EARLY CHILDHOOD MUSIC THERAPY

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about imagine
imagine is an annual online magazine sharing evidence-based information and trends related to early childhood music therapy through various media.

TELEPRACTICE: PARENT-MEDIATED IMPLEMENTATION OF

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Parents are key in creating an environment that leads to positive outcomes for speech-language development in young children with autism spectrum disorder (ASD). Evidence-based strategies can enhance children's social-communicative functioning when systematically taught to parents. One of the most important parent-mediated intervention outcomes is generalization and maintenance of children's long-term language skills (Oono et al., 2013).

Telepractice in speech-language therapy is equally effective as in-person parent training. When working with parents of children with ASD in an online modality, access to internet-based educational opportunities (e.g., game-based learning modules, written documents, visual supports, and videos) are used to engage in the learning process. Guided by a professional, parental training can be offered synchronously or asynchronously, which might also be more time and cost-efficient (Hao et al., 2021).
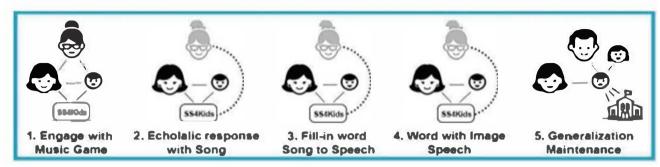
Joint attention is a critical social-communication skill for children with ASD (Jones & Carr, 2004). In telepractice, Joint Media Engagement (JME), also known as *co-viewing*, can create opportunities to practice joint attention. JME refers to the adult trainer and child sharing the experience of viewing, playing, searching, reading, contributing, and creating in digital media (Takeuchi & Stevens, 2011).

According to Thaut (2016), DSLM is the specific use of developmentally appropriate musical materials and experiences to enhance speech and language development through singing, chanting, playing musical instruments, and combining music, speech and movement. In 2010, research with 50 children ages 3-5 years diagnosed with ASD showed that Developmental Speech Language Training Through Music (DSLM) was significantly more effective than speech-only training for children with high support needs (Lim, 2010). These results were supported by the observation that many children with ASD and severe speech delays have similar melodic and rhythmic production skills as neurotypical children. Sing and Speak 4 Kids (SS4Kids), an online music-based program for children with ASD, speech delays, or English Language Learners, incorporates DSLM for learning through interactive digital play.

SS4Kids gameplay follows a sequence of five stages that can be implemented at home by parents with their children to achieve skill generalization and maintenance. The stages of gameplay are outlined in Figure 1:

1. During in-person or telepractice sessions, the therapist guides the parent-child dyad in engaging jointly with the online game.
2. The first game stage encourages echolaic responses from the parent and child, repeating exactly what they hear while target word images appear.

Figure 1

Five-Step Gameplay Procedure

1. Engage with Music Game
2. Echolalic response with Song
3. Fill-in word Song to Speech
4. Word with Image Speech
5. Generalization Maintenance

3. The next game stage prompts the child to fill in the missing last word, first in song, then in natural speech.
4. The final game stage displays the target word image and prompts the child to produce the target word without a model.
5. The parent brings the online game experience into the real world of the child by incorporating the lyrics and target words throughout the day and reinforcing this activity with other family members and environments such as school, while therapists monitor the child's progress through an online reporting system incorporated in the program.

Training Materials and Supports

The SS4Kids parent training materials include three short videos (i.e., Let's Get Started!, How to Play the Game, Progress Tracking Options), which can be viewed online. A Community of Practice private Facebook group brings together parents using SS4Kids to provide support from peers and advice from professionals. The following demo video (Figure 2) gives an overview of the application of the online program Sing and Speak 4 Kids.

With parental feedback, the training procedure and materials are updated regularly. In the near future, a User Generated Song platform will allow users to add their own words into song templates to customize each child's vocabulary-building and social communication. Other potential features may include videos of real sessions, scenario options of different children and

situations, training calendars with auto-reminders, and reward badges.

