

Utilizing Music and Movement Treatment Strategies to Develop Social Communication Skills

Erica Bland, M.S., CCC-SLP
 GSHA Annual Convention
 Saturday February 10, 2018
 2:00–3:00 p.m.

2 Financial and Non-Financial Disclosure

- **Financial Disclosure:** I am the producer / owner of *The Friend Ship* music CD and accompanying activity workbook and I will be presenting activities from my CD / workbook that encourage teaching social communication skills through music. I receive financial compensation from the purchase of these items.
- **Non-financial Disclosure:** I am not being paid by any organization to make this presentation.

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What will I learn?

- Multimodal learning facets
- Areas of the brain stimulated by music and movement
- How music and movement activities impact learning
- Types of social communication skills that can be targeted through music and movement
- Practical strategies for teaching social communication skills with music and movement

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By the end of this course you will be able to....

- Define the benefits of multimodal learning in the development of social communication skills.
- List the areas of the brain that are activated during music and movement activities.
- Identify and utilize practical music and movement activities to support a range of social communication concepts.

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Kyoshiworld.blog.cz

“Music is a medium that involves a complex range of expressive qualities, dynamic form and dialogue, and offers a means by which some form of an alternative communication can be established to help achieve engagement, interaction, and relationships”
(Wigram 2005).

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Michael Yang

Multimodal Learning

The Multiple Intelligences Theory by Howard Gardner


- Human beings have different intellectual strengths
- They range from visual-spatial, hands on, auditory, deep philosophical thinking, verbal-linguistic, and musical
- The goal is to present information in a way that a child finds interesting
- Activating a range of sensory systems engages the learner in order to recreate and transform information in the mind

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Different types of multimodal input

- Sensory systems involved in multimodal learning
 - Auditory
 - Tactile
 - Kinesthetic
 - Vestibular
 - Proprioceptive
 - Oral Motor



Consumer Behavior, 2017

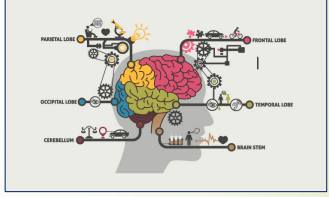
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So how do we learn?

- “According to Tech News, the breakdown of learning styles varies but a typical K-12 classroom contains...”
 - 30% visual learners
 - 25% auditory learners.
 - 15% kinesthetic learners
 - 30% mixed learning styles

(Dyslexia Victoria Online, 2017)



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What parts of the brain are activated by language?

- **Broca's area** – controls speech
- **Wernicke's area** – controls language and comprehension
- **Frontal and temporal brain regions** – controls hearing, language, memory

“Given the connections between the frontal and temporal regions, these anatomical pathways may serve to integrate sensory information with motor planning, preparation, and actions areas that is crucial for language representation and operations” (Wan & Schlaug, 2010).

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What parts of the brain are activated by music?

- **Auditory cortex, temporal lobe** – analyzes volume, pitch, speed, melody, rhythm
- **Frontal gyrus, cerebrum** – helps remember lyrics to songs
- **Cerebellum**
- **Limbic system**
- **Corpus callosum**
- **Motor cortex**
- **Nucleus Acumens**
- **Sensory cortex**
- **Hippocampus**
- **Visual Cortex** (Kassem, N. 2017)

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Neuroimaging research shows that music and language show overlapping responses in the brain.

(Wan & Schlaug, 2010)

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What parts of the brain are activated by movement?

- **Supplementary Motor Cortex**
- **Primary Motor Cortex**
- **Posterior Parietal Cortex**
- **Premotor Cortex**

(Schwerin, S. 2013)

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Music, movement, and learning

“Research supports connections between speech and singing, rhythm and motor behavior, memory for song and memory for academic material, and overall ability of preferred music to enhance mood, attention, and behavior to optimize a student’s ability to learn and interact” (American Music Therapy Association, 2010).

