

# Music Therapy in Dementia Care

Does the inclusion of individualized music therapy in the long-term treatment of moderate to severe dementia, in elderly patients over the age of 65, decrease levels of agitation and increase quality of life?

## Introduction

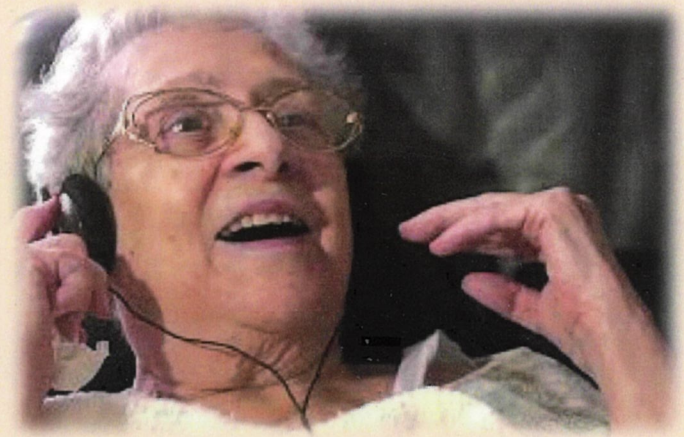
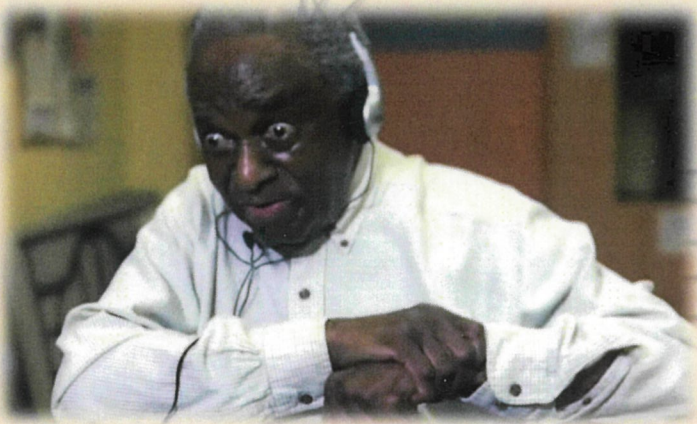
New Zealand has an aging population, with those aged over 65 years now at a 22% increase from 10 years ago (Statistics New Zealand, 2015). This generates an increase in health demands, one of the most prevalent being dementia, which has resulted in a call to investigate non-pharmacological therapies, such as music therapy, in order to manage patients without over-sedation and maintain a better quality of life (National Collaborating Centre for Mental Health, 2007).

## Music Therapy and Disease Progression

Dementia results in the atrophy of the hippocampus and temporal lobes of the brain, which are responsible for memory consolidation, processing sensory input and emotional association (Ridder, Wigram, & Ottesen, 2009). These are also the areas of the brain responsible for processing and responding to music. As dementia progresses memory loss and confusion worsen, however music stimulus has been shown to activate certain pathways in the frontal lobe, as well as prompting motor activity and memory recall (Wall & Duffy, 2010). The motor center of the brain responds to auditory cues, activating brain pathways and keeping them intact late into the disease progression due to requiring little to no cognitive processing.

## Music Therapy and Agitation

Agitation is one of the most significant factors of patient distress and caregiver burden, understood to be a reaction to unmet psychosocial needs. One study suggests that consistent, individualized music therapy significantly reduces agitation and disruption (Ridder, Stige, Qvale, & Gold, 2013). Another similar study showed a reported decrease in agitation both during and after music therapy, as well as a marked improvement in mood and participation in activities (Ridder, et. al., 2009). It also suggested a decrease in caregiver distress, indicating that music therapy is beneficial to not just the patient but to others involved in their treatment.



