



Personalized Music in Adults with Dementia: Effects on Caregivers

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Background

- In 2014 the physical and emotional effects of dementia caregiving is estimated to have totaled 9.7 billion dollars in the US alone [1].
- There is substantial stress and burden on caregivers for people with dementia [2].
- Music therapy has been shown to have anecdotal positive effects on affect and behavior in people with dementia.

Objectives

- To examine the effectiveness of daily music listening on the behavioral symptoms of patients with dementia
- To examine perceptions of caregiver burden pre and post-personalized music intervention

Participants

- N=5 community dwelling older adults with dementia and their primary caregivers

Table 1. Caregiver Demographics, N=5

Age	74.2
Gender (Female)	5
Education	
Bachelors Degree	1
Masters	2
MD/Doctorate/Professional degree	2
Average Years of Care	6.4
Residence	
Home	3
Assisted Living	2
Caregiver relationship	
Spouse	4
Parent-Child	1

Materials and Methods

- Pre and Post- Measures
 - Caregiver Burden Inventory (CBI) [3]
 - Neuropsychiatric Inventory (NPI) [4] to assess participant behavioral symptoms
- Intervention
 - 20-30 minutes daily for 3 weeks

Results

Table 2. Caregiver Burden Inventory (CBI)

Baseline	Post Intervention	Difference	t-value	p-value
31.8	30.6	1.2	0.41	>0.05

- Paired t-test between the CBI_T1 and CBI_T2
- Correlation between CBI_T1 and NPI_T1, $r = -.31$, $p > 0.05$; and CBI_T2 and NPI_T2, $r = .81$, $p > 0.05$

Qualitative Results

- Reduction in CBI scores in 3 out of 5 caregivers
- Some caregivers reported that their loved ones were less agitated immediately after listening to the music.
- Some caregivers reported that they found the music intervention enriching and that it improved quality of life by helping to increase interaction between them and their loved one.

Limitations

- Small sample size (data collection is still underway)
- Participant adherence to intervention (schedule conflicts, forgetting to document or listen to music, technical issues such as charging i-Pod)
- Unable to account for change in disease severity or other health changes

References

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