

Poster Title:

Short Term Effects of Rhythmic Sensory Stimulation in Alzheimer's Disease.

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Abstract:

This pilot study assessed the effect of Rhythmic Sensory Stimulation (RSS) in 18 participants with Alzheimer's disease (mild, moderate and severe). The AB cross-over design involved Treatment A: 6 sessions of RSS, and Treatment B: 6 sessions of visual stimulation provided via DVD. The NextWave Physicoacoustic chair was used to provide the 40Hz sinewave stimulation. Outcome measures included: the St Louis University Mental Status Test (SLUMS), the Observed Emotion Rating Scale, and behavioural observation by the researcher. The hypothesis was that 40 Hz sensory stimulation would drive neural rhythmic oscillatory coherence at the 40Hz gamma level and, potentially contribute to improved cognition in people with AD. Results were strongly positive and demonstrated that upon completion of each of the RSS sessions, participants' average SLUMS scores rose by 0.58 (calculated effect size) for a gain of 12% of the total SLUMS score over the course of the treatments; whereas there was no change in SLUMS scores post visual stimulation treatment. Additional research is needed and future studies are being planned.

Authors' backgrounds:

Amy Clements-Cortes is Assistant Professor, Music and Health Research Collaboratory, University of Toronto; Music Therapist, Baycrest, Instructor, Wilfrid Laurier University; WFMT President; and Managing Editor Music and Medicine.

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