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Musicking at GiGi's Playhouse: Development and implementation of a telehealth family-based music therapy program for children with Down syndrome

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Abstract

In this small-scale observational study, we examined the feasibility and potential therapeutic benefits of delivering a synchronous, telehealth-based, family-based music therapy program for children with Down syndrome and their caregivers. In collaboration with a community partner, we developed and implemented a 10-week program during the COVID-19 pandemic as both a service initiative and a course-based undergraduate research experience (CURE; Bangera & Brownell, 2014). Two parent–child dyads completed the intervention, participating in themed, music-based experiences designed to promote positive parent–child interactions. Observational data collected using a modified version of the 6-Item Observational Checklist (Nicholson et al., 2008; Williams et al., 2012) indicated consistent achievement of parent and child behavioural objectives. Specifically, we documented increases in positive affect, responsiveness, and engagement across sessions. Parents effectively modelled participation strategies and adapted to the format of music therapy delivered synchronously in real time through videoconferencing (telehealth), while children demonstrated active involvement through verbal, musical, and movement responses. Results suggest that telehealth delivery of family-based music therapy is procedurally feasible and can support bi-directional parent–child interactions for families of children with Down syndrome. Recommendations for future research include expanding sample size, incorporating standardised outcome measures, and comparing in-person versus telehealth formats.

Keywords

family-based music therapy, Down syndrome

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Introduction

Down syndrome is a prevalent chromosomal condition associated with intellectual disability, with an estimated 5,700 live births each year in the United States (Centers for Disease Control and Prevention, 2024). Children with Down syndrome frequently experience developmental challenges related to communication, attention regulation, and social engagement, which may affect their participation in daily activities and their interactions with caregivers. Family-based interventions, including music therapy, may support developmental goals while also promoting positive parent–child interactions. Participation in music therapy experiences has been associated with improvements in socioemotional functioning, communication, and parental responsiveness (Jacobsen & Thompson, 2017). However, there remains a limited body of research specifically addressing family-based music therapy for children with Down syndrome, particularly in the context of remote service delivery. The onset of the COVID-19 pandemic further emphasised the need for flexible and accessible therapeutic models that could be delivered virtually (Blair et al., 2024). In response, we investigated the procedural feasibility of designing and implementing a telehealth-based, family-based music therapy program for children with Down syndrome. Specifically, we examined how music therapy can be conceptualised and adapted for synchronous real time delivery through videoconferencing (telehealth) and to what extent the observed therapeutic outcomes aligned with existing literature regarding benefits for both parents and children.

Our program was situated within the broader continuum of family-centred practice, an approach characterised by collaborative partnerships with families and attention to the needs of all family members—not solely the individual receiving services. It is family-based as it represents delivery of structured therapeutic services within the context of the family (parent-child dyads) in the home environment. Whereas family-centred care focuses on shared decision-making and holistic support, family-based services may prioritise targeted interventions designed to strengthen family functioning, enhance parent–child relationships, and support participation in daily routines (Family Voices, 2025; National Center on Substance Abuse and Child Welfare, 2025). This distinction helps clarify how we conceptualised our music therapy program as a targeted service delivery with family involvement. We further discuss our approach in the methods section.

Family-based music therapy goals address interactions, communication, and relationships. Evidence in the music therapy literature corroborates that participation in music therapy supports parents in developing their responsiveness toward their children. Parents who attend music groups with their children might be able to exhibit more positive interactions. In turn, their children may show increased social play (Walworth, 2009). Focusing on mutuality, Pasiali (2012) used music therapy to facilitate development of bidirectional responsive behaviours among parents and children, ages 3-5, who faced various socioemotional risks. Those positive behaviours emerged because participation in music therapy experiences provided opportunities to engage in pretend play, movement, communication through music, and development of flexible routines. Moreover, Thomspon & McFerran (2015) conducted a qualitative analysis of changes in parent-child relationships based on interviewing 11 mothers who had participated in 16 weeks of family-based music therapy sessions. Children were between the ages of 3 to 6 and had been diagnosed with autism. Participation in music therapy experiences such as improvisation and movement to music fostered interactive engagement

between parents and their children, leading to meaningful improvement in the parent-child relationship including the parent's perception of the child, and the parent's responses to the child. Music therapy helped the parents to see their child and not their disability (Thompson & McFerran, 2015).

Participation in music therapy sessions, provided for groups of parents with various needs in community settings, may also bring forth socioemotional benefits at child and parent levels. Participation in *Sing and Grow,* a large program of family-based music therapy in early intervention, has been researched extensively. Outcomes indicated that engagement in music therapy sessions may reduce parental mental health symptoms, increase children's communication skills, and provide opportunities for positive parent-child interactions. Group sessions in *Sing and* Grow include music-based experiences such as instrument play, action and movement songs, turn-taking, and sharing between parent and child (Nicholson et al., 2010; Williams et al., 2012).

