

Nurturing Music Development in Children with Cochlear Implants

Part I Rhythm

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Agenda

- Importance of music to CI children
- Rhythm
 - Elements of rhythm
 - Rhythmic perception and processing
- Overview of literature: CI kids/rhythm
- Rhythmic development
- Activities to nurture rhythmic development
- Resources

Why Nurture Music in CI Children?

- “All children are musical” P. Campbell
- “Every child has some measure of music aptitude and talent” E. Gordon
- Residual hearing can still access certain frequencies, timbres and intensities
- Music can be visual and tactile as well as auditory
- Music is prevalent in every culture
- Some indication that it is biologically driven

Merriam Functions of Music

1. Emotional expression
2. Aesthetic enjoyment
3. Entertainment
4. Communication
5. Symbolic Representation
6. Physical Response
7. Enforcement of conformity to social norms
8. Validation of social institutions and religious rituals
9. Contribution to the continuity and stability of culture
10. Contribution to the integration of society

“ The brain that engages in music
is also changed by music”

Michael H. Thaut

The Two “Biggies” (Thaut, 2005)

- Rhythm
- Pitch (Polyphony)
 - “The two dimensions that organize sounds sequentially and simultaneously into meaningful patterns and structures, creating ‘the language’ of music”

Rhythm can...

- Give order and structure to perception
- Create anticipation and predictability
- Form and shape memory

"Rhythm is the syntax and grammar of time in music" ~ M. Thaut

Elements of Rhythm

- Beat
- Pulse
- Meter
- Tempo
- Accent
- Beat Patterns

Rhythmic Perception (Bergeson & Trehub, 2006)

- Infants sense of rhythm may be linked to their body movements
- Most caregivers move while singing to their infants, making the connection between rhythm and movement
- In some cultures, music is inseparable from movement

Rhythmic Perception (Bergeson & Trehub, 2006)

- Infants group auditory events like adults
 - Regardless of tempo and frequency, infants (7-9 mos) could categorize tone patterns
- Rhythmic sequence induces an internal clock (universal)
- By 5 can synchronize to musical sequences
- Attend to strongly metric rhythms
- Preference for duple vs. triple meter
- Pitch structure affects temporal pattern perception

Rhythmic Processing (Peretz & Zatorre, 2005)

- Right auditory cortex : steady beat, meter
- Left auditory cortex: groupings, rhythm

Rhythm and Children with Hearing Loss (Adamek & Darrow, 2005)

1. Rhythmic abilities stronger than pitch related abilities
2. Discrimination/production of rhythmic patterns more difficult than steady beat
3. Tactile perception can make up for hearing deficits
4. Visual cues are helpful
5. Moderate tempi assists with rhythmic accuracy

Which Approach?

- “Teach Your Baby to Tap Dance Before Birth-Fetal Terpsicology” J. White
- Shirley Temples and Mozarts

Child-Centered Approach

- Know the kids
- Begin where the kids are
- Allow time for play and exploration
- Integrate music into other areas of life
- TuneUps approach

Rhythm and Child Development (Campbell, 1995)

- Non-locomotor movement to rhythmic stimulus
- Babbles in irregular rhythmic patterns
- Locomotor movement
- Begins to feel meter
- Imitates short rhythmic patterns

Rhythm and Child Development (Campbell, 1995)

- Beat competent
- Fast/slow, long/short
- Rhythmic clapping/patting
- Quarter/half/eight note patterns
- Syncopation
- Sixteenth note patterns

Nurturing Rhythmic Development

- Pulse
 - Bounce on knees, pat their shoulders, place their hands on yours to pat
 - Patting to the beat
 - Play beat on drums/instruments
 - Chant one and two-syllable words
 - Moving to the beat

Nurturing Rhythmic Development

- Meter
 - Accents (strong and weak) Pat on strong, silent on weak
 - Conducting duple and triple meters
 - Stepping and skipping songs

Nurturing Rhythmic Development

- Beat Patterns (Rhythm)
 - Internalize the sound (inner hearing)
 - Use syllables to express it (mnemonics)
 - Use manipulatives to write it

Bounce Those Babies

Riding to Boston
Riding to town
You better watch out that you don't fall
down!

