

NAEYC  
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# Strengthening Bonding and Attachment through Mutual Music Making for At-Risk Infants and Toddlers



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Raising Harmony: Music Therapy for Young Children

# Learner Objectives

- ♪ Examine critical aspects in the development of attachment and bonding for infants and toddlers/grownups
- ♪ Identify music based elements present in bonding/attachment interactions
- ♪ Learn songs, interventions and strategies that can be used to promote grownup/child bonding and attachment

[www.sproutingmelodies.com/NAEYC2016](http://www.sproutingmelodies.com/NAEYC2016)



[www.musictherapy.org](http://www.musictherapy.org)

[www.raisingharmony.com](http://www.raisingharmony.com)



**Raising Harmony**

Music Therapy For Young Children

# Music Therapy

- ♪ **Music** has been recognized throughout history as **integral to the human experience**. Music therapy uses music as the medium for providing **systematic interventions** through music experiences to support the opportunity for **therapeutic growth and development**.

# Attachment

♪ “...reduces a young child’s fear in novel or challenging situations and enables the child to explore with confidence (so-called secure base behavior) and to manage stress...”

♪ Neurons to Neighborhoods: The Science of Early Childhood Development  
♪ (Shonkoff & Phillips 2000, p 230)

# Attachment

♪ “...attachment relationships strengthen a young child’s sense of competence and efficacy. The adult’s contingent responding strengthens a young child’s awareness of being able to influence others and affect the world...”

♪ Neurons to Neighborhoods: The Science of Early Childhood Development  
♪ (Shonkoff & Phillips 2000, p 230)

# Bonding

- ♪ “A critical factor in the caregiving environment is the extent to which parents and other caregivers including teachers and mentors are warm and responsive in interacting with the child, utilize positive behavior management strategies, and provide a positive climate for growth and development.”

*Self-Regulation and Toxic Stress: Foundations for Understanding Self-Regulation from an Applied Developmental Perspective*  
U.S. Department of Health and Human Services 2015

# Bonding and Attachment For the Grownup and Child

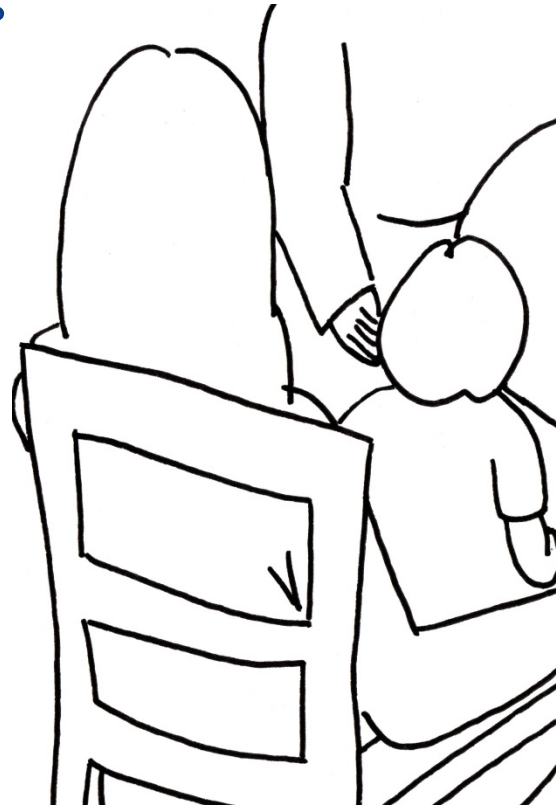
- ♪ Responsiveness
- ♪ Consistency
- ♪ Persistence
- ♪ Acceptance
- ♪ Boundaries
- ♪ Safety
- ♪ Joint Awareness
- ♪ Joint Referral





# Barriers to Bonding

- ♪ For the Grownup:
  - ♪ Situational Awareness
    - ♪ Roles and expectations
    - ♪ Environment
    - ♪ System requirements
  - ♪ Lack of Information
    - ♪ Development
    - ♪ Disability
    - ♪ Available assistance
  - ♪ Responsiveness
    - ♪ To the child
    - ♪ To the environment
    - ♪ To the system



# Barriers to Attachment

## ♪ For the Child:

- ♪ Difficulties with attention
- ♪ Challenges with regulation
- ♪ Lack of synchrony
- ♪ Sensory avoidance
- ♪ Delayed communication
- ♪ Physical limitations
- ♪ Cognitive limitations
- ♪ Health, nutritional or medical conditions