Supporting parents in developing musical play and integrating music-based experiences in daily family life may transcend communication barriers and create smoother daily routines. For example, Yang (2016) designed a six-week home-based music program for parent-child dyads (for children with disabilities ages 1 to 3). The focus was supporting the parents in developing responsive strategies such as varied affect, reciprocal communicative exchanges, and supporting/responding to child play. Post-intervention, parents reported increased comfort using music with their children, which seemed to support both quantity and quality of dyadic interactions. Similarly, researchers have addressed how music can enrich and support the well-being of neurodiverse children, when parents are provided materials and resources. Shaughnessy et al. (2024) investigated how musical supports can be incorporated into the daily routines of autistic children and their families. They provided parents with instruments and a set of flashcards that included ideas and games for musical play (Shaughnessy, 2022). Twenty-five families received remote coaching and four in-person home visits. Results of interviews and thematic analysis at the end of the program showed that parents were able to use music to support communication skills, find opportunities for interactive and shared play, and establish routines (for transitions, regulation, and learning).

Even though music-based experiences can be beneficial, clinicians who work with children who have Down syndrome need to be aware that they may have difficulty being attentive or processing environmental stimuli (de l'Etoile, 2015). De l'Etoile (2015) found that both typically developing children and children with Down syndrome focus their attention on the parent during infant directed singing. However, infants with Down syndrome spend less time in intermittent gaze, indicating difficulties in switching attention. These findings highlight the importance of clinician awareness in family-based music therapy settings, particularly in observing how children respond to musical stimuli and in supporting attentional skills and self-regulation. In addition, parents may benefit from developing greater awareness and strategies to effectively engage and support their child's participation during music therapy sessions. Such awareness may be supported by formally introducing and coaching parents on how to use music at home.

Research on coaching parents to use music interventions with young autistic children—under the guidance of a trained music therapist—has shown promising results. Early findings point to improvements in both verbal and nonverbal joint attention during one-on-one interactions. Parents reported that the coaching approach is helpful, acceptable, and easy to access. Overall, parent coaching offers a practical way to empower caregivers to use music in ways that support their child's

development (Hernandez-Ruiz, 2020; Hernandez-Ruiz & Braden, 2021; Lense et al., 2022). Hernandez-Ruiz (2025) also examined telehealth parent coaching for using music-based experiences with their autistic children, ages 1 to 5. Parents who completed the program described it as both challenging and worthwhile. They reported perceived improvements in their children's social and communication skills, as well as positive shifts in family dynamics. For example, some parents felt they became more effective play partners. However, several also noted difficulties managing the needs of siblings, including challenges related to planning activities or feelings of jealousy over the attention given to the autistic child. Regarding the delivery mode, even though parents considered it convenient, they also reported distractors at their location, technological issues, and awkwardness with singing or attempting some of the music-based experiences in front of a camera.

Knowing that music therapy can be beneficial for families who have children with varied needs necessitates finding more nuanced ways of service delivery. While telehealth music therapy was an emerging practice, it became the main means of receiving services during the COVID-19 pandemic. Therapists indicated that key benefits of telehealth included increased access and convenience, despite drawback such as limited access to instruments, technological issues such as latency/lag, or needing in vivo/in-person support to participate (Clements-Cortés et al., 2023). Researchers reported that telehealth delivery of services may allow sick children to still participate in sessions (Fuller & McLeod, 2019) and engage families who face geographic isolation or lack of transportation (Berry et al., 2022). Berry et al. (2021) delivered online sessions to 151 families. Parent feedback was positive, with some showing greater engagement during telehealth than in face-to-face sessions. Printable session booklets were also valued by partner organisations for supporting families effectively. However, other researchers, who collaborated with Head Start centres for telehealth, identified barriers to communication between early childhood professionals and families. Services were delivered in a group format at the early intervention centres with some children receiving additional individual sessions at home based on specific needs. Barriers included limited access to technology and the lack of a home environment suitable for telehealth (Knight & Blank, 2025).

Guided by the need to develop a telehealth music therapy program in response to the COVID-19 pandemic, we aimed to examine the procedural feasibility of designing and delivering live, synchronous family-based sessions in a telehealth format for children with Down syndrome. At the time of implementation (Fall 2020), best practices for virtual music therapy were still emerging, and little guidance existed on how to structure or evaluate such services. Knott and Block (2020) proposed a three-tiered framework for virtual music therapy delivery; our program aligned with Tier 3, which involves real-time music therapy sessions conducted through video and audio platforms. In collaboration with a community partner, we developed and implemented this program both as a response to service needs and as a clinical training opportunity for undergraduate students. For our small-scale observational study, we developed the following research questions to examine the feasibility and potential therapeutic alignment:

1. In what ways can family-based music therapy practice be conceptualised and adapted for Tier 3 telehealth delivery?
2. To what extent do the observed behavioural responses of parents and children during telehealth sessions align with therapeutic outcomes reported in the family-based music therapy literature?

Method

Design

We had initially planned to collect both observational and quantitative data using a single case pre-post design. However, with the shift to telehealth and the low number of participants, we only collected descriptive observational data. Hence, we recorded observations of our participants with the purpose of capturing their behaviours and participatory responses during telehealth sessions. Given the shift to telehealth and the small sample size, we focused data collection on descriptive tallies of predefined behaviours rather than narrative session-by-session profiles for each dyad. With this approach, we did not intend to generate single session qualitative case-narratives but to summarise overarching observed trends across sessions using an observational scale (see Materials section below). The study was approved by the University's Ethics Review Committee (File #728-CAS-690).

Description of the research team

The use of "we" in this manuscript indicates the shared responsibilities of developing the music-based experiences, implementing the program, and collecting observational data. This music therapy program emerged from a Course-based Undergraduate Research Experience (CURE) project (Bangera & Brownell, 2014). Our research team consisted of a music therapy professor and three undergraduate music therapy majors (who have since graduated and passed their board-certification exam).

