Spector, Jones, Orrell, & Davies, 2009, p. 1). Reminiscence therapy is one of the leading psychological treatment strategies for those with dementia and is dated back to the 1960's (Woods et al., 2009). Studies have shown positive effects of reminiscence therapy on those with dementia as well as their caregiver(s), including an increase in cognition and mood, and a decrease of strain on caregivers (Woods et al., 2009). These positive effects of reminiscence therapy could

create beneficial changes such as the level of participation in meaningful occupations of those with dementia.

Researchers are interested in critically examining the literature regarding the effectiveness of reminiscence therapy in decreasing agitation in persons with dementia.

Summary of Key Findings:

Summary of Levels I, II, and III

Level I

Six studies were categorized as a Level I study. One study was classified as a quasi-experimental and five studies were classified as randomized control trials (Asiret, G. D., & Kapucu, S. 2015; Baillon et al., 2004; Garland, K., Beer, E., Eppingstall, B., & O'Connor, D. W. 2007; O'Shea et al., 2013; Woods et al., 2016).

- Reminiscence therapy intervention strategies were found to have a significant effect on the cognitive status and depression of institutionalized patients with mild to moderate AD. Reminiscence therapy also had a positive effect on communication but a limited effect on collaboration, socialization, and restlessness (Asiret & Kapucu, 2015).
- Reminiscence therapy and Snoezelen are both effective treatment interventions increasing mood and behavior on individuals with dementia (Baillon et al., 2004).
- Simulated presence is a modestly effective treatment for physical and verbal agitation. Preferred music is a modestly effective treatment for only physical agitation (Garland et al., 2007).
- Reminiscence therapy has a significant positive effect on quality of life in people with dementia on a per-protocol basis, but had a non-significant effect when the protocol was not followed correctly (O'Shea et al., 2014).
- Six weeks of music therapy significantly reduced average agitation disruptiveness scores in persons with dementia, compared to standard care. Moreover, during music therapy the prescriptions of psychotropic medication were not increased, whereas they were increased for seven participants during the standard care period (Ridder et al., 2013).
- Support was not provided for the effectiveness of joint reminiscence groups for people with dementia and their carers in relation to intention to treat analyses of primary or secondary outcomes. At 10 months, carers in the reminiscence groups reported higher anxiety on the GHQ sub-scale whilst those allocated to usual treatment showed a reduced level of anxiety at this point (Woods et al., 2016).

Level II

Two studies were categorized as cohort design studies (Cohen-Mansfield, J., Libin, A., Marx M. S. 2007; Yang, Y., Lee, F., Chao, H., Hsu, F., & Wang, J. 2016).

- Individualized non-pharmacological interventions caused a significant decrease in agitation based on the Agitated Behavior Mapping Instrument. This intervention also

had a significant increase in pleasure and interest based on the Lawton's Modified Behavior Stream (Cohen-Mansfield et al., 2007).

- Benefits of aroma massage compared to reminiscence therapy on agitation concluded a decrease in agitation for both therapies. It was found that aroma massage can be a more effective intervention than reminiscence therapy and cognitive stimulation therapy in alleviating the agitated behavior and depressive symptoms of persons with dementia (Yang et al., 2016)

Level III

One study was categorized as a single group, non-randomized pilot study (Pringle, A., & Somerville, S. 2013).

- Technology (tablet) used as a reminiscence therapy intervention found to improve memory in categories of conversation, social memory, and song recall.

Summary of Levels IV and V

Not included in this review.

Contributions of Qualitative Studies:

Not included in this review.

Bottom Line for Occupational Therapy Practice:

Occupational therapists are healthcare providers that promote quality of life and participation in meaningful occupations for individuals with dementia. Occupational therapists are trained to utilize the client's strengths to provide individualized therapy interventions. Research supports the use of reminiscence therapy as effective intervention in decreasing agitation. Researchers suggest that a decrease in agitation will improve quality of life in those diagnosed with dementia.

In order to provide effective implementation of reminiscence therapy, occupational therapists must have knowledge and understanding of the benefits of individualized treatment programs. Occupational therapists use an occupational profile to identify specific interests of each individual. Research suggests it is important for occupational therapists to examine program development to consider the best use of reminiscence therapy in various settings. This preparation is suggested to consist of staff training and development of protocols for the most effective, individualized approach to reminiscence therapy to potentially decrease agitation.