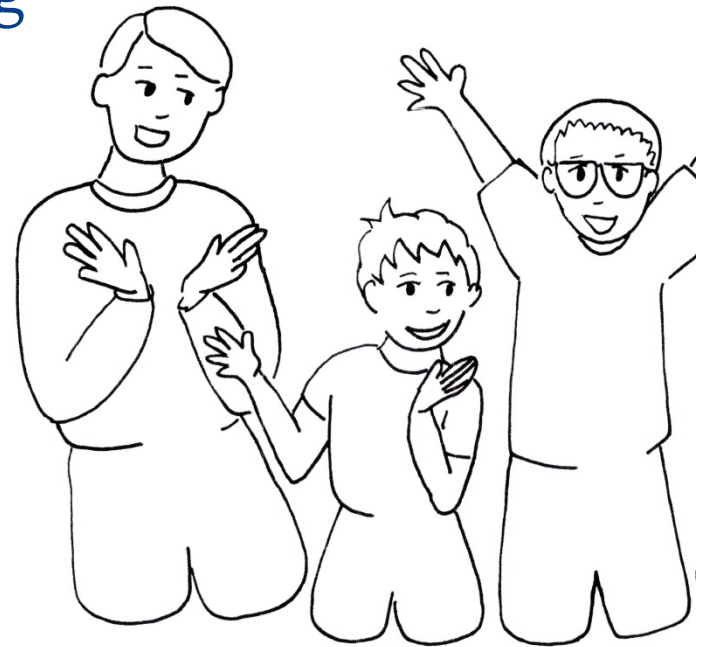


# Critical aspects in the development of grownup/child bonding and attachment

- ♪ Interactional synchrony
- ♪ Regulation
- ♪ Reciprocal communication
- ♪ Joint attention

# Musical elements in bonding/attachment interactions

- ♪ Rhythmic and movement matching
- ♪ Intonation and inflection imitation
- ♪ Shared awareness
- ♪ Shared meaning
- ♪ Shared structure
- ♪ Timbre reflection and response



# Musical Characteristics of Bonding & Attachment

## Mutual Focus

- ♪ Music engages shared focus and attention
- ♪ Music is processed in a unique way in the brain
- ♪ Music is a universally accessible experience

## Movement Synchrony

- ♪ Melody and rhythm mirror movement action and flow
- ♪ Melody and rhythm provide motivation for movement
- ♪ Melody and rhythm provide flexibility in grading or changing mutual movement

# Fostering Mutual Music Focus

## Come On Let's Make Some Music

Adapted E.K. Schwartz

*Andante*

Voice

The image shows a musical score for a voice part. It consists of two staves of music in 4/4 time, marked 'Andante'. The first staff contains the lyrics 'Come on let's make some music with our hands. Come on let's make some music with our'. The second staff continues with 'hands. Making music is fun. Altogether or one by one. Come on let's make some music with our hands.' The melody is simple and repetitive, using quarter and eighth notes.

Come on let's make some music with our hands. Come on let's make some music with our

hands. Making music is fun. Altogether or one by one. Come on let's make some music with our hands.

# Fostering Movement Synchrony

## Wiggly Jiggly Car

E.K. Schwartz

Voice

The musical score is written for voice in 4/4 time. It consists of five staves of music. The first staff begins with a treble clef and a key signature of one flat (B-flat). The melody is simple and repetitive. The lyrics are: 'To keep you safe, safe, safe, put your seat belt on, on, on. To keep you safe, safe, safe, put your seat belt on. Wig-g-ly Jig-g-ly here we go we're rid ing in the car, car. Wig g ly Jig g ly hip pi ty hop and now its time to stop. Oh, oh, oh, Wig g ly Jig g ly here we go we're rid ing in the car, car. Wig g ly Jig g ly hip pi ty hop and now its time to stop.'

To keep you safe, safe, safe, put your seat belt on, on, on. To keep you safe, safe, safe, put your seat belt on.

Wig-g-ly Jig-g-ly here we go we're rid ing in the car, car.

Wig g ly Jig g ly hip pi ty hop and now its time to stop. Oh, oh, oh,

Wig g ly Jig g ly here we go we're rid ing in the car, car.

Wig g ly Jig g ly hip pi ty hop and now its time to stop.