Suggestions: Hold baby facing you on your lap, bounce in time to the chant and slide them down your leg on the word "down"

Bounce Those Babies

Motorboat, motorboat, go so slow
Motorboat, motorboat, step on the gas
Motorboat, motorboat, go so fast!

Suggestions: Hold the baby on your lap, bounce in time to the words, speeding up in each line of the chant

Bounce Those Babies

I have a little pony
His name is Macaroni
He trots and trots and then he stops
My funny little pony

Suggestions: Bounce baby on your knee, when you get to 'stop' freeze, wait for baby to vocalize for more and continue on.

Finger Play

Johnny, Johnny, Johnny, Johnny
Whoops, Johnny, Whoops, Johnny
Johnny, Johnny, Johnny

Suggestions: Hold your baby's hand, palm facing you and tap each finger (beginning with the pinky) as you chant. When you get to the Whoops, slide your finger down the distance between the first finger and thumb and reverse the order. Use your baby's name

Finger Play

Round and round the garden
Little bunny goes
Hippity hop, Hippity hop
Gonna get your nose

Suggestions: Use your index finger to draw a circle on your baby's palm. When the bunny hops, creep your fingers up the arm and tickle their nose

Dancing with Your Baby

Sally go round the sun
Sally go round the moon
Sally go round the chimney pot
Every afternoon, BOOM!

Suggestions: dance your baby in a circle until the end and either lift baby high, or fall down on the ground

Chants

Five little hot dogs
Cooking in a pan
The pan got hot and one went BAM!
Four...

Suggestions: Hold hands out in front, palms touching. Clap the hands to the beat and on BAM clap loudly.

Chants

Jimmy stole the cookies from the cookie jar
Who me? (child) Yes, you! (group)
Couldn't be! (child) Then who? (group)
Susie stole the cookies...

Suggestions: Sit in a circle and pat-clap-pat-clap. You say the name of the first student. Next time, the child who was the thief chooses the next thief.

Partner Chant

Chocolate, chocolate, con arroz y con tomate
Uno, dos, tres, cho, Uno, dos, tres, co
Uno, dos, tres, la, Uno, dos, tres, te
Chocolate, chocolate, chocolate, chocolate

Suggestions: Pat-clap-RH-clap-LH-clap-both-clap. At "chocolate," grab your partner's hands and spin faster and faster to the end

Circle Chant

Pease porridge hot
Pease porridge cold
Pease porridge in the pot
Nine days old

Suggestions: Sitting in a circle, put your LH on your R knee and your RH on your neighbor's knee, then clap, then change to the left knee

Movement Chant

Pease, porridge, etc.

Suggestions: 1. Walk in a circle to the beats of the rhyme. 2. Walk in on first and third lines, walk out on second and fourth, 3. walk right on first and second, walk left on third and fourth

Creative Movement

Scarves, ribbons, streamers, parachutes are great props to move with

Select a piece of instrumental music (no words) and let children move individually or with a partner.

Marching Band

- Everyone has a small drum or other non-pitched rhythm instrument.
- The leader has the biggest drum.
- When the leader plays, everyone begins to move around the room. When the leader stops, everyone does, when the leader goes, etc.
- Play high, low, loud, soft, fast, slow
- *Suggestion: Put the drumstick on your head when you stop*

Resources

- Musical Games, Fingerplays and Rhythmic Activities for Early Childhood, Wirth, et. al. Parker Publishing
- Round the Circle, Weikart, High/Scope Press
- Rhythmically Moving CDs, Weikart
- IDEAS Music CD, Snyder
- West Music, www.westmusic.com