As noted in the research, the process of reminiscing also brings about many emotions for the caregivers and family of the participants. As the occupational therapist providing treatment, it is important to consider caregiver education regarding current research and the expectations based on typical outcomes. Occupational therapists may suggest how this intervention could assist with carryover into daily routines and notify the caregiver that the intervention will not cure or reverse the memory loss, but rather may promote an ease in daily occupations for the client through possible decreased agitation. Education on the current research may decrease caregiver expectations that may lead to disappointment and sadness throughout or following

treatment sessions. A potential side effect from reminiscence therapy could be caregiver stress as a result of this additional responsibility. Therefore, it is important for occupational therapists to include the caregiver in treatment sessions and provide coping skills to help alleviate stress and assist with the transitions in roles and relationships between the caregiver and person with dementia.

The researchers suggest this information may contribute to the application of evidence based reasoning and provide occupational therapists with treatment strategies for agitated behaviors in persons with dementia. This knowledge may lead to improvements in the outcomes of treatment for agitated behaviors. Although literature is expanding, more research is needed to determine reminiscence therapy's effect on individuals with dementia.

Review Process

- Focus question was developed and peer-reviewed
- Comprehensive database search using 10 search terms
- Comprehensive literature review was conducted
- Articles were reviewed and classified by priority level and evidence level (priority level determined by fit with the population, intervention, and outcomes variables)
- Literature table created to organize low, medium, and high priority articles
- Evidence table created to organize strongest medium and high priority articles
- Completed 9 critically appraised papers (CAPs) on each article included in the evidence table
- Completed critically appraised topic (CAT) based on CAPs
- CAT was reviewed by peers and mentor

Procedures for the selection and appraisal of articles

Inclusion Criteria:

- Participants with dementia
- Interventions that utilized reminiscence therapy or simulated presence therapy
- Articles within the time period 2006-2016, unless determined to be a classic article
- Accepted low levels of evidence if articles were medium or high level priority

Exclusion Criteria:

- Qualitative studies

Search Strategy

Categories	Key Search Terms
Client Population	Adult, dementia, person with dementia, individuals with dementia, mild dementia
Intervention	Reminiscence therapy, simulated presence

Comparison	Not applicable
Outcomes	Agitation, agitated behavior, challenging behaviors

Databases and Sites Searched
EBSCOhost, CINAHL, Google Scholar, AJOT, Medline Complete, OT Practice, Health Source- Nursing/Academic Edition.

Quality Control/Peer Review Process:

<ul style="list-style-type: none"> ● Focus question, search terms, and search strategies were developed by research team, mentor, and professors. ● Reference librarian assisted research team in accessing literature. ● Research team, mentor, professors, and peers reviewed articles, CAPs, literature table, and evidence table throughout the process. ● Research team completed the CAT which was reviewed by mentor and peers.
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Results of Search

Summary of Study Designs of Articles Selected for Appraisal

Level of Evidence	Study Design/Methodology of Selected Articles	Number of Articles Selected
I	Systematic reviews, meta-analysis, randomized controlled trials	6
II	Two groups, nonrandomized studies (e.g., cohort, case-control)	2
III	One group, nonrandomized (e.g., before and after, pretest, and posttest)	1
IV	Descriptive studies that include analysis of outcomes (single subject design, case series)	0
V	Case reports and expert opinion, which include narrative literature reviews and consensus statements	0
	Qualitative Studies	0
		TOTAL : 9

Limitations of the Studies Appraised

Levels I, II, and III

<ul style="list-style-type: none"> ● One study noted a limitation being the use of researchers to conduct interventions rather than nursing home staff, which may have resulted in a bias (Cohen-Mansfield et al., 2007).
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- Two studies administered assessments multiple times which could have resulted in a learned response to the exam questions (Asiret & Kapucu, 2015; Woods et al., 2016).
- Three studies had small, non-randomized sample that limited the ability to generalize to the larger population (Pringle & Somerville, 2013).
- Two studies had small, randomized sample that limited the ability to generalize to the larger population (Ridder et al., 2013; Baillon et al., 2004)
- In one study, three of the nine intervention sites were deemed to not have formally implemented the program per protocol (O'Shea et al., 2014).
- One study used self-report measures to collect data which may indicate biased results (O'Shea et al., 2014).
- Two studies had outcomes that were based on observational data rather than using standardized, reliable, and valid measures (Garland et al., 2007; Yang et al., 2016).
- One study had a large, non-randomized sample because two facilities of 12 insisted on being assigned to the intervention group as terms for participation in this study (Cohen-Mansfield et al., 2007).
- Two studies implemented short-term interventions and did not investigate whether the effects of the use of therapy were longer-lasting, or able to be generalized to other tasks (Pringle & Somerville, 2013; Cohen-Mansfield et al., 2007).
- One study had data missing in the collection of demographic information (Ridder et al., 2013).
- Three studies had a limitation that interviewers and proxy respondents were not blinded to the treatment (Ridder et al., 2013; Cohen-Mansfield et al., 2007; Asiret & Kapucu, 2015).