Participants

Participants were parent-child dyads who were members of GiGi's Playhouse in Charlote, NC. Inclusion criteria were children between the ages of 2.5 to 8 with Down syndrome and one primary caregiver. Other than the child's age limit requirement, there were no exclusion criteria. We used pseudonyms to protect the identity of the families.

Materials

Intake questionnaire

We used an intake questionnaire to collect demographic information from participants and an observation checklist to assess each parent-child pair during the sessions. Using the intake questionnaire, we collected the following demographic data: parent/child age, gender, ethnicity, language spoken, marital status, highest level of education, income range, employment status, and family structure. The demographic data were like those collected by Williams et al. (2012) and Hernandez-Ruiz (2018). We added two open-ended questions for participants in the group: "What are your hopes and expectations for participating in music therapy sessions?"
and "What would you like the therapists to know about your child or your family prior to beginning music therapy sessions?"

K-6 Distress Scale (Kessler et al., 2002, 2003)

The K-6 Distress Scale consists of six items rated on a five-point Likert scale. It functions as a measure of psychological distress in the last 30 days prior to completing the scale. We used this scale as a screening tool to determine if a parent referral was needed for mental health supports. A K6 score ≥ 13 indicates severe and ≥ 5 moderate illness (Prochaska et al., 2012). Initial Cronbach's alpha was .89 (Kessler et al., 2002, 2003). A high reliability was corroborated through a meta-analysis mean Cronbach's *α* of 0.84 (Wojujutari & Idemudia, 2024) even though further subgroup analyses might be needed.

Observational scale

For data collection during the music therapy sessions, we relied on a modified implementation of the 6-Item Observational Checklist (Nicholson et al., 2008; Williams, 2010; Williams et al., 2012). The observational checklist is designed to be used by clinicians to rate interactions (six-items) for each parent-child dyad and was used by clinicians as a pre-tool (sessions 1 and 2) and post-tool (sessions 9 and 10). Each item can be rated as 1 (very low) to 5 (very high) to provide overall ratings with a higher score indicating consistent positive interactions (Williams, 2010). In modifying the scale, we used only 5 of the interactions, removing *social engagement* with other adults and peers, as it was not possible with the telehealth setting. Instead of using pre- and post- overall ratings, we used the operational definitions of each interaction, as stated in Williams (2010) to create specific goals and objectives (see table 1) and conduct frequency counts. We collected data from the third to the tenth session. The students tallied each occurrence of positive behaviours of parents toward the child (parent goal) and child toward parent (child goal). The definitions on the 6-Item Observational Checklist guided how we tallied behaviours across sessions and ensured consistent interpretation of both parent and child responses. Even though the data collection was done primarily by the second author, the entire team took observational notes during the session. We compared those notes during supervision to reach a consensus regarding the total tally of recorded behaviours.

Parent goal	Parent objective	Operationalisation/Response definition
Improve the quality of parental behaviour toward the child.	Each parent in the group will display at least two positive behaviours toward their child during each session.	Positive behaviours are defined as *sensitivity* (demonstrated through awareness of the child's signals), *engagement* (the effective engagement of the child in the program), and *acceptance* (acceptance of the child demonstrated through positive affect).
Child goal	**Child objective**	**Operationalisation/Response definition**
Improve the quality of the child's behaviour toward the parent.	Each child will display at least one positive behaviour toward their parent during each session.	Positive behaviours are defined as *responsiveness* (demonstrated through positive interactions with the parent), and *interest in/participation in* the program.

Table 1: Parent and child specific goals and objectives

Note: Operationalisation definitions are directly derived from the 6-Item Observational Checklist (Nicholson et al., 2008; Williams, 2010; Williams et al., 2012).

Recruitment

We worked directly with the executive director and the site coordinator of GiGi's Playhouse to distribute information about the music therapy telehealth opportunity. They published information in their monthly newsletter sent to families, shared a recruitment flyer through a listserv which included 185 registered families, and posted announcements through the company's social media. During the pandemic, the agency continued to communicate with families and provide online programming. Recruiting directly through this agency allowed our services to be integrated through their weekly programming as a current offering for families. Recruitment took place during August 2020, with four families expressing interest and three families signing informed consent.

We emailed the families who expressed interest in participating links to the informed consent, K6 scale, and intake questionnaire one week prior to an informational Q&A synchronous videoconferencing session (held on September 1st, 2020). We set up informed consent, and all our data collection measures via Microsoft Forms and sent links via email to participants. Music therapy telehealth sessions began the following week. Participating families received ten weekly music therapy sessions (from September 15th to November 17th, 2020), each lasting approximately 50 minutes, conducted via the GoToMeeting platform (GoTo, 2025). The sessions were once a week on Thursday afternoons (4:00pm) to avoid conflicts with virtual schooling.

Clinical training and preparation

The undergraduate students who served as clinicians/interventionists completed an elective course during Fall 2019, taught by the first author, which focused on designing and implementing early childhood music-based experiences appropriate for parent–child dyads. In Spring 2020, we applied for and received a James Rogers Summer Institute for Research and Creative Work grant at Queens University of Charlotte. This award provides stipends and resources for students and faculty mentors to engage in collaborative research.