# Musical Characteristics of Bonding & Attachment

## Rhythmic Synchrony

- ♪ Rhythmic entrainment promotes mutual movement
- ♪ Rhythmic entrainment regulates physiological functions
- ♪ Rhythmic entrainment regulates emotional states

## Reciprocity

- ♪ Musical structure fosters expectation for shared give-and-take
- ♪ Melodies support momentum toward response
- ♪ Rhythmic structure allows for suspension of sound while maintaining underlying organization



# Fostering Rhythmic Synchrony

## I Can Move Around

E.K.Schwartz

Voice

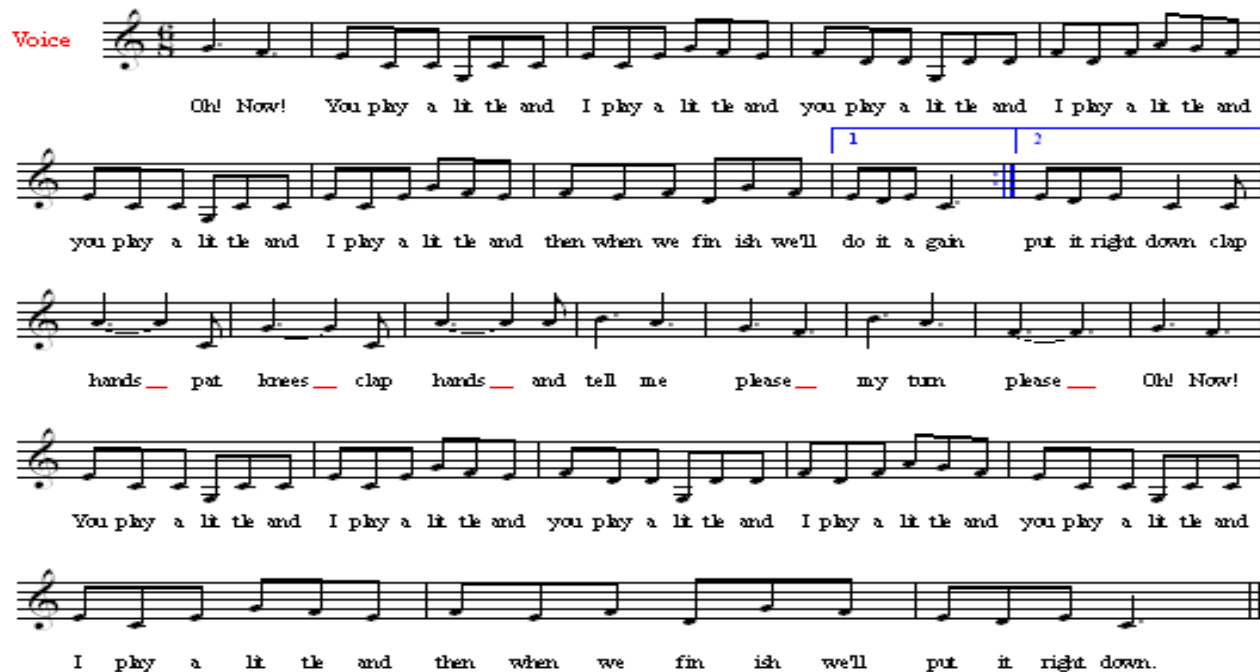
I can move a round and make some mu sic. \_\_\_\_ Shak ing up and down and mak ing mu sic. \_\_\_\_ I can move a round, I  
love to make that sound. I can move a round and make some mu sic. \_\_\_\_ La la la la la la la la \_\_\_\_ La la la la la la la  
la la \_\_\_\_ I can move a round I love to make that sound. I can move a round and make some mu sic. \_\_\_\_

# Fostering Reciprocity

## YOU PLAY A LITTLE

E.K. Schwartz

Voice



Oh! Now! You play a little and I play a little and you play a little and I play a little and

you play a little and I play a little and then when we finish we'll do it again put it right down clap

hands pat knees clap hands and tell me please my turn please Oh! Now!

You play a little and I play a little and you play a little and I play a little and you play a little and

I play a little and then when we finish we'll put it right down.

# Musical Characteristics of Bonding & Attachment

## Timbre Response

- ♪ Timbre provides for unique identity identification
- ♪ Timbre changes reflect changes in emotional states
- ♪ Timbre matching communicates attention and reflection

## Pitch and Melody Imitation

- ♪ Pitch and melody contain unique communicative meaning separate from language
- ♪ Pitch and melody imitation allows for communicative reciprocity
- ♪ Pitch and melody are maintained in memory and can be reproduced

# Fostering Timbre Response

## Music Is The Way

Elizabeth K. Schwartz

copyright 2007

Harmonize in F# Pentatonic

Voice



Mu sic is the way to say Mu sic is the way to say I love you.