Figure 2

Demo Video Sing and Speak 4 Kids.

▶ HTTPS://YOUTU.BE/VEAWTAMUXRW

Lessons Learned

During the COVID-19 pandemic, SS4Kids became an online resource for parents and professionals to continue services for children with language delays. Parental training was crucial for the success of the program. Offering training through telepractice during a time when families have many stressors in their lives has its own challenges. The following points are lessons learned for future implementation of parental training of the online music-based program:

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- Clarify all tech requirements for playing SS4Kids.
- Watch three short training videos (Spanish versions available.)
- Listen to songs and words to select target words for the child.
- Find a quiet space with no distractions.
- Go at the child's pace.
- Stay patient, as every child learns through repetition.
- Identify song words to include in daily home routines.
- Incorporate song stories into daily activities.
- Schedule sessions regularly for 5-15 minutes.
- Track progress with pre/post assessment.
- Collaborate with a professional in gameplay and speech development.

Use in Early Childhood Music Therapy Telepractice

Developmental music therapy tele-interventions allow families to engage in music-making experiences and address therapeutic goals together with the professional, specifically to generalize their therapeutic gains and apply them in everyday situations. In the midst of uncertainty during the COVID-19 pandemic, tele-interventions have provided an element of normalcy and strategies to cope with challenging times, placing less stress on caregivers and creating enjoyable experiences. In some cases, telepractice has resulted in greater parent-child adherence than in-person therapy, because the parent and professional are able to see the child's behavior at home and set mutual goals. SS4Kids provides a secure internet link for the professional and parent to share song play data and progress, which can be exchanged both in real time and asynchronously. The program offers automatic progress tracking of the child's verbal production during all gameplay levels. In addition, the therapist (or parent) has the option to perform a formal baseline pre-assessment of speech level for each song/word, to compare with a post-assessment at the end of the song play. The therapist amplifies the positive social communicative behavioral outcomes by encouraging those extra weekly minutes of song play between sessions that the parent facilitates at home with their child.

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DEC VIRTUAL CONFERENCE - JANUARY 2021

Division for Early Childhood 36th Annual International Conference on Young Children with Special Needs and Their Families

January 21–29, 2021

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The Division for Early Childhood (DEC) International Virtual Conference offered a platform for professionals working with young children of all abilities and their families to engage in pre-conference workshops, keynote addresses, hot topics, and breakout sessions and to view research posters as well as exhibit hall items. The broad topic, "Achieving Meaningful Inclusion for All: Advocate, Innovate, Inspire," embraced antiracism, social justice, advocacy, policies, resources, interdisciplinarity, sustained evidenced-based practice, consulting and coaching strategies, resilience, and telehealth applications among others. This report summarizes seven presentations addressing recent early childhood telepractices that could be of relevance for early childhood music therapy services. For more information, visit DEC's event page at https://www.decconference.org/

Augmented Reality: A Review of the Literature and Tutorial for Educators

Speakers: Conrad Oh-Young, California State University; Dominguez Hills and Jennifer Buchter, Eastern Illinois University

Through the use of augmented reality, or AR, this virtual presentation superimposed artificial objects such as a toy airplane into the conference attendees' home offices, measured objects with an electronic tape measure, and identified stars by gazing into the sky without going outdoors – all made possible by scanning QR codes displayed by the speakers on a mobile device. Which apps allowed for these AR experiences?

- *Measure* – enables distances to be measured electronically
- *Amazon* – places selected products into a real-life environment
- *JigSpace* – puts interactive 3D objects on any flat surface
- *Night Sky* – provides an interactive map of the stars, planets, and galaxies
- *Halo AR* – connects to an interactive media overlay upon scanning an image that has been previously attached.