Our initial program development and research proposal involved providing in-person music therapy sessions at GiGi's Playhouse in Charlotte, North Carolina. GiGi's Playhouse is a national non-profit organisation that aims to provide resources and networking opportunities for families of children and adults with Down syndrome (GiGi's Playhouse, 2025a). The Charlotte facility opened its doors in Spring 2019 (GiGi's Playhouse, 2025b) and has since provided free programming focused on education, therapy, career, and life skills development. However, due to COVID-19, we transitioned to developing and implementing a telehealth music-based intervention for parent–child dyads. We met synchronously online during Summer 2020 (June – July, 2020) to design the program and subsequently implemented the music therapy sessions during Fall 2020. All clinical training, which included mock sessions, occurred during Summer 2020. We engaged in weekly supervision and additional training, rehearsals, and modifications of music-based experiences as needed while implementing the music therapy sessions.

The music therapy program

We designed our program as a family-based music intervention with the primary aim of supporting caregivers as they engaged their children in music-making experiences. Specifically, we targeted responsiveness and active participation. The sessions were structured and pre-planned. Although we provided modelling, feedback, and encouragement to help parents facilitate musical interactions, the goal of the program was not to train parents to independently implement the strategies outside of the sessions. Parents received brief video highlights (approximately 3–5 minutes) following each session, along with occasional suggestions for ways they could try certain activities at home. Integrating some familiar children's songs in our sessions may have increased accessibility for families. We did not, however, include procedures to assess how or whether parents applied these strategies outside of the telehealth context.

In designing the program, we followed a thematic, developmentally appropriate sequence of music therapy experiences. While the structure directly involved parents in the therapeutic process —therefore aligning with a family-based model— it was less consistent with a family-centred approach, as we did not conduct an in-depth exploration of each family's cultural background, routines, or individualised goals. Our clinical stance balanced elements of an expert-led model with aspects of parent coaching. We developed a preset curriculum of music therapy experiences that we introduced and modelled for families, while also aiming to build their capacity to participate, practice skills, and take an active role during sessions. Student clinicians modelled musical strategies, observed parent–child responses in real time, and offered feedback and encouragement. Given the novelty of telehealth delivery and the developmental stage of the student clinicians, a more directive structure was necessary. However, we did incorporate creative flexibility through responsive prompting, adjustments to activities, and opportunities for parents to shape the interactions based on their child's needs.

The 10 session plans, which we included in the Supplemental Materials, had themes appropriate for early childhood (e.g., farm animals, bugs, body, sea animals, foods, trees, flowers and planting, and weather). There was a specific sequence for each music therapy session. We began by singing a "Hello Song," introducing the theme of the session, transitioning through planned experiences and leading a traditional folk or children's song as a sing-along prior to ending the session with a "Goodbye Song." For each theme, each student was responsible for planning a total of four music-based experiences that we referred to as 'therapeutic applications.' To help with transitions during the telehealth session, we used a PowerPoint that included titles and visual images relevant to the topic. We shared the screen so that the parents and children would see each slide as part of transitioning from one therapeutic application to another. The use of this type of visual support for a session schedule is also reported by other therapists using a telehealth model (Fuller & McLeod, 2019).

Although the program incorporated literacy-based thematic content, our primary focus was on designing music therapy experiences that supported interactional opportunities for the dyads. Our therapeutic applications were either re-creative or receptive experiences. Re-creative experiences included using songs to encourage pretend play (e.g., singing like a bird, stomping like a dinosaur, driving a car, walking to a restaurant etc.), vocalisation (e.g., making noises like sea and farm animals), instrument play (e.g., egg shakers, hand drums, a bowl used as a drum), and pre-academic skills

(e.g., counting, naming colours or shapes). Receptive experiences included moving in response to music. Those movements were cued but unstructured such as "walk heavy," or "walk light," or "move in your own space in response to the music" (e.g., feeling the fall breeze, swinging like trees, flying like a butterfly, flying high like an eagle, moving like a snail). Evidence shows that both sung songs (using a melody) and rhythmically spoken chants may support gains in word knowledge when compared to teaching vocabulary using picture cards only (Lawson-Adams et al., 2022). Like Fuller and McLeod (2019), we brought puppets or visual aids we used near the camera to increase visibility. Many of our music-based applications incorporated dancing and movement songs that required minimal use of props other than those available in the house.

During each supervision session, we discussed and identified how our use of musical elements such as rhythm, dynamics, and phrasing supported positive interactions. *Music Learning Theory*, developed by Edwin Gordon (2003), provided the theoretical underpinnings of developing our therapeutic application plans for the sessions. Based on music learning theory, our music-based experiences supported both listening to and imitating musical responses. All the experiences we provided incorporated different tonal patterns, (in varied tonalities such as Aeolian, Dorian, Phrygian, Mixolydian, Lydian, etc.) and rhythm patterns (in varied meters such as mixed/complex, duple and triple). Our focus was on creating playful and interactive experiences (Gordon, 2003). Using music learning theory, we also connected the structure of the musical elements in the songs and experiences we facilitated in our sessions to Laban's four effort elements (Papazachariou-Christoforou, 2022):

- *Time:* Movements can be either rapid or sustained, aligning with the tempo and rhythm of the music. Students may respond to the beat by moving in ways that reflect various rhythmic patterns through fast and slow actions.
- *Weight:* Movements can vary in force, from heavy to light or strong to gentle, corresponding with the dynamics and expressive intensity of the music. Students can explore these contrasts by adjusting the strength of their movements to match changes in the volume and energy of the music.
- *Space:* Movements can be direct or indirect and occur at different levels, in different directions, and in various shapes, connecting with the phrasing and contour of a melody. Students may travel through space to mirror the shape of a melody, using movements that reflect its rise and fall. They can also explore articulation through movements that are either constrained (bound) or flowing (free), expressing musical phrasing and articulation.
- *Flow:* Movements can be continuous or controlled, symbolizing different types of musical articulation and phrasing.

