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# Introduction

• For Alzheimer disease (AD) patients, music Intervention (MI) heals episodic memory & reduces agitation symptoms.<sup>1</sup>

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- Observational coding system quantitatively measures emotional reactions and assesses patient engagement
- This is the first event-based coding scheme to assess AD patients' engagement & disengagement for MT.

# Methods

## **Musical Intervention**

Environment Quiet, comfortable room with appropriate lighting & tested audio equipment

Made with 🟈 Whimsica

Intervention Emotionally resonant music tracks played, with brief introductions & consistent volume

Measurement Trained facilitators monitored participant engagement and record videos of the session.

### Inter rater reliability

### Rater 1

- 4 hours of coding
- 95 instances
- Arm swinging was the most
- frequently observed.
- All three of the disengagement behaviors seen.

• Both coders found participant 5 the most engaged. • Both found participant 1 to be the least engaged. • Major movements were seen as the most frequent.

### Rater 2

- 4 hours of coding
- 87 instances • Standing up was the most frequently observed.
- Zoning out and falling asleep were observed.

# MEASURING ENGAGEMENT WITH MUSIC IN DEMENTIA PATIENTS





**Figure 1**: Frequency of Reactions/Event occurrences in Video Coding process



Figure 2: Percentage of Time Spent on each Reaction by Residents



### Under this coding scheme,

### Limitations:

### Future Directions:



# Conclusion

• Engagement analysis via video coding is applicable. • Well-defined coding scheme can yield reliable results.

 Participant's positions can obscure features. • This study has only examined one video so far.

 Additional videos will be examined to improve reliability. Disengagement behavior will be more clearly defined

## References

