



Family Matters

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Meeting the Challenges of the COVID-19 Pandemic: Virtual Developmental Music Therapy Class for Infants in the Neonatal Intensive Care Unit

Brianna Negrete

Infants who have lengthy hospitalizations in the Neonatal Intensive Care Unit (NICU) are at a higher risk for developmental delays as they become toddlers (Lehner & Sadler, 2015). Music therapy is an effective way to provide developmentally appropriate cognitive, motor, and social stimulation to support these infants. Music therapy can aid in meeting developmental milestones for NICU infants who have been in the hospital for over a month (Emery et al., 2019), enhancing behavioral and social developmental domains and communication skills, and supporting and encouraging positive parenting (Nicholson et al., 2008). Facilitated developmental music therapy groups with infants are an effective way to support development and encourage more social and positive interactions between parents and infants (Walworth, 2009).

During the COVID-19 pandemic, many NICUs restricted the presence of family members to only one caregiver at the bedside at a time and also required all staff and family members to wear a mask at all times when in the hospital (Preterm Birth Initiative, 2020). Faced with these restrictions, some hospitals have sought technology solutions to maintain family and social connections for hospitalized children. This technology may include virtual classrooms, Facetime, and virtual interactive games (Goldschmidt, 2020). Although screen time is not recommended for children under 2 years of age (World Health Organization, 2019), video-based interactive activities are beneficial if an adult is in the room to facilitate the interaction (American Academy of Pediatrics Council on Communications and Media, 2016).

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The COVID-19 pandemic has changed the way some music therapists provide developmental support in the Neonatal Intensive Care Unit (NICU). Due to safety restrictions in the NICU, adaptations have been put in place to support the developmental needs of patients and social needs of family members, through virtual developmental music therapy classes. These interactive classes provide developmental support, parent-to-parent connections, and socialization between patients.

Key Words: COVID-19, coronavirus, safety, music therapy, pandemic, family-centered care.

To support infant development, parent-infant interaction, and parent-to-parent connections in the NICU during the COVID-19 pandemic, an interactive developmental music therapy group was created by the music therapist in the Intensive Care Nursery at UCSF Benioff Children's Hospital San Francisco, CA, and delivered using a video-conferencing platform.

The Developmental Music Therapy Class

Prior to COVID-19, developmental music therapy classes for infants of 30 minutes in length were regularly offered in-person in our NICU. The "Music for Development" class was taught to parents by the music therapist as part of the

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Figure 1.
Screenshot of Virtual Developmental Music Therapy Group
Music therapist leading the group from home (upper right panel) with infants and caregivers logged in from their individual patient rooms in the NICU.



Note: All photos used with permission of the group participants.

Family Integrated Care (FICare) parent education curriculum (Franck et al., 2019). Parents who attended the class were invited to participate in the in-person developmental music therapy class. Classes were held in a central area in the unit where most of the infants were located. Parents and their infants, who were 4 months corrected gestational age or older, were invited and encouraged to participate. Infants were held by their parents, seated in a circle.

The music therapist facilitated the class that included songs encouraging socialization. Socialization activities were especially emphasized because this was often the first time the infants had seen other babies. Instrument play was done with shakers, and songs were sung by the music therapist and parents together. The songs also taught baby sign language (e.g., more, all done, mama). Story books were also read to the infants, and parents were reminded of the importance of reading to their children. Movement activities were demonstrated and practiced so parents could do them with their babies at other times.

Before each song, the music therapist would educate the parents on how to participate in the song with their child, providing hand-over-hand support, pointing to the different body parts the song was cueing, explaining how the song supported their infant's development, and demonstrating how the song could be used when not in a group setting. The music therapist also provided cues on how to

adapt the activities based on the needs of the infant. For example, if the infant was lying on their back and unable to sit up, the music therapist would encourage the parent to move the infant's legs in a bicycle kick motion for the "Wheels on the Bus" song, instead of moving their hands.

Most importantly, this class allowed parents to just be parents; the music therapist aimed to create an ambiance of an ordinary playgroup in the community, avoiding direct discussion about the hospital or medical care. Parents bonded with their children using music, but also built relationships with other parents using music. Parents were able to meet other parents and make connections that they typically would not have made because they rarely left their child's room.

Adapting the Class to a Virtual Environment

Once COVID-19 restrictions were put into effect, all parent classes, including the in-person music therapy class, were immediately stopped. With the restrictions in place allowing only one caregiver at the bedside, and all caregivers required to wear masks at all times, the need for developmental support for the infants became even more crucial. As a result, the music therapy class was adapted to be delivered over a video conferencing platform.

Figure 2.
Considerations for Planning Virtual Classes

Virtual developmental music therapy classes can support development and growth for NICU infants during the COVID-19 pandemic with its resultant escalation in hospital infection control precautions.

If you already work with a music therapist in your NICU:

- Consider requesting that the music therapist redesign the music therapy content for the online environment, including groups and individual sessions.
- Consult with parents and NICU staff about the best day and time for virtual classes.
- Involve family members off site in virtual programming to encourage bonding.
- Invite families to watch a session first, before attending with their child.
- Determine the most appropriate infants for virtual music therapy sessions.
- Identify at least one on-site staff member (e.g., nurse or child life specialist) who can help families troubleshoot technical difficulties.
- Connect with interpreting services to translate instructions when appropriate.
- Remind families that they cannot take pictures of the screen if other patients are present, due to HIPAA rules.