To adapt these movement experiences effectively for telehealth delivery, we were intentional about selecting movement elements that could be facilitated within the constraints of a child's home environment, limited camera frame, and varied space availability. The Laban effort elements —time, weight, space, and flow— provided a structure that allowed us to design movements that could be modelled through the screen, while still supporting children's regulatory and engagement needs. For example, contrasts in *time* (rapid vs. sustained movements) and *weight* (light vs. strong actions) translated well in a telehealth context because they required minimal locomotion but invited expressive whole-body participation. Similarly, focusing on *space* through directionality and levels

allowed children to explore movement within their immediate area, even when their available space was small or when they moved in and out of the camera's view. Incorporating *flow* (continuous vs. controlled movement) supported opportunities for regulation, especially for children who benefitted from repetitive or soothing motion reinforcing awareness of body in space. The concepts also appeared concrete and easy for parents to grasp and model in vivo with their children. These adaptations provided movement-based experiences that were accessible, visible, and meaningful during telehealth sessions while aligning with established therapeutic aims and developmental considerations.

After each session, we reviewed the videotapes and created short videos (about five minutes in length) that captured positive bidirectional interactions. We emailed those videos to the parents and sent them some materials and the PowerPoint of our session plan. Included were instructions on how they can reinforce some of the skills we emphasised during the session. Please refer to the Supplemental Materials for a full description of all the music therapy experiences we provided during our sessions.

Results

Demand, retention and adherence

A total of four caregivers/parents expressed interest in music therapy, but only three attended the Q&A session and completed the informed consent form. Three families participated in the first music therapy session. However, one family withdrew from the study after the first session, citing difficulties with attention and how the telehealth format did not seem to work for them (the child was not engaged and the parent felt overwhelmed trying to support participation). The remaining two families continued with the telehealth sessions as scheduled. Like Hernandez-Ruiz (2025), we calculated the demand rate by counting the participants who signed informed consent divided by inquiries. The demand was 75%. The retention rate, calculated as the ratio of parents who completed the treatment divided by the number of initial participants, was 66.67%.

Dyad 1 attended all sessions. However, on session 8 they attended only the first 20 minutes due to internet connectivity issues; the screen kept freezing, which impacted data collection. Dyad 2 accidentally missed session 5 because they said they forgot – thus adherence was 90%.

Dyad 1: Jn. (child) and Ja. (mother)

Intake questionnaire

Jn. was a five- and two-months old girl with Down syndrome. Her mother was in her 40s and identified as Hispanic/Latino origin. Ja. indicated the race of her child as white, which perhaps indicates mixed cultural backgrounds. The mother had completed a bachelor's degree. At home, they spoke both English and Spanish as the primary languages. The mother indicated she was married. She opted not to report household income and present work status. At the time of this study there were five people in the household (husband and two additional older siblings – one sister, one brother). Ja. attended

the sessions with her daughter but sometimes the siblings were in the background completing homework or other tasks. Ja. did not provide any additional information about her family or express any hopes or expectations about the music therapy session.

K6 Distress Scale

The K6 Distress Scale score was 4, indicating a lack of moderate or serious psychological distress.

Observational data

Figure 1 represents the tallied positive responses/interactions between the dyad. No data were collected on session 8 due to internet connectivity issues for the family. Consistent with our observational design, in figure 1 we recorded the consensus total of tallied positive behaviours. In previous uses of the 6-Item Observational Checklist (Nicholson et al., 2008; Williams, 2010; Williams et al., 2012), clinicians rated each interaction item using a Likert-like scale (1 – very low to 5 – very high) for pre and post purposes. The average of total tallies for sessions three and four and sessions nine and ten was 12 and 18 respectively (a 50% increase). Even without the subjective Likert rating, the data trends show that both child and parent objectives were met through an observed increase in the number of positive interactions across sessions.

