

What is the impact of cognitive stimulation therapy on the overall quality of life in older adults with dementia, Alzheimer's disease, or other cognitive impairments, in comparison to standardized intervention?

Shannon Buchheister, OTS; Kirsten Cluett, OTS; Gianna Fiore, OTS; Dayana Swid, OTS; Alysson Goodwin, PhD, OTR/L
Monmouth University, West Long Branch, NJ

Introduction

Diseases such as dementia, Alzheimer's, or other cognitive impairments lead to the eventual decline in patient's cognitive abilities, and this affects their overall quality of life.⁷ Dementia is not only the fifth leading cause of death globally but also one of the most burdensome diseases affecting over 50 million people around the world.^{1,8} As the global number of older adults increases, so does the prevalence of neurocognitive disorders.⁵ Due to the irreversible nature of these cognitive disorders, aspects such as cognitive dysfunction, depression, behavioral disturbances, and psychological disturbances present itself, as well as dysfunction in activities of daily living (ADLs).⁸ There is a loss of the individual's self-care abilities and overall functional independence.⁷ While pharmacological interventions are helpful in slowing the progression of the disease, they primarily manage the symptoms and their side effects, which is why nonpharmacological interventions are gaining increasing attention.⁶ Cognitive stimulation therapies (CST) is a more preventative and therapeutic measure that can be taken.⁶ The following research question was created to compare the use of cognitive stimulation therapy to standardized intervention: What is the impact of cognitive stimulation therapy on the overall quality of life in older adults with dementia, Alzheimer's disease, or other cognitive impairments?

Process/Methodology

- **Research databases utilized to find information:**
 - EBSCOhost
 - Google Scholar
- **Search terms for relevant research:**
 - older adults, elderly, geriatric, geriatrics, aging, senior, seniors, older people, aged 65, 65+
 - cognitive impairment, cognitive dysfunction, cognitively impaired, dementia, Alzheimer's
 - cognitive stimulation therapy, CST, cognitive stimulation, reminiscence therapy, reminiscence, reminisce, life review, group therapy, counseling, group intervention
 - randomized controlled trials, RCT, randomized control trials
 - standardized intervention, treatment as usual
 - quality of life, wellbeing, well-being, health-related quality of life, occupations, daily living, ADL, activities of daily living
- **Inclusion criteria:** Included cognitive stimulation therapy as intervention vs. standardized intervention
- **Exclusion criteria:** Participants were <65 years of age
- These search strategies yielded 10 peer reviewed journal articles published between 2020 to 2024



Figure 1: [Reminiscence therapy to help with dementia](#)¹⁰



Figure 2: [The benefits of music therapy in geriatric care](#)¹²

Table 1. Articles used for research

Article	Assessments	Intervention	Comparison	P-Value	Significance
Carbone et al., 2021	QoL-AD	Cognitive Stimulation Therapy	Typical Educational Activities	N/A	Not significant
Elfrink et al., 2021	RAND-36 Cantril's Self Anchoring Ladder	Digital Reminiscence	Waitlist for Treatment as Usual	N/A	Not significant
Gao et al., 2020	CSDD	Group Reminiscence Therapy	Conventional Drug Treatment and Routine Daily Care	<0.05	Significant
Justo-Henriques et al., 2021	QoL-AD GDS-15	Individual Reminiscence Therapy	Treatment as Usual	0.957 0.983	Not significant Not significant
Justo-Henriques et al., 2023	QoL-AD GDS-15	Cognitive Stimulation Therapy	Treatment as Usual	0.000 0.003	Significant Significant
Kim, 2020	SGDS-K GQOL-D	Recollection-Based Occupational Therapy	Treatment as Usual	0.048 0.003	Significant Significant
Kor et al., 2023	QoL	Multisensory Cognitive Stimulation	Treatment as Usual	0.001	Significant
Moon & Park, 2020	K-CSDD	Digital Reminiscence Therapy	Conventional storytelling	0.002	Significant
Pérez-Sáez et al., 2021	QoL-AD GDS-15	Individual Reminiscence Therapy	Treatment as Usual	0.031 0.130	Significant Not significant
Xue et al., 2023	GDS-15	Music Therapy Intervention	Treatment as Usual	<0.001	Significant

Findings/Results

- Cognitive stimulation therapy (CST) is effective in sustaining cognitive and emotional functioning and reducing the progression of neuropsychiatric symptoms in people with cognitive impairments.⁵
- There are several kinds of reminiscence therapy including group, individual, and digital.
 - Group reminiscence therapy (RT) is effective in reducing depressive and neuropsychiatric symptoms and improving activities of daily living for Alzheimer's patients.^{3,9}
 - Studies regarding individual reminiscence therapy (RT) yielded varied results for effectiveness of intervention. One study found that results for individual RT were not significant in terms of quality of life and depressive symptoms.⁴ Another study found that individual RT was only successful in improving quality of life, not depressive symptoms.⁹
 - Digital reminiscence therapy is effective in reducing depression, improving memory recall, social participation, and quality of life.⁸
- Multiple forms of CST including multisensory cognitive stimulation therapy, recollection-based occupational therapy, and receptive music therapy (RMT) were all effective in improving quality of life and cognitive functioning.^{6,7,14}