But, how can these AR experiences the learning and development of children with disabilities? Examples of AR in early childhood included scanning a trigger image of the handwashing procedure and overlaying it with a video to model the steps, hunting preferred superimposed artificial objects (aka Pokémon Go) to encourage physical activity, or measuring the height of a child to enhance math skills. While adult support is necessary, the applications can be manifold and should be further explored. All apps are available for free in the Apple App Store at https://www.apple.com/app-store/.

Sing and Speak 4 Kids: A Music-Based Telehealth Program

Speakers: David Sonnenschein, IQSONICS; Hayoung Lim, Oral Roberts University; Erica Ellis, California State University, Los Angeles

Based on music therapy research targeting speech production of young children with autism spectrum

disorder (ASD), IQSONICS collaborated in developing *Sing & Speak 4 Kids (SS4Kids)*, an online music-based program for children with speech-language delays/disorders (see Lim & Sonnenschein in this issue). Testing the product with children, teachers, and parents, a speech-language pathologist found that SS4Kids is effective for enhancing vocabulary acquisition and speech production in children with speech-language impairments due to ASD and other developmental disorders and English Language Learners with and without impairments. Additionally, parents and teachers who implemented SS4Kids were successful in improving target word production in children, using a data tracking component to measure progress. During the COVID-19 pandemic, a free trial is available along with a parent training program to engage children at home. Research is underway to evaluate the efficacy of the home program. A video demonstration of SS4Kids can be viewed at https://youtu.be/6HXc9yStG94

Let's Get Started, the parent training video, can be accessed at https://vimeo.com/455663190

Keeping Professional Development Fresh in a Tech Savvy World

Lisa Terry, Dr. Dana Childress, and Cori Hill, Virginia Commonwealth University/Partnership for People with Disabilities

This engaging and interactive online presentation modeled a high-quality professional development opportunity at its finest! Considering best practices for adult learning, the speakers pointed out five underlying principles that need to be considered for successful online training of professionals. Adults learn best when a) content is immediately relevant and useful, b) new knowledge is built upon prior knowledge, c) actively participating and practicing what they are learning, d) what they are learning is practiced in context and in real-time, and e) they receive feedback and reflect on their learning and performance. The speakers referred to a wealth of training resources (i.e., Early Intervention Strategies for Success Blog, Learning Paths, Talks on Tuesday Webinar, Podcasts, Learning Bytes, Resource

Pop-Ups, ECHO, Videos, YouTube, and Online Courses/Modules, Short Courses) developed by the Virginia Commonwealth University and accessible for free to everyone. Helpful tips such as marketing and branding virtual offerings on social media, preparing for the event, and having a back-up plan in place concluded this jam-packed presentation. Training resources and information to enhance professional development can be found at https://www.veipd.org/main/index.html

Internet-Based Parent-Implemented Shared Reading Intervention

Speakers: Dr. Yusuf Akemoglu and Dayna Laroue, The University of Alabama

When COVID-19 hit, the speakers had to turn their parental storybook communication program for children with ASD into a telepractice-based parent-implemented intervention using Zoom for coaching sessions and Box™ for data storage. Strategies to increase child participation at home included intentionally arranging the environment (i.e., specific space for reading with comfortable seating used consistently), picking books of interest (i.e., child-preferred topic with a choice to pick one of two storybooks), and reading prompts (i.e., modeling, mand-model, time delay, feedback statements, and attention getters). Before the intervention, parents completed a communication evaluation of their child, an interview, technology training, and submitted a baseline video demonstrating reading a storybook with their child. During an online Zoom training using PowerPoints, handouts, and video samples, parents learned about reading techniques and the three naturalistic communication teaching strategies (i.e., modeling, mand-model, and time delay). Additionally, the speakers provided individualized coaching including parent reflection, coach feedback along with video examples, discussions, and joint session planning. While only testimonials and anecdotal results could be reported from this adjusted pilot study at this time, the original publication using parent-implemented shared reading is available at https://pubmed.ncbi.nlm.nih.gov/33095351/