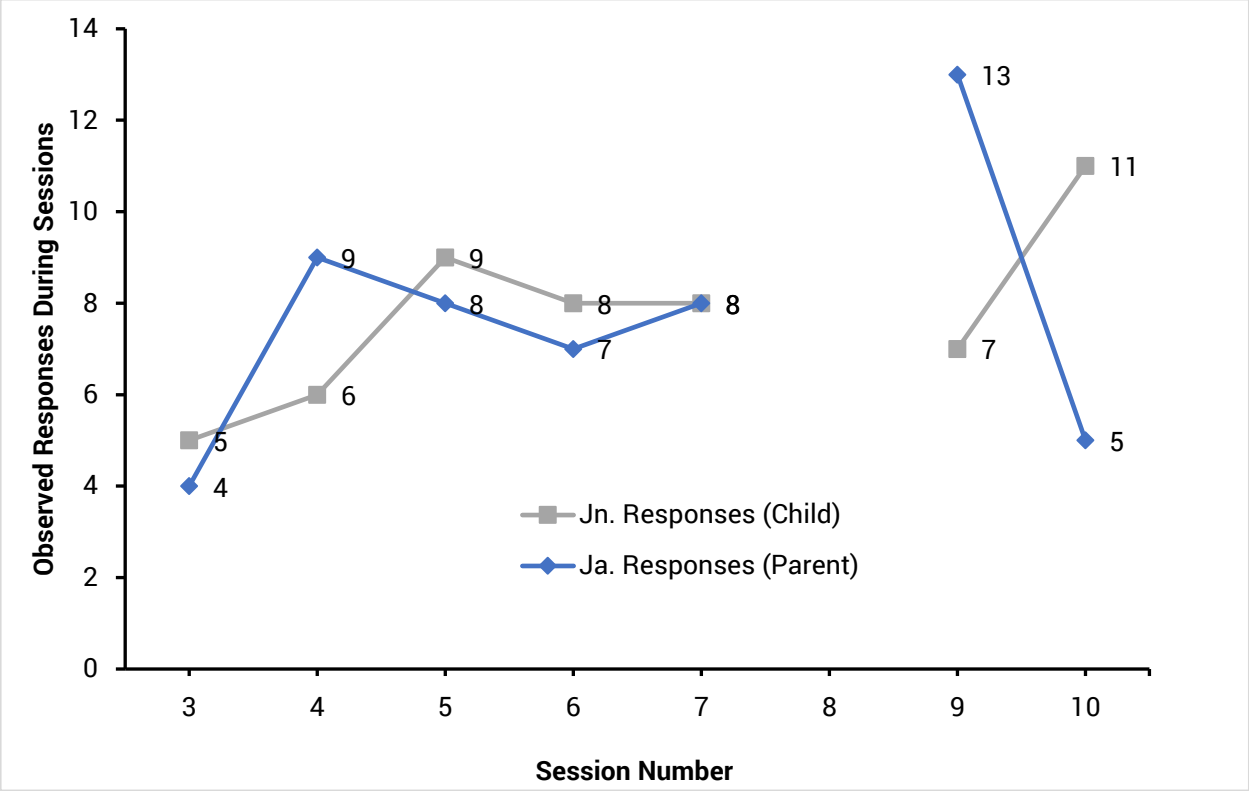

Figure 1: Dyad 1 Parent and child responses

Note: No data collected on session 8 due to lagging and internet connectivity issues with the dyad only attending the first 20 minutes of the session.

Dyad 2: A. (child) and S. (mother)

Intake questionnaire

A was a five-and-eight-months old boy with Down syndrome. His mother was in her 20s and identified both her race and her son's race as Black or African American. S. completed a bachelor's degree and was currently unemployed not looking for a job. The family's self-reported income was above 50,000 per year. At the time of this study, there were four people in the household (husband and one additional sibling). S. shared that her son loved music and that her hope was for music therapy to enhance his language.

K6 Distress Scale

The K6 Distress Scale score was 3, indicating a lack of moderate or serious psychological distress.

Observational data

Figure 2 represents the tallied positive responses/interactions between the dyad. Both child and parent objectives were met. The observed trend also indicates an increase in the number of positive interactions across sessions. No data were collected on session 5 due to absence (parent accidentally forgetting about the session). The average of total tallies for sessions three and four and sessions nine and ten was 9 and 17.5 respectively (94.44% increase).

