



Music and Autism – Where Words Fail, Music Speaks

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Although this seminar is intended to teach others the treatment strategies used daily by Rachel in an early intervention program, materials are occasionally used as demonstrations ONLY for the purpose of showing others how to create their own materials in their work. No techniques taught during this session require any purchased materials to implement.

- I have no relevant *nonfinancial relationship(s)* to disclose.
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Music and Autism – Where Words Fail, Music Speaks

- Purpose Statement –
- The use of music to teach children with autism is widely accepted as a valuable therapy tool. This program gives an overview of how music can be used to promote speech and language skills in therapy and at home. Get practical strategies for using music and songs to promote growth in attention, engagement, social skills, imitation, following directions, answering and asking questions, commenting, increasing vocabulary, and learning daily routines.



**“Music rearranges your
molecular structure.”**

-Carlos Santana





What is happening in the brain?

“Musical activity involves nearly every region of the brain that we know about, and nearly every neural subsystem.”

Daniel Levitin

“Far more than language, music taps into primitive brain structures involved with motivation, reward, and emotion.

Daniel Levitin



Why would music benefit speech and language?

- Patel hypothesizes that musicians have neural plasticity with these conditions: OPERA
 - Overlap – Brain networks where speech and music are processed similarly such as how we perceive sound.
 - Precision – Music precision places high demands on brain networks.
 - Emotion – Music creates positive emotion.
 - Repetition – Music creates extensive repetition.
 - Attention – Music creates focused attention.



Why would music benefit speech and language?

- Musical training leads to changes in the auditory system. (Nina Kraus)
- The pattern of beats in music and the ability to read are closely linked. (Goswami, Huss, et al.)

“Music is a pleasurable boot camp for auditory processing.” Aniruddh D. Patel



If there is any reason
to use music in our work,
EMOTION is it!

- Music moves us emotionally.
 - Music is a euphoric-inducing stimulant.
 - Memory is enhanced by how much we CARE about something
 - Caring leads to attention, alertness, mood, and neurochemical changes

For arousing feelings and emotions, music is better than language. The combination of the two – as best exemplified in a love song – is the best courtship display of all. Daniel Levitin



What Do Children With Autism Need?

- Early and intense intervention
- Family participation
- Goals focused on:
 - Joint attention and gestures
 - Play skills
 - Functional and spontaneous communication
 - Social skills

Can music be a catalyst to improve these skills? Absolutely!

The Connection to Kids and Families



- Intervention is first and foremost about the CONNECTION!
 - Give children and parents things they can do together.
- Sing a simple song that kids can simply sing!
 - Let the parents and siblings of your students teach you.
 - ♪ Parent creations: I Love You Baby. Her Name is _____.

This is Nora. Her mom taught me a lot!





Music for Children With Autism

(Sing to the tune of Rockin' Robin)

*Attention, Engagement,
Play with YOU!*

*Learn Words, Take Turns,
and Imitate too.*

*Follow Directions, Answer,
and Ask.*

*Social Skills and Daily
Tasks.*



Oh yeah! Treating ASD

Oh yeah! Try rhythm and melody

Oh yeah! Treating ASD

Rhythm, rhyme, and melody



Music is simply a tool for embedding recommended therapies

As we speak of using music, one must be aware that speech-language pathologists should not view it as a therapy approach or a methodology. We are not trained nor have we specifically studied music as an evidence based practice.

Music, on the other hand, should be viewed as a tool for using existing and recommended treatments such as applied behavioral analysis, focused language stimulation, and various techniques for stimulating speech sound production, imitation, joint attention, and interaction. The relationship of music to speech and language therapy is that music is simply a modality to use with children and families in the same way that we would use pictures, motor movements, games, gestures, and/or cueing.



Components of a verbally enticing song

“Sing a simple song that I can simply sing!”

- Frequent repetition.
 - Chains of three (Baby Blowing Bubbles)
 - Interludes of CV practice and sound effects
 - Focused language stimulation – Repeat and high interest
 - Sing them over and over and over
- Exaggerated and extended sounds and words. (Milk and Juice)
- Language or sounds within a child’s verbal ability.
- Slower rate – higher pitch.



Components of a verbally enticing song

“Sing a simple song that I can simply sing!”

- Songs that invite participation.
- Universal chant/ rhythm. (also “Shave and a Hair cut rhythm)
- Songs have a distinct beginning, middle, and end. This is crucial for children with autism.
- Analyze the gross motor components related to speech components of a song.
- Using visuals and props can enhance but can also detract from speech practice.



Attention and Engagement

Use activities with a clear beginning, middle, and end.
Wait for the child to request the activity again – but don't wait too long. It's an art. 😊

Props can keep a child with the activity, but can deter from the mutual enjoyment and visual connection with you.

- ♪ I Am Swinging: Use a blanket.
- ♪ Fishie in the Water: Use a prop for requesting more.
- ♪ Row Your Boat: New lyrics. Child and parent facing each other.
- ♪ Here Comes the Mousie
- ♪ Bouncy or Brinca: Child on your lap or on a large ball.
- ♪ Horsie, Horsie Go to Town: Child on your lap.

