Music Therapy, Communication & Movement

Aaron Wallace, Community Partner
Carolyn Wallace, MA, Community Partner
Corie Sexton, MS, CCC-SLP, UK HealthCare
Jennifer Jarred Peyton, MM, MT-BC, UK HealthCare
Cecilia Wright, MT intern, UK HealthCare

Introductions

- Aaron Wallace
 - Community partner
 - Graduate of Madison Southern High School
 - History of MVA in 2011
- Carolyn Wallace
 - Community Partner
 - Parent of Aaron Wallace
 - "Body Ready" Fall Prevention Practitioner

- Corie Sexton
 - Speech-Language Pathologist, UK Outpatient Communication Disorders Enterprise Clinic
 - ► SLP for Aaron since 2014
- Jennifer Peyton
 - Music Therapy Internship Director, UKHC
 - Collaborates with UK
 Outpatient Communication
 Disorders Enterprise Clinic
- Cecilia Wright
 - Music Therapy Intern, UKHC

Severe Traumatic Brain Injury, April 2011

- Survival Unlikely
- UK Trauma Care Meds & Surgery
- Nothing more we can do
- ICU, Acute Long Term Care: 4 mo.
- Ventilator weaning not expected
- Minimal Consciousness
- No quick medical/surgical fix
- No progress expected after 1 year
- Lack of purposeful movement
- Guarded Prognosis

- Neuroplasticity
 - Stimulation
 - Response
 - Reinforcement
- We don't know, yet why not try?
- Positive Energy is Essential
- Need a Supportive Team
- It's a Long Process
 - Caregiver Self Care
- Search for Helpful Strategies

Conventional Treatments (Insurance pays)

- Initial Hospital Care & Rehab Stay
- ► M.D. & Specialists In/Outpatient
- Therapies (requiring approval)
 - Speech and Language Pathology
 - Physical Therapy
 - Occupational Therapy
 - Vision Therapy
- Equipment (requiring approval)
- Transportation to appointments

Personal care in a facility

OR

- At home supports through a KY Medicaid Waiver
 - Some supplies
 - Some caregiver assistance
 - Some home renovations

Alternative - Complementary Therapies

- Prayer
- Positive Energy
- Nutritional Supplements
- CranioSacral Work
- Massage Therapy
- Acupuncture
- MNRI
- Music
- Humor

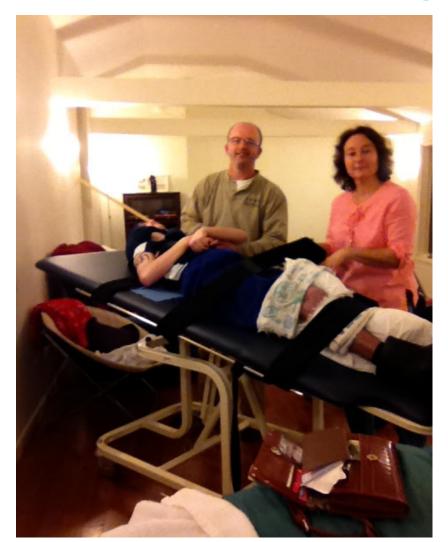
- Music Therapy
- Therapeutic Horsemanship
- Vision Therapy
- Social Interaction
- Warm Water Pool Activity
- Movement Experiences
- Chiropractic (gentle)
- Reiki Jin Shin Jyutsu
- Pet Therapy





Home for Christmas 2011

At Home 2-2-12 and 5-19-13





Outpatient Therapy 2012-2013







Rough Day Seizures Setback

6-15-2013



Music Therapy in the Hospital 6-20-2013





What is music therapy?

- Use of live, patient-preferred music by a board certified music therapist to accomplish non-musical goals; such as the physiological, cognitive, emotional, social, and spiritual needs of individuals of all ages.
- MT in rehabilitation settings focuses on functional communication, motor skills, motivation, and quality of life.
- Music therapy is not entertainment.
- Music skills are not required to benefit from MT

Objectives

Identify interventions used in collaboration between music therapy and speech therapy

Utilize music therapy to improve motivation and skill development for neurologically involved clients/patients

Analyze the effectiveness of music therapy in accomplishing treatment goals and enhancing communication

Why collaborate?

5 similarities between music and language:

- Music and language are universal and specific to humans.
- Both have pitch, timbre, rhythm, and durational features.
- Spontaneous speech and spontaneous singing typically develop within infants at approximately the same time.
- Music and language have auditory, vocal, and visual uses (both use written systems) and are built on structure and rules.
- Distinct forms of music and language exist and vary across cultures,

(Smith, 2011)

Speech with Music Therapy





What does collaboration do for individuals with ABI?