Mu sic is the way to say Mu sic is the way to say I love you, love you,



love you, love you, love you. I love you. You love me. I love you.



You love me. Mu sic is the way to say Mu sic is the way to say I love you. —

# Fostering Pitch and Melody Imitation

## Can You See Me?

E.K. Schwartz

Freely

Voice

Can you see, see, see, me, me, me? Here's my eyes and here's my nose. Can you  
Can you see, see, see, me, me, me? Here's my knees and here's my toes. Can you

see, see, see, me, me, me? Watch my mouth it'll open and close. Ha, ha, ha! Ho, ho, ho!  
see, see, see, me, me, me? Watch my hands they'll open and close. Ha, ha, ha! Ho, ho, ho!

Ha, ha, ha! Ho, ho, ho! Ha, ha, ha! Ho, ho, ho! Ha, ha, ha! Ho, ho, ho.  
Ha, ha, ha! Ho, ho, ho! Ha, ha, ha! Ho, ho, ho! Ha, ha, ha! Ho, ho, ho!

# Musical Characteristics of Bonding & Attachment

## Joint Referral

- ♪ Music exists as both an internal experience and an external experience that can be shared
- ♪ Music experiences become an object for shared attention for both grownup and child
- ♪ Music creates shared meaning and shared context

## Shared Structure

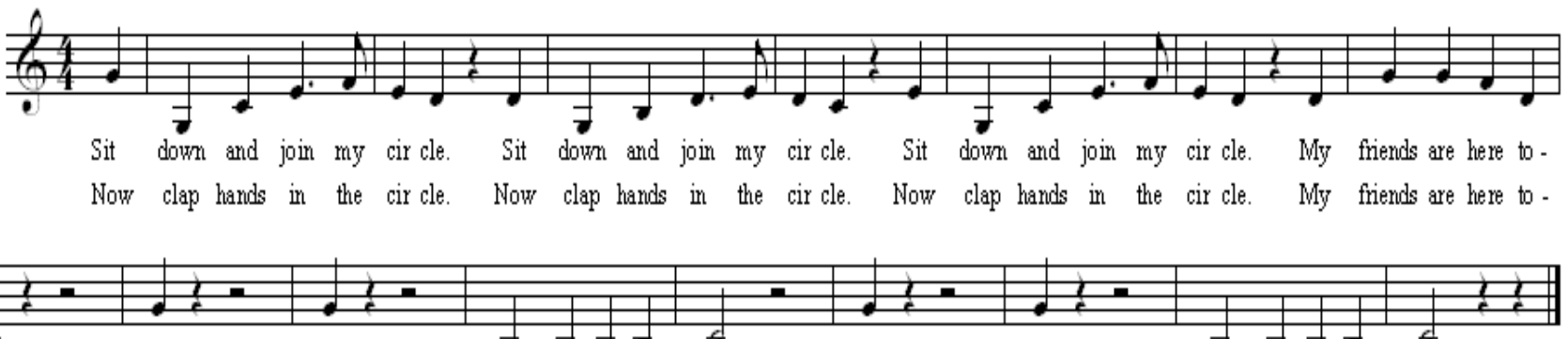
- ♪ Musical structure organizes time
- ♪ Musical structure allows for reliable periods of shared attention
- ♪ Musical structure creates patterns of experience

# Fostering Joint Referral

## Sit Down and Join My Circle

Adapted E.K.Schwartz

Voice



Sit down and join my cir cle. Sit down and join my cir cle. Sit down and join my cir cle. My friends are here to -  
Now clap hands in the cir cle. Now clap hands in the cir cle. Now clap hands in the cir cle. My friends are here to -

day. Here, there, Friends are eve ry where! Here, there, Friends are eve ry where!  
day. Here, there, Friends are eve ry where! Here, there, Friends are eve ry where!

The image shows two staves of musical notation in 4/4 time. The first staff is labeled 'Voice' and contains the main melody with lyrics. The second staff is a piano accompaniment consisting of a simple bass line with notes and rests corresponding to the lyrics.