Attention and Engagement



- Try Animal Face Masks to increase eye contact and engagement

♪ Who Are You? – Tune of 99
Bottles of Pop



- Frequent favorites (Ask parents)
 - ♪ Ring Around the Rosie
 - ♪ ABC Song
 - ♪ Wheels on the Bus
 - ♪ Five Little Monkeys



Play With YOU!



- ♪ Spontaneous Song (Shortnin' Bread): Universal chant and rhythm.
- ♪ Musical phrases: Uh oh, knock knock, No no no, Where are you?
- ♪ Ball, Ball, Ball: Great for releasing objects. Vary the ball, cotton balls, use a tube. The power of rock and roll.
- ♪ In, Out, Up, Down: The joy of rap!
😊
- ♪ Puppy Song: All children have their own stuffed animal to act out the motions.



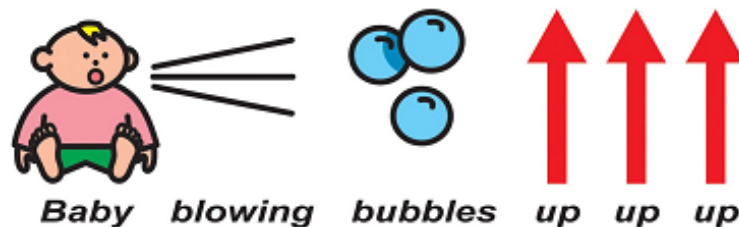
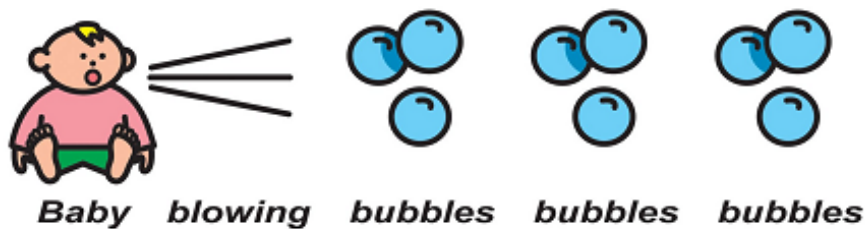
Learn Words, Take Turns

Focused Language Stimulation is frequent in many children's songs.

♪ Making up your own: Simplicity and gestures, Cookie Song, Baby Blowing Bubbles

- Video Modeling
- Visuals
- Printed Word

Baby Blowing Bubbles Imitation Station CD TRACK 9



Go, go, go

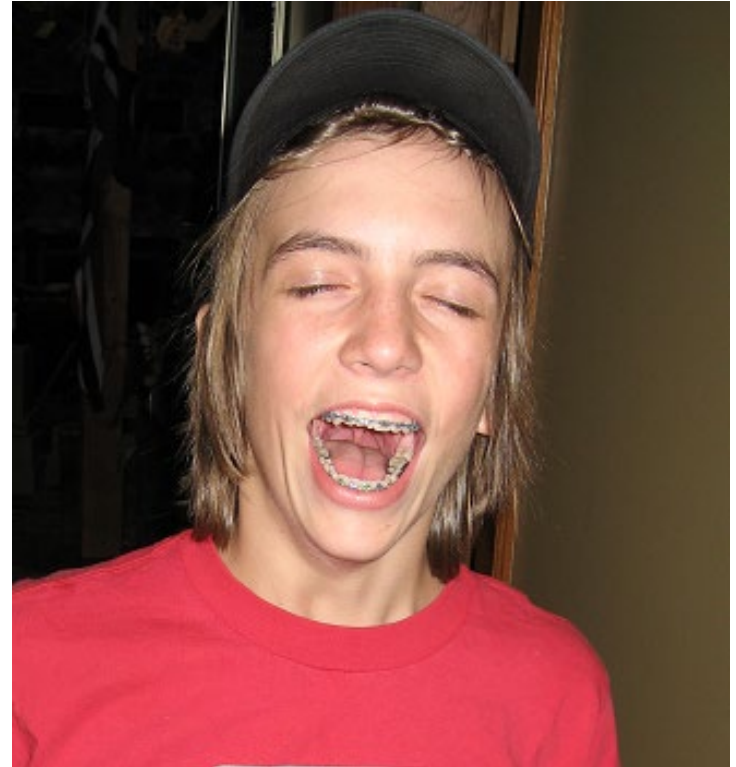


in my wagon.



Imitate, too.

- Music increases imitation skills and vocabulary use. (Buday, 1995, Alvin and Warwick, 1991)
- Can children sing and do motions at the same time? This varies, depending on the complexity of each. Getting both is an achievement!





Imitate, too.

- ♪ Roly Poly: Love this for my young students.
- ♪ Walking Elephants.
- ♪ Hippo Song.
- ♪ Shake and Wave: Use a scarf.
- ♪ If You're Happy and You Know It:
- ♪ Eyes, Nose, Mouth, Toes (Tune: Mexican Hat Dance): Wonderful tune.