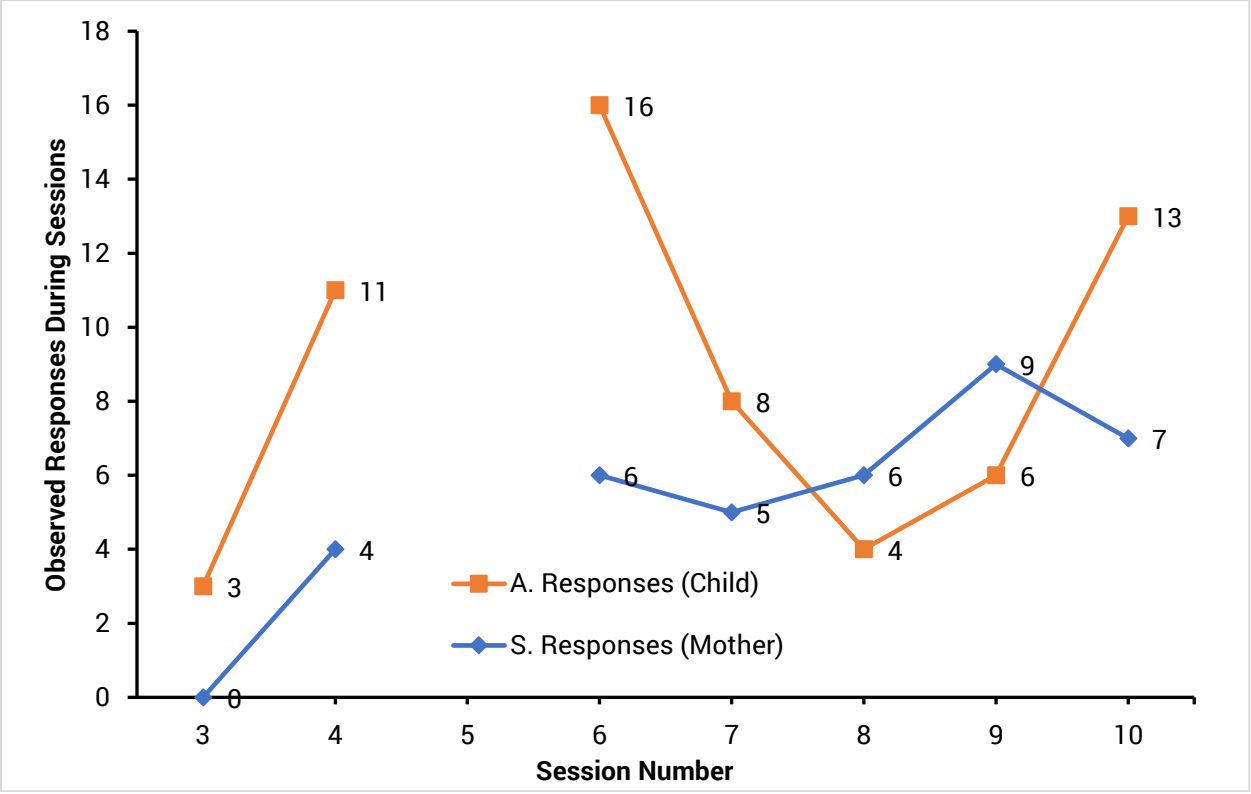

Figure 2: Dyad 2 Parent and child responses

Note: No data on session 5 due to parent forgetting about the session and not attending.

Overall observations

Consistent with our observational design, in figures1 and 2 we captured tallied positive behaviours rather than session by session detailed responses. Thus, our overall observations are limited to the pattern of responses across sessions, without constructing per session case vignettes. Our anecdotal observations and session notes indicated that parents promoted responsiveness and participation by orienting themselves towards their child and asking a question. Those were done in response to a verbal cue by one of the therapists (e.g., Jn. unmute and show us how you move your scarf). We offered prompts for both physical/movement and verbal responses. We observed that parents supported participation by modelling responses or demonstrating the movements relevant to the music experiences we were providing. Both parents showed positive affect while modelling. However, when their child actively responded (regardless of the accuracy of the responses), their affect brightened further. On one instance, we noticed that A. gave his mother a hug and they rocked back and forth together in response to the provided music.

We observed that the children reacted to our questions and prompts by following directions, engaging in musical interactions (e.g., peek-a-boo at the end of a musical phrase), or completing movements (e.g., pretend play of rolling a pizza dough). Jn. was seated in front of a desk and had direct eye-contact towards our camera. Thus, we could clearly notice her responses during the music-based experiences. A. would sometimes be on the floor, move away and fidget, or get distracted. His mom stayed visible in the camera, and A. returned to be close to her and re-engage in the session. S. was sensitive to her child's need to regulate by moving away and was not forceful in asking that he reengage in the session. This behaviour is something we reinforced and supported as we judged it was developmentally appropriate and supportive of A.'s needs.

Discussion

In this study, we collaborated with a community partner to develop a virtual (telehealth) music therapy program for children with Down syndrome and their parents. The program aligned with Tier 3 services as outlined by Knott and Block (2020), offering synchronous weekly music therapy sessions through an online video/audio platform. Our focus was on conceptualizing the telehealth delivery of music therapy and exploring its feasibility. Additionally, we conducted observations to assess how participants' responses aligned with or supported outcomes reported in the existing music therapy literature.

Question 1: Conceptualisation and adaptation

Our community partner served 168 families; however, our recruitment criteria specified an age range of 2.5 to 8 years, and we were unable to determine how many of those families had a child within that specific age span. Additionally, our recruitment period was relatively short —only four weeks— compared to other researchers who had extended recruitment timelines to increase sample size (Hernandez-Ruiz, 2025). Hernandez-Ruiz (2025) reported that 59.3% of parents who inquired about the study ultimately enrolled. In our case, the demand appeared higher, with a 75% enrolment rate: of the four families who inquired, three signed consent forms. Hernandez-Ruiz (2025) hypothesised that

despite the growing normalisation of telehealth at the time, parents may have experienced fatigue due to increased responsibilities and prolonged exposure to virtual instruction. In contrast, our study took place during the early stages of the COVID-19 pandemic, when many families were still navigating logistical challenges and may have lacked access to adequate equipment or internet bandwidth for telehealth music therapy. Clements-Cortés et al. (2025) identified lack of adequate technology or reliable internet as accessibility barriers. Berry et al. (2021) similarly reported participation barriers such as limited data plans, the absence of an appropriately sized device, or the need to prioritise a single large-screen device for school-aged children. Comparable barriers may have also impacted our ability to recruit participants.

As Clements-Cortés et al. (2025) found, children or clients who have difficulty in physical regulation may not be as well served, and caregivers do play a crucial role in facilitating sessions. It is encouraging that, of the three parents who signed consent forms, two families completed the program. One family withdrew after the first session, noting challenges with their child's ability to focus and the parent's difficulty managing or redirecting attention in the telehealth format. However, the remaining two families completed the intervention with minimal disruptions. Dyad 1 experienced connectivity issues that impacted one session, while Dyad 2 missed a session due to a scheduling oversight. Overall, adherence to the program was 90%, suggesting a strong level of commitment from participating parents to complete the intervention. Issues with lagging and connectivity were also reported by other music therapists who use telehealth (c.f. Clements-Cortés et al., 2025).

