

## Brief Summary

Research led by Dr Challinor in 2019 found that Moove&Groove music therapy program had positive mental health and physical health benefits as well as being a suitable program for those living with dementia.

Study 1:

Music to Your Ears: The Efficacy of Silent Disco in Reducing Risk Factors and Managing Symptoms of Dementia.

Results Summary:

The Moove&Groove program impact for mental health was threefold:

- **reduced loneliness,**
- **increased mood (specifically happiness); and**
- **showed promising indications that depression can be reduced.** (Simpson & Challinor, 2019\*)

Study 2:

A Feasibility Trial of Community-based Music Therapy Classes to Improve the Quality of Relationship Between Persons with Dementia and Their Carer's.

Results Summary:

**The music therapy program offered by Moove&Groove is suitable for the needs of people living with dementia and also their carers.** (Raymond & Challinor, 2019\*\*)

Study 3:

Silent Disco as a Form of Exercise to Decrease Negative Affect of Older Adults: A Pilot Study

Results Summary:

**The silent disco class were a fun way to workout with participants significantly increasing both heartrate and oxygen levels.** (Searson & Challinor, 2019\*\*\*)

\*Simpson, L., Challinor, K. L. (2019). Efficacy of silent disco in decreasing depressive symptoms and improving independence in people with dementia: a pilot study. *18th National Conference of Emerging Researchers in Ageing, Sydney 4-5 Nov 2019.*

\*\*Raymond, K., Challinor, K. L. (2019). A pilot testing if silent disco classes can improve the quality of relationship between persons with dementia and their carer's. *18th National Conference of Emerging Researchers in Ageing, Sydney 4-5 Nov 2019.* (Best poster award).

\*\*\*Searson, P., Challinor, K. L. (2019). Music therapy as a tool to reduce anger in older adults: a pilot study. *18th National Conference of Emerging Researchers in Ageing, Sydney 4-5 Nov 2019.*

**Music to Your Ears: The Efficacy of Silent Disco in Reducing Risk Factors and Managing Symptoms of Dementia. Lana Simpson & Kirsten Challinor.**

## Abstract

Dementia is the single greatest cause of disability in older Australians (Dementia Australia, 2019). Depression is a common co-occurrence with dementia, and music therapy (MT) has shown efficacy in reducing depressive symptoms in the short-term in a person with dementia (PWD; de la Rubia Ortí et al., 2018; Dementia Australia, n.d.-b). Furthermore, interventions involving exercise have shown efficacy in increasing independence in PWD (Rolland et al., 2007). Depression not only co-occurs with dementia, but is also a modifiable risk factor for dementia, as is loneliness (Bennett & Thomas, 2014; Sutin, Stephan, Luchetti & Terracciano, 2018). The first trial in the current study investigated the effect of MT in improving mood, depression and independence of three PWD over five weekly half-hour MT classes. Mood was assessed before and after class with a Modified Mood Scale, and depressive symptoms and independence were measured at the program level with the NPI-Q and Barthel Index, respectively. All three scales showed no demonstrable effects of MT due to missing data or floor and ceiling effects. However, the second trial with a group of 10 seniors across **three weeks of half-hour classes demonstrated significant main effect improvements in mood (in particular, happiness) and loneliness (R-UCLA), as well as some encouraging results for depression.** Overall, both trials provided valuable insights for future longitudinal studies with larger samples to characterise the exact potential of the MT program. It is posited the program could compliment other health strategies to reduce dementia risk factors relevant to older Australians.



**A Feasibility Trial of Community-based Music Therapy  
Classes to Improve the Quality of Relationship Between Persons with Dementia and  
Their Carer's.**

**Khiarn Raymond & Kirsten Challinor.**

## Abstract

Relationships between people with dementia (PWD) and their family caregivers often deteriorate under the stressors of caregiving and the increase of PWD's dependence on the carer. Music-based therapy has emerged as a novel intervention for maintaining emotional wellbeing, quality of life and social behaviour for people living with dementia. The current study assessed the feasibility of running a relationship-focused music therapy class for PWD and their carers. Five, free, weekly 30-minute classes were held in a community hall. The measures of relationship satisfaction, carer burden, PWD neuropsychiatric symptoms and carer distress trialled at pre, mid and post-intervention were found to be appropriate for capturing dyad differences. **The PWD music therapy program was suitable for the needs of three PWD and their carers**, however improvements to facilitate relationship bonding during classes may improve fidelity to relationship theories and enhance the carer's benefit. The protocol's greatest challenge was recruitment of carer-PWD dyads in a five-month timeframe. In order to test further aspects of feasibility, the study collected additional data from a convenience sample of three older adult couples in a parallel music therapy class. The adapted recruitment strategy (seven weeks) of face-to-face information sessions and utilization of a Sydney venue familiar to participants, was very successful. The study is conditionally feasible as specified in nine conclusive guidelines that recommend reasonable adjustments. Addressing these guidelines will ensure the success of a larger scale community-based music therapy study to test the relationship quality between PWD and their family carers in Sydney, Australia.

**Silent Disco as a Form of Exercise to Decrease Negative Affect of Older Adults: A Pilot Study**  
**Patrice Searson & Kirsten Challinor**

## Abstract

In 2017, there were 3.8 million Australians over the age of 65, this accounted for 15% of the total population. Older people (>65 years old) are more at risk of experiencing negative affect symptoms (e.g. depression, anxiety, aggression) and have higher rates of disability. In particular, aggression can contribute to cardiovascular diseases and the adoption of unhealthy lifestyles. Aggression has also been associated with developing type 2 diabetes and obesity. Exercise has been shown to enhance mood, reduce stress and protect the brain from the harmful effects of ageing for an older population. Research has shown that older populations engage more in group-based physical activities. As such, Music Therapy could be beneficial, with individuals being guided by a qualified professional to sing, move, listen to and/or create music. The aim of this pilot study was to investigate whether exercise in the form of a silent disco classes decreases negative affect symptoms in an older population. 10 older adults attended silent disco classes once a week, for four weeks at the Enagdine Bowling Club. Data was collected for three of the weeks. Participants completed the Depression Anxiety and Stress Scale and the Buss and Perry Aggression Scale Short Form after class. During the class, engagement in the activity was observed via the Midas Engagement Scale (2014). Heart rate (BPM) and oxygen saturation levels (SPO2) were recorded pre and post class. **Two-way ANOVAS revealed BPM and SPO2 levels increased post class.** One-way ANOVAS revealed that the intervention did not decrease negative affect. Additionally, engagement in the intervention was not significantly correlated with any variable. Logistical challenges related to recruitment of the pilot were many. With a longer intervention and greater sample size, future research could further investigate whether exercise in the form of silent disco can decrease negative affect symptoms.