## Music Therapy and Quality of Life

Concomitantly with the effects on agitation, most of the literature also describes the effect of music therapy on the patient's quality of life. Dementia results in a loss of wellbeing and meaningfulness of life, with factors such as memory loss and communication difficulties resulting in loss of relationships and social isolation (Matthews, 2015). Evidence from multiple studies suggests that music therapy considerably improves anxiety levels, cognitive functioning and depressive moods. Music therapy has the ability to produce mental stimulation, an emotionally meaningful experience and a sense of cultural identity through memory recall, all of which contribute positively to a patient's quality of life (McDermott, Orrell, & Ridder, 2014).

## Recommendations

- Implement an increase in budget set aside for researching music therapy in dementia treatment, in order to investigate and accrue some statistically significant findings.
- Integrate music therapy into standard dementia treatment. Even with its limitations there is enough evidence to confirm that it is a beneficial therapy that comes at very little cost, financially and in resources.

## Conclusion

While recognizing the numerous benefits of music therapy, it should also be acknowledged that it has its limitations and shouldn't be seen as a method of treatment able to return a patient to their former self (Matthews, 2015). The conclusive results from the literature reflect the benefits of including individualized music therapy into dementia treatment, especially when considering the effects of agitation and over-sedation on a person's quality of life. This in itself should be significant enough for both the patient and the registered nurse to see its inclusion in non-pharmacological treatment options more readily.

Hayley Lotter

## References

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PECOT Model		
PECOT category	Information relating to question	Explanation
Population	Elderly over the age of 65 with a diagnosis of moderate to severe dementia.	This is the most common age for the development or exacerbation of dementia symptoms in New Zealand.
Exposure (intervention)	Elderly with dementia who have received individualized music therapy in their treatment.	The aim of this research question is to comparing those with dementia who receive individualized music therapy with those who did not and see whether this has an effect on their condition.
Comparison (control)	Elderly with dementia who had not received individualized music therapy in their treatment.	The control group will help identify whether the inclusion of individualized music therapy has an effect on the success of treatment or an improvement in dementia-related symptoms.
Outcome	Decreased levels of agitation and increased quality of life for the patient.	Since we want to know if individualized music therapy is effective in the treatment of dementia we want to measure changes in the common symptoms/outcomes of dementia.
Time	Long-term.	Dementia is a chronic disease without a consistent time period, so results will be collected based on long-term treatment in order to identify an effect.

## Summary

A poster presentation is one of the most utilized forms of presenting health information, especially at conferences and within the community (Ilic & Rowe, 2013). It is a valuable way of displaying extensive research or information in a succinct, easily interpreted, visually appealing manner. It also is a useful way of presenting information to the public as it can express important information in a way that catches the attention and appeals to those who may not otherwise be academically inclined. As well as this, poster presentations are a good way to actively involve those that are being presented to and encourage critical thinking. There is a two-way information exchange, the audience being presented to is more likely to question and analyze the information, and there is more of an opportunity for in-depth discussion related to their interpretation (Reba, 1979). It is an accessible, attractive, easily interpreted, and comprehensive method of knowledge transfer and presentation, which is why I chose to use it to present my findings.

I also intentionally chose the visual layout and aids that I did; both of the photos are clips from a documentary called *Alive Inside*, one of the most publicized investigations into the effects of music therapy on dementia. The photo of the man, especially, is one that is quite well known due to the popularity of the video clip he is in (Music & Memory, 2011). I used it to attract the attention of the audience by association; recognizing him would trigger their curiosity around where they had seen him before, hence drawing them into reading the information that is provided alongside it. The musical watermark in the background is also another visual clue into what the information on my poster is about, placed there to attract the attention of the audience without distracting them from the text.

Ilic, D. & Rowe, N. (2013). What is the evidence that poster presentations are effective in promoting knowledge transfer? A state of the art review. *Health Information & Libraries Journal*, 30(1), 4-12

Music & Memory. (2011, November 18). (Original) *Man in nursing home reacts to hearing music from his era* [video file]. Retrieved from <https://www.youtube.com/watch?v=fyZQf0p73QM>

Reba, R. (1979). Relative advantages and disadvantages of poster presentations at a scientific meeting. *Journal of Nuclear Medicine*, 20, 582.