Skills that benefit from music and movement therapies:

- Attention
- Cognitive functioning
- Social interactions
- Auditory processing
- Speech
- Expressive language
- Literacy skills including pre-writing and recognition

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What does the research tell us?

Music therapy is highly effective in improving a range of social communication skills in children with autism including:

- Joint attention
- Sustained and alternating eye gaze
- Responding to social bids
- Increased participation in social interactions
- Turn taking
- Flexibility
- Awareness of emotional expression

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Studies that show this...

- In two Randomized Controlled Trials (RCT), comparing educational intervention with children with autism using music versus no music targeting correct imitation of words and signs, results indicated a significant difference in favor of music therapy. (Wigram & Gold, 2005).
- In a study by Kim, Wigram, and Gold (2008), comparing the effects of music therapy vs. play therapy, music therapy was found to be more effective in facilitating a longer duration of turn-taking, increased initiation and alternating eye gaze, as well as joint visual attention.
- In a case study conducted by Greist et al. (2008) of a four-year-old with Global Developmental Delay, an integrated speech therapy and music therapy treatment program, yielded positive results with an increase in social participation and gestural greetings, as well as reduced off-task behaviors.

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Continued Research...

- In a meta-analysis by Gold et. Al (2006), music therapies that involved singing and music making revealed significant improvements in the areas of nonverbal, verbal, and gestural communication skills in children with autism spectrum disorder (Srinivasan & Bhat, 2013).
- In a Cochrane’s review in 2014, overall results from a range of research studies indicated that music therapy interventions aide in improving “social interaction, verbal communication, initiating behavior, and social emotional reciprocity” (LaGasse, 2017).
- Heaten et. al research surmised that while children with autism have difficulty processing and their own emotions, they can effectively perceive emotions in music (1999).
- In a review of the research on children with autism, Wigram & Gold identified that music therapy can impact a child’s ability to be more flexible whereby “music contains different levels of structure, yet provides the variability and flexibility needed to counteract the more rigid characteristics of the pathology (2005).

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How do we integrate music and movement in therapy?

- Think about the activities in your therapy session where you can integrate music
 - During transitions between activities
 - During a body / sensory break
 - As part of a structured activity when targeting specific skills
 - Turn taking with an instrument
 - Freeze tag with music for eye contact, facial expressions
 - Taking turns singing / playing an instrument back and forth to target reciprocal interaction

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Think about it....

- Take two minutes to talk to the person next to you about a specific child or group of children and at least one place in your session that you could incorporate music.
- And go....

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Let's talk treatment strategies

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Using songs in therapy

- Things to remember**
 - Message in the song should be repetitive and simple
 - Pair a song with an activity or transition
 - Consistently provide the song during every treatment session so that it becomes predictable and familiar
 - Pick key words to emphasize while the song is playing
 - Try to choose songs that are shorter in length
 - Modulate the volume when the song is playing so that it's not overwhelming

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The Friend Ship

Songs to encourage social communication and emotional regulation in young children

- A music CD with a companion booklet with activities for parents and professionals to utilize in conjunction with the songs
- **Nine songs with target concepts including:**
 - Eye contact
 - Turn taking
 - Using emotional language
 - Self-calming strategies
 - Joining in with play
 - Using words to connect
 - Adding to the fun of the group



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Sample Activities from *The Friend Ship*



- **Song: "Find Me With Your Eyes"**
 - While playing this song, stand with your child / client and begin dancing to the song. When the chorus, "Find me with your eyes" plays, pause the song and look at each other or if it is a group, encourage children in the group to find another child in the group to look at. Or, keep the song playing and each time the child hears the chorus they pause and find someone to make eye contact with.
- **Song: "Join In And Play"**
 - Role-play different ways to join in and play while the song is playing. Grab a prop, such as a ball and when the chorus plays, have your client / child face you, make eye contact, and say, "That's a cool ball," or "Can I play ball with you?" If you have a group of children facilitate this interaction between other members of the group.

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Contact Information

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- **The Friend Ship CD / workbook**
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Resources

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Resources Continued...

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