How should we evaluate the songs we use, especially for word imitation?

When critiquing songs to use with children, one should analyze each one based on what techniques are embedded within them.

- Are the words repeated often?
- Are there instances where problematic consonants are exaggerated or lengthened to give children additional time and emphasis on them to increase production of those sounds?
- Do the songs give children invitations to practice repetition of the words or sounds or imitation of motor movements?
- Do they follow a sequence of working on a sound in isolation, in consonant-vowel structures, in chains of CVCV structures, in words, and then in phrases?
- These are some of the many questions this presenter asks before using any music with a child.



Songs for Vowel Imitation

- **Vowel song - Pictures, cues, video modeling**
Drop your jaw. Say ah, ah, ah. (Ah, ah, ah, ah, ah)
Round your lips. Say oh, oh, oh. (Oh, oh, oh, oh, oh)
Now smile like me. Say ee, ee, ee. (Ee, ee, ee, ee, ee)
Pucker real tight. Say oo, oo, oo. (Oo, oo, oo, oo, oo)
Ah, ah, oh, oh, oo, oo, ee. Now you can sing that with me.
Ah, ah, oh, oh, oo, oo, ee. Great job, kids, singing with me.
- **Vowel song (tune Skip to my Lou)**
Ah, ah. Ah ah ah. Oh, oh. Oh oh oh. Oo, oo. Oo oo oo.
I can say them. You can, too.
Ah, ah. Ah ah ah. Oh, oh. Oh oh oh. Ee, Ee. Ee ee ee.
You can say them. Sing with me.



Imitation of CV, Words, and Phrases

- CV song – Na, na, na (Rock and Roll)
- Focused language stimulation – Use songs that repeat the target words. Use visuals to enhance learning.
 - Puppy, puppy, puppy. Puppy won't you play with me.
Puppy, puppy, puppy. I love my puppy.
- Open ended sentences that rhyme.
 - I love bubbles. I love rocks. I blankies. I love socks.
I love pickles. I love cheese. I love orange freshly squeezed.



Follow Directions,
Answer, and
Ask



Follow Directions



- Use common tunes to make up your own songs
 - ♪ Mary Had a Little Lamb
 - ♪ There's a Hole in the Bucket
 - ♪ Talk It Rock It instrumental-only tracks. (Rockin' Robin)





Respond to Questions

- Music is a cue
 - ♪ What's That?
(Skip to My Lou tune);
Repetitive, use pictures
or actual objects.
 - ♪ What Happened?: Natural musical flow of
phrases.
 - ♪ Hooray!: Use animal face posters.





Social Skills and Daily Tasks

- Greetings

- Hi: Use flashcards, books

- Bye: Repetition of lyrics.

- _____ is Here Today:
Slap hands on your lap.

- Someone's in the Window: Use picture frames, blankies, etc.



Hi

Vocalocomotion CD TRACK 2



Hi



puppy



shoe



kitty



you



baby



bee



apple



tree



monkey



bear



plane



chair



table



sun



car



All done!



Social Skills and Daily Tasks

- Daily Tasks

- ♪ Wash Your Hands
- ♪ It's Time to Get Dressed
- ♪ I Can Put My Jacket On
- ♪ I Brush My Teeth
- ♪ Dentist Day
- ♪ Haircut Day
- ♪ Fire Drill
- ♪ Big Bear Breathing





- I brush my teeth on the bottom. I brush my teeth on top. I brush and brush and brush and brush. I brush and then I stop. (BINGO)
- I can put my jacket on. Jacket. Jacket. I can put my jacket on. Hey, hey, hey! Put my arm in here. Other arm in there. I can put my jacket on. Hey, hey, hey! (Camptown Races)
- During diaper changing. My eyes, eyes, eyes. My nose, nose, nose. My hair, hair, hair. My toes, toes, toes. (Mexican Hat Dance)

Social Skills and Daily Tasks



- Social Rules (Farmer in the Dell)
 - ♪ When _____ shows respect. When _____ shows respect.
He always waits his turn to talk when _____ shows respect.
- Commenting
 - ♪ I Love: Create original verses, share with others.
- Sequencing tasks
 - ♪ Scrambled Eggs: Military chants are great.
- Transitions
 - ♪ Harmonica: Great instrument to use throughout your day.
 - ♪ All Done



“Sing a simple song that I can simply sing.”

Attention, Engagement, Play with YOU!

Learn Words, Take Turns, and Imitate too.

Follow Directions, Answer, and Ask.

Social Skills and Daily Tasks.

Oh yeah! Treating ASD

Oh yeah! Try rhythm and melody

Oh yeah! Treating ASD

Rhythm, rhyme, and melody





Never forget the potential of
using music!

**Best wishes as you explore music –
Rhythm and Rhyme
Melody and Movement!**

Feel free to contact me! I love to hear how you
use music in your work.

Rachel Arntson

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