Effect of Music Therapy through Teacher Intervention for Students with Autism
Margaret Darko, Jennifer Han, Paulina Paras, Amber Wolf (2017-2018)

RESEARCH QUESTION
What are the effects of the Voices Together Teacher Toolbox on 1) students with autism and 2) their teachers?

BACKGROUND

AUTISM SPECTRUM DISORDER (ASD): Range of symptoms characterized by repetitive behaviors and challenges with social skills and speech

MUSIC THERAPY: Yields improvements in language and social abilities in children with autism

VOICES TOGETHER (VT): Music therapy program based in central NC. Combines educational techniques and music to empower people with mental disabilities. Implemented by professional music therapists weekly

TEACHER TOOLBOX (TT): Program that trains teachers in both the theory behind the VT intervention and the music tools necessary to incorporate VT into their classrooms daily

EXPERIMENTAL DESIGN

SUBJECTS: 9 Special Education elementary classrooms in North Carolina
Control: VT n = 4
Experimental: TT n = 5

STUDENT MEASURES: Track improvements in language and social abilities throughout program
Probes: behavioral assessment that measures social and language ability at 4 points throughout intervention

TEACHER MEASURES: Gauge teacher experience prior and throughout Toolbox training
Teacher practices survey: Teachers’ background demographics and prior knowledge on teaching practices

RESULTS

Student Outcomes in TT vs. VT over time:
TT: slow improvement T2-T3 → increased improvement T3-T4
VT: steady improvement across intervention

Interpretation:
Change in rate of improvement associated with teachers’ increasing familiarity and understanding of the TT program over time

**Discrepancy in baseline measures explained by previous exposure to VT music therapy by students in TT group

Teacher Practices Survey Analysis:
Differences in most student outcomes by varied teacher backgrounds were not significant
Teachers who had obtained their Master’s Degrees had students who improved in Expressive Language over the year compared to the students of teachers who had stopped their education at a Bachelor’s Degree

Teacher’s Degree vs. Expressive Language Score

PRELIMINARY DATA SHOW:
Positive responses to TT training, however nuanced associations are not yet fully understood

FUTURE DIRECTIONS:
Further analyze student probe data and teacher outcome variables to quantify program efficacy and understand complexities; Adapt TT program accordingly

IMPLICATIONS:
Provide special education teachers with a cost-effective and relatively simple way to improve student outcomes without the need of a music therapist

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REFERENCES