Levels IV and V

Not included in this study.

Articles Selected for Appraisal

Asiret, G. D., & Kapucu, S. (2015). The effect of reminiscence therapy on cognition, depression, and activities of daily living for patients with alzheimer disease. *Journal of Geriatric Psychiatry and Neurology*, 29, 31-37. doi: 10.1177/0891988715598233.

Baillon, S., Van Diepen, E., Prettyman, R., Redman, J., Rooke, N., & Campbell, R. (2004). A comparison of the effects of snoezelen and reminiscence therapy on the agitated behaviour of patients with dementia. *International Journal Of Geriatric Psychiatry*, 19(11), 1047-1052. doi:10.1002/gps.120.

Cohen-Mansfield J., Libin A., & Marx M. S. (2007). Nonpharmacological treatment of agitation: A controlled trial of systematic individualized intervention. *J Gerontol A Biol Sci Med Sci*, 62A(8), 908-916.

Garland, K., Beer, E., Eppingstall, B., & O'Connor, D. W. (2007). A comparison of two treatments of agitated behavior in nursing home residents with dementia: Simulated family

presence and preferred music. *The American Journal Of Geriatric Psychiatry*, 15(6), 514-521. doi:10.1097/01.JGP.0000249388.37080.b4.

O'Shea, E., Devane, D., Cooney, A., Casey, D., Jordan, F., Hunter, A., & Murphy, K. (2014). The impact of reminiscence on the quality of life of residents with dementia in long-stay care. *International Journal Of Geriatric Psychiatry*, 29(10), 1062-1070. doi:10.1002/gps.4099.

Pringle, A., & Somerville, S. (2013). Computer-assisted reminiscence therapy: Developing practice. *Mental Health Practice*, 17(4), 34-37.

Ridder, H. M. O., Stige, B., Qvale, L. G., & Gold, C. (2013). Individual music therapy for agitation in dementia: An exploratory randomized controlled trial. *Aging and Mental Health*, 17(6) 667-678.

Woods, R. T., Orrell, M., Bruce, E., Edwards, R. T., Hoare, Z., Hounsome, B., Keady, J., Moniz-Cook, E., Orgeta, V., Rees, J., & Russell, I. (2016). REMCARE: Pragmatic multi-centre randomised trial of reminiscence groups for people with dementia and their family carers: Effectiveness and economic analysis. *PLoS ONE* 11(4): e0152843. doi: 10.1371/journal.pone.0152843.

Yang, Y., Lee, F., Chao, H., Hsu, F., & Wang, J. (2016). Comparing the effects of cognitive stimulation, reminiscence, and aroma-massage on agitation and depressive mood in people with dementia. *Journal of the American Medical Directors Association*, 17(8), 719-724. doi:10.1016/j.jamda.2016.03.021.

Other References

DiZazzo-Miller, R., Samuel, P. S., Barnas, J. M., & Welker, K. M. (2014). Addressing everyday challenges: Feasibility of a family caregiver training program for people with dementia. *American Journal of Occupational Therapy*, 68, 212-220. doi: 10.5014/ajot.2014.009829.

Kong, E. (2005). Agitation in dementia: Concept clarification. *Journal of Advanced Nursing*, 52(5), 526-536.

Woods, B., Spector, A. E., Jones, C. A., Orrell, M., & Davies, S. P. (2009). Reminiscence therapy for dementia. *Cochrane Database of Systematic Reviews* 2005, Issue 2. Art. No.: CD001120. doi: 10.1002/14651858.CD001120.pub2.

Zettler, J. (2008). Effectiveness of simulated presence therapy for individuals with dementia: A systematic review and meta-analysis. *Aging & Mental Health*, 12(6), 779-785. doi:10.1080/13607860802380631.