If you do not currently work with a music therapist:

- Create opportunities for infants to have ‘face time’ with an unmasked person.
- Provide developmentally appropriate materials that families and staff can use to engage with infants. This may include mirrors, shakers, and books.
- Encourage families to use online platforms to read stories, sing, and talk to their infants when they can't be present.
- Consult a board-certified music therapist about possible contracting of hours to facilitate virtual music therapy sessions. To find a music therapist who is trained to work in a NICU, please visit: <https://www.music.fsu.edu/NICU-MT/nicu-mt-registry>

Precautions when using digital media platforms with infants or young children:

- Use only for infants greater than 4 months corrected gestational age.
- Remember to set time limits when screen time is being used; it should not exceed 25 minutes, and the screen should be turned off if the infant shows signs of overstimulation.

The class is now held twice a week over Zoom (Zoom.us, San Jose, CA). The web link and login instructions for the class are emailed to the nurse assigned to each infant on the day of a class and also to each infant's parents. Immediately prior to the class, a reminder text is sent to the nurses, and they are asked to login to the class on the computer in the patient's room. Alternatively, the parent who is present at their baby's bedside can login using their own tablet or phone. Additionally, another parent, grandparents, and/or siblings who are unable to be onsite are provided the link

and invited to login on any device and participate in the class from their home or other remote location.

The music therapist facilitates the virtual class from home and does not need to wear a mask. Therefore, infants and their parents see the therapist's facial expressions (see Figure 1). All participants are asked to use the “gallery view” screen feature so all infants and parents can both see each other and be seen on the screen (see Figure 1). Every infant has an adult present with them during the class, either a parent or a NICU staff member. This is important in case the infant shows signs of overstimulation and needs to be signed-off from the class. The class lasts about 20 minutes and is structured the same way it was when offered in-person. A brief clip of the class is shown here: <https://abc7news.com/ucsf-nursery-coronavirus-infants-covid-19-and/6213347/>

One nurse describes participating in the class with a patient:

Through Zoom, M. has been able to maintain one of his favorite therapies, which is music therapy class. He has found his loud voice with singing along with Brianna. He also recognizes the faces of other participants as well as Brianna. Outside of the class, we sing the songs from class, which he enjoys.

Benefits of the Virtual Developmental Music Therapy Class

As successful and beneficial as the in-person music therapy class has been, there are unique benefits of the virtual class. One benefit is that more infants are able to attend the online developmental music therapy class because they can participate from their rooms. For example, more infants with tracheostomies have attended the class because nurses do not have to coordinate respiratory support and transportation for the infants. In addition, infants who are on isolation precautions are able to participate; this would not be possible for an in-person class. The online class also minimizes the amount of staff time required to help with the class because all the family or nurse needs to do is to log on.

Another benefit of the online class is that the music therapist is not wearing a mask. Since the COVID-19 infection control precautions, all infants see are faces covered with masks. Infants benefit from seeing facial expressions to learn social cues and to identify emotions (Caron et al., 1988). The online class is a safe way for infants to see and interact with a human face without a mask.

Finally, because the number of people allowed to be with an infant is so restricted because of the COVID-19 precautions, a virtual class allows additional family members to participate in or observe the class even from a distance, and as a result, to feel a greater connection to their infant's experience. Having a class in which infants and parents can see each other and parents can see each other's infants has been beneficial in building relationships outside of the hospital rooms, especially since the family lounge is now closed.

One nurse describes her observations of the virtual music therapy classes as follows:

The music therapy program has offered a unique opportunity for babies to see a face and mouth without a mask. For young infants, this time is critical for them to see faces, particularly the mouth. In a scary time where we

must all wear masks (parents included), the babies seeing our music therapist's smiling and singing face has been an important developmental intervention that everyone happens to just LOVE!

What Do Parents Think about Virtual Developmental Music Therapy Classes?

Feedback regarding the virtual classes has been very positive. Some parents have mentioned that they have been able to make connections with other parents through the virtual music class, and they have continued to engage with each other online outside of class.

One mother described her and her infant's experience:

My son has truly found joy in music through our Zoom classes. He is moving his hands, smiling, paying attention to when the music stops or changes, and even shaking his shaker. It has been such a blessing to attend sessions together and be with our ICN [Intensive Care Nursery] friends during this time of social distancing. We love Ms. Brianna and our music time.

Our 'New Normal'

COVID-19 has changed the way hospital care is delivered. Although many restrictions seem onerous and will hopefully be eased as the pandemic abates, some creative solutions have emerged that could, and perhaps should, be sustained once the pandemic is over. Moving forward after COVID-19, there are benefits to having a blended schedule of in-person and virtual developmental music therapy classes. A blended schedule will enable parents who are onsite and infants who are able to leave their rooms to meet together to learn, socialize, and share. It will also provide a similar opportunity for infants who are not able to leave their rooms, and family members who are unable to be present in person, to experience shared learning and social contact in a virtual class. During a time in which "social distancing" is the new normal, there is no better feeling than to bring infants and families together using the power of online video conferencing technology and music therapy. For those interested in bringing virtual classes to their institutions, see Figure 2. ■■■

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