- Both music and language convey meaning
- Brain processes melodic and temporal structures in absence of attention
- Both target motor processing/sequencing mechanisms
- Music allows ways to build rapport/relationships; build therapy structure and routine
- Provides alternative methods of reinforcement
- Increased imitation of nonverbal gestures

(Farmer, 2013; Barman, Chatterjee, & Bhide, 2016)

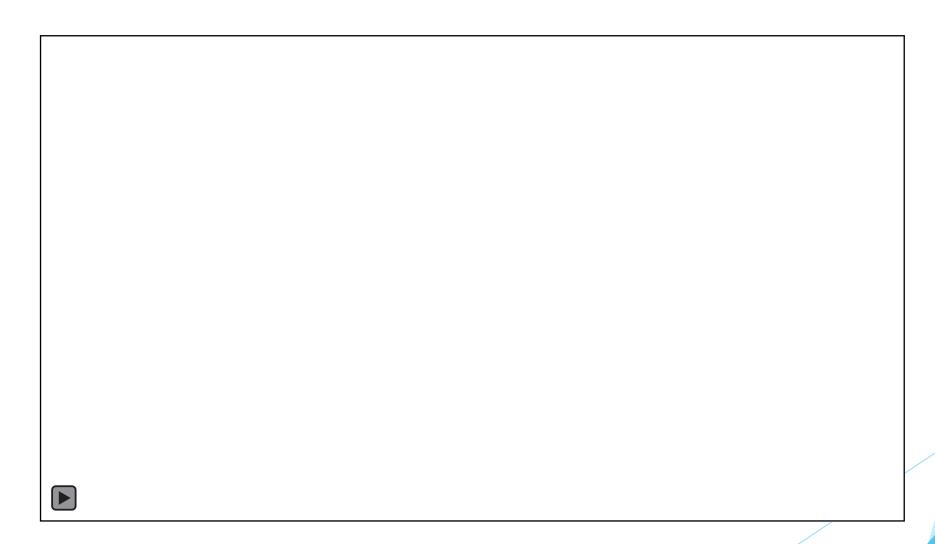
A typical session

AARON'S TASK / GOAL	SPEECH THERAPY GOALS	MUSIC THERAPY INTERVENTIONS	GENERALIZED OT AND PT GOALS
 Greet others with: Vocal output and/ or SGD (Speech Generating Device) Gestures (wave, fist bump, eye contact, smile) 	 Monitor/Teach: Appropriate eye contact with communicator Initiation of SGD use (greeting others, sharing jokes, etc.) 	 Model desired behavior: eye contact, wave, fist bump, say "hi" Encourage and provide reinforcement for desired behavior 	 Use of left/right UE to complete functional task Holding head up with minimal assistance
Communicate desired activities (listen to Spotify, listen to live music, play along, sing, instrument or genre selection)	 Choice making Identification of locations/buttons Accurate transitions between SGD screens Sentence formulation, commenting, requesting (via SGD) 	 Provide choice making opportunities Provide reinforcement of desired activity Contingent music for targeted behaviors 	 Head control Trunk support Participation in activity for extended time UE movements

A typical session

AARON'S TASK / GOAL	SPEECH THERAPY GOALS	MUSIC THERAPY INTERVENTIONS	GENERALIZED OT AND PT GOALS
Participate in "Warm-Up" song	 Vocal Output (prolongation, breathing, etc.) Shaping vowels for speech production 	Created original song to facilitate ST goalsContingent music	Head controlTrunk support
Play the drums (and other instruments)	 Increase accuracy for direct selection use with SGD 	 Move drums to various areas to increase Range of motion Accuracy Fine and gross motor movement 	Head controlTrunk supportIncrease volitional UE movements
Play the keyboard	Letter identificationSimple spelling	 Label keys with letters Demonstrate rhythm to play, cue playing Provide reinforcement 	 Increase volitional UE movements Engage in simple task while sitting for extended time

Up & Up 7-28-2014



References

- ▶ Barman, A., Chatterjee, A., & Bhide, R. (2016). Cognitive Impairment and Rehabilitation Strategies After Traumatic Brain Injury. *Indian Journal of Psychological Medicine*, 38(3), 172-181.
- Farmer KJ. (2003). The effect of music vs. nonmusic paired with gestures on spontaneous verbal and nonverbal communication skills of children with autism between the ages 1-5 (Master's thesis). Tallahassee, FL: Florida State University (School of Music), 2003.
- Smith, R.S. (2011, October, 4). Speech-Language Therapy and Music Therapy Collaboration: The Dos, the Don'ts, and the "Why-Nots?" [The ASHA Leader Blog]. Retrieved

Thank you!

Feel free to contact us with any questions, comments, or concerns:

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