# Fostering Shared Structure

## Can You Follow?

Adapted E.K. Schwartz

Traditional Folk Tune

Voice



Can you fol low can you fol low can you come and march with me? Can you fol low can you fol low can you



come and march with me? Hi Ho — hi ho. Round and round we go. Hi ho — hi ho round and round we go.



**THANK YOU!**

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**www.SproutingMelodies.com/NAEYC2016**



# References

- ♪ Abad, V., & Edwards, J. (2004). Strengthening families: A role for music therapy in contributing to family centered care. *Australian Journal of Music Therapy*, 15, 3.
- ♪ Betts, S. (2011). Attachment-based music therapy: New opportunities and requirements for music therapists working with young children. *Imagine: Early Childhood Music Therapy Newsletter*, 2(1).
- ♪ Allgood, N. (2005). Parents' perceptions of family-based group music therapy for children with autism spectrum disorder. *Music Therapy Perspectives*, 23(2), 92–99.
- ♪ Bowlby, J. (1969). *Attachment. Attachment and Loss: Vol. 1. Loss*. New York: Basic Books.
- ♪ Cevasco, A. M. (2008). The effects of mothers' singing on full-term and preterm Infants and maternal emotional responses. *Journal of Music Therapy*, 45(3), 273–306.
- ♪ Condon, W. S. (1971). Speech and body motion synchrony of the speaker-hearer. In D. L. Horton and J. J. Jenkins (Eds.), *Perception of Language*, Columbus, Ohio: Merrill, 150-173.
- ♪ de l'Etoile, S. K. (2006). Infant-directed singing: A theory for clinical intervention. *Music Therapy Perspectives*, 24(1), 22–29.
- ♪ Humpal, M. E., & Tweedle, R. (2006). Learning through play—A method for reaching young children. In M. Humpal & C. Colwell (Eds.), *Effective Clinical Practice in Music Therapy: Early Childhood and School Age Educational Settings* (pp.153–173). Silver Spring, MD: American Music Therapy Association.
- ♪ Ilari, B., & Sundara, M. (2009). Music listening preferences in early life: Infants' responses to accompanied versus unaccompanied singing. *Journal of Research in Music Education*, 56(4), 357–369.
- ♪ Nicholson, J. M., Berthelsen, D., Abad, V., Williams, K., & Bradley, J. (2008). Impact of music therapy to promote positive parenting and child development. *Journal of Health Psychology*, 13, 226.
- ♪ Nicholson, J. M., Berthelsen, D., Abad, V., & Williams, K. (2010). National study of an early parenting intervention: Implementation differences on parent and child outcomes. *Society for Prevention Research*, 11, 360–370.

# References

- ♪ Schwaiblmaier, F. (2005). Infant research and music therapy—The significance of musical characteristics in early mother-child interaction for music therapy. *Music Therapy Today*, VI(1), 48–59.
- ♪ Schwartz, E. (2008). *Music, Therapy, and Early Childhood: A Developmental Approach*. Gilsum, NH: Barcelona Publishers.
- ♪ Schwartz, E. (2012). *You and Me Makes We: A Growing Together Songbook*. Melrose, MA: The Center for Early Childhood Music Therapy.
- ♪ Schwartz, E. K. (2009). In the beginning: Music therapy in early intervention groups. *Imagine: Early Childhood Music Therapy Newsletter*, 15. Silver Spring, MD: American Music Therapy Association.
- ♪ Schwartz, E. K. (2011). Growing up in music: A Journey through early childhood music development in music therapy. *Developments in Music Therapy Practice: Case Study Perspectives*. (Meadows, Ed.). Gilsum, NH: Barcelona Publishers.
- ♪ Standley, J. M., & Madsen, C. K. (1990). Comparison of infant preferences and responses to auditory stimuli: Music, mother, and other female voices. *Journal of Music Therapy*, 27, 54–97.
- ♪ Standley, J. M., Walworth, D., & Nguyen, J. (2009). Effect of parent/child group music activities on toddler development: A pilot study. *Music Therapy Perspectives*, 27(1), 11.
- ♪ Trainor, L. J., Rock, A. M. L., & Addison, T. L. (1999). Distinctive messages in infant-directed lullabies and play songs. *Developmental Psychology*, 35(2), 527–534.
- ♪ Walworth, D. D. (2009). Effects of Developmental Music Groups for Parents and Premature or Typical Infants Under Two Years on Parental Responsiveness and Infant Social Development. *Journal of Music Therapy*, 46(1), 32–52