Implications for Occupational Therapy

- Occupational therapists can use multiple forms of cognitive stimulation therapy when working with patients with cognitive impairments to:
 - Reduce symptoms of depression and increase cognitive function in patients with neurocognitive disorders through association, sequencing, and memory activities.⁵
 - Enhance quality of life in patients with dementia while reducing negative attitudes of caregivers towards them.⁷
- Reminiscence therapy can be used in occupational therapy to:
 - Reduce depressive symptoms of patients with Alzheimer's.³
 - Improve their quality of life through collaborative discussion.⁹
- Digital reminiscence therapy through multimedia tools can be used in occupational therapy to increase engagement, allow for collaboration, and improve overall accessibility to the activity.⁸
- Recollection-based occupational therapy interventions incorporating art and music allow patients to engage in occupations that are meaningful to them while promoting emotional regulation, self-efficacy, and increasing quality of life.⁶

Recommendations for Future Research

- Future research should explore whether other factors related to the individual, including age, gender, education, or motivation, and their dementia, including etiology or time since onset, influence a response to CST interventions.¹
- Monitoring of the long-term and lasting effects of the CST intervention on the participants over a longer period should be continued in future research.⁵
- In digital reminiscence therapy, men were more likely to recall political events, their job, etc. whereas women recalled familial events, therefore more research is suggested for a larger sample size of men and their response to remanence therapy.⁸
- Future research should explore the significance of music therapy as an intervention for cognitive impairment by exploring different types of music therapy as well as including registered music therapists in the process.¹⁰
- Prospective studies should research the effect of interventions focused on ADLs and instrumental ADLs in combination with cognitive therapies, such as reminiscence activities, effect on quality of life.¹³

Conclusion

Based on the prevalence of cognitive impairments in older adults, it was imperative that research explore a successful occupational therapy intervention.¹ A comprehensive review of 10 randomized control trials provided evidence that varying types of CST should be used with caution to improve overall quality of life in older adults with cognitive impairments. Several studies revealed that various types of cognitive stimulation therapy were beneficial in reducing neuropsychiatric and depressive symptoms.^{3,8-9,14} Other studies support that CST is effective in improving overall quality of life.^{6-8,14} Findings from this review can guide occupational therapists on what specific kinds of CST to utilize when targeting a specific outcome measure. Further research is needed to analyze if specific individual factors influence the effectiveness of CST and to monitor long-term effects of this intervention.^{1,5}

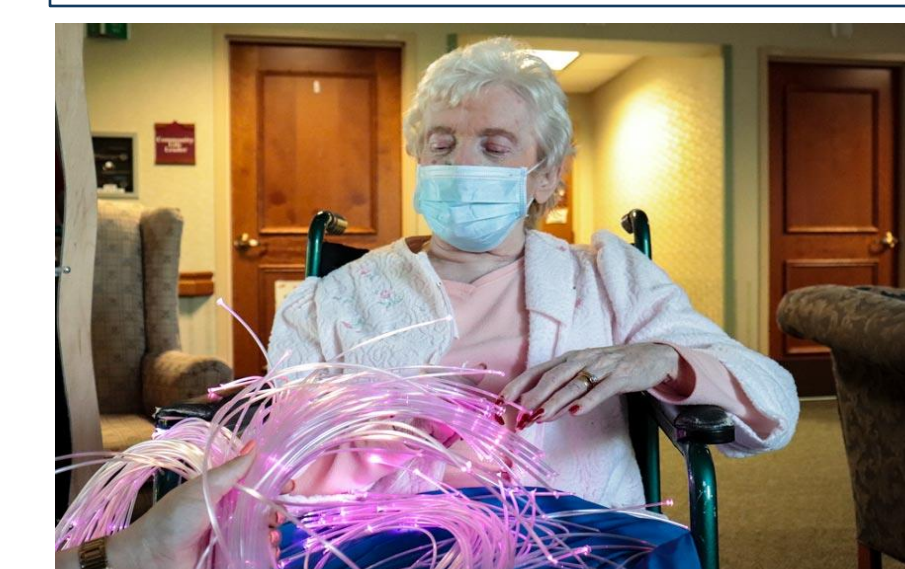


Figure 3: [Multisensory stimulation to improve quality of life](#)¹¹

References