Abad et al. (2023) found that parents who choose to attend music therapy sessions often perceive music as a valuable tool in supporting their child's development. These findings suggest that education and awareness may play a crucial role in recruitment efforts. Rather than stemming from negative misconceptions about music therapy, parents' hesitations to engage in music therapy research appear to be due to a general lack of knowledge—both about music therapy itself and the nature of research participation. In virtual focus groups, parents indicated they would be more willing to participate in research if they first learned about it from trusted providers. This research finding underscores the importance of disseminating information about music therapy through multiple, credible channels (Hernandez-Ruiz & Lehrer, 2022). Future recruitment strategies might benefit from offering informational sessions, trial or pilot opportunities (e.g., "come try a session"), and direct engagement with providers to build rapport and foster buy-in. Additionally, educating providers through seminars and demonstrations could help them serve as ambassadors for music therapy, encouraging participation through word-of-mouth referrals. Sole reliance on direct recruitment methods such as social media posts or newsletter announcements may not be sufficient to convey the value of music therapy participation. Enhancing parents' perception of the potential benefits —especially when weighed against the significant time investment required— may be key to improving recruitment outcomes in future studies.

Similar to other therapists' reports (Clements-Cortés et al., 2023), we also found that active music making and improvisation were difficult to execute in telehealth. We found that providing clear instructions on when to mute and unmute significantly facilitated participation and helped prevent auditory overlap caused by latency or lag. While smooth transitions between activities took a few sessions to establish, the process improved over time, reinforcing the recommendation to conduct a technology practice run before beginning telehealth-based music therapy programs. Music-based and

movement experiences effectively supported engagement and interaction. When prompting verbal or sung/tonal responses, using specific cues such as "[Name], unmute and show us/tell us…" helped maintain structure and reduce sound issues by ensuring only one dyad was unmuted at a time. This turn-taking approach was effective in managing virtual response delays. Both parents adapted well to the telehealth format and to the modelling strategies used during sessions. We also sent reminder emails that included information on household materials to have ready for each session. Both families arrived prepared, suggesting that these communications were successful. Overall, modelling movement-based experiences and facilitating parent-child interactions through intentional song use appeared to function effectively within the telehealth context.

Question 2: Alignment with therapeutic outcomes

For answering the research question as to what extent does the observed therapeutic impact of telehealth sessions align with existing literature regarding outcomes for both children and parents, we believe our data collection and visualisation (figures 1 and 2) indicated that our music-based experiences allowed for active participation and supported bi-directional positive interactions between the two dyads who completed the program. We acknowledge that the data needs to be interpreted with caution due to the plotted values fluctuating considerably. The fluctuations reflected observed positive interactions, though the bidirectional nature of responses, combined with occasional limitations in video quality, sometimes prevented us from clearly identifying whether the parent or the child initiated the behaviour. Another observational method (e.g., interval recording) may have better allowed us to capture continuous behaviours, since at times it was also difficult to discreetly document a clear beginning and end for each positive interaction.

As indicated in Pasiali (2012), we observed instances of harmonious communication with smooth interactions (e.g., playing with props, assisting a child, singing together), back and forth (e.g., turn taking playing an instrument, improvising a rhythmic pattern, modelling ways to engage with props). Regarding cooperation, we noted both encouragements to participate, and redirection to focus their child's attention to the facilitators on the screen. There were instances of shared intimacy or seeking comfort from each other (e.g., hugging or swaying to our singing). Dyad 2 avoided conflict since the parent afforded opportunities for the child to use sensory toys or move away from the screen (e.g., move to the floor, run around the room, and then return to seat). Often, the parent turned the camera so we could see the child was at a different area of the room yet still engaged in musical responses.

During the music therapy sessions, both participating parents engaged readily with the music-based experiences and did not appear hesitant to try any of the strategies presented. Unlike Hernandez-Ruiz (2025), we did not collect direct feedback from parents regarding any challenges they may have faced in implementing the strategies during or outside of sessions. Nonetheless, both dyads appeared successful in engaging their children while avoiding signs of frustration throughout the sessions. This effective engagement may, in part, be attributed to the fact that neither parent reported high levels of psychological distress—potentially indicating a greater capacity to interact positively with their children. Although previous research has shown that families scoring below the mean in responsiveness and self-efficacy related to nurturance can exhibit statistically significant

improvements following participation in family-based music therapy (Higgins et al., 2020), these outcomes were not directly assessed in our study. Observationally, both parents demonstrated consistent and confident engagement with their children. How this capacity is fostered or supported through telehealth delivery of music therapy remains an important area for future investigation. While our figures depict dyad-specific trends, our study design was not conducive to capturing detailed per session narratives of change. Future work can incorporate session-level coding protocols and single-case analytic strategies to depict within dyad trajectories across time.

Music therapy telehealth recommendations

Results from this feasibility study highlight several considerations for music therapists delivering family-based music therapy via telehealth. In table 2, we synthesised key recommendations and procedural insights from the implementation of our program. We hope that the collated information will provide a practical foundation for clinicians aiming to implement developmentally appropriate, family-based music therapy in a telehealth format.

Key finding	Identified challenges	Recommendations
Prepare families for telehealth technology logistics	• Internet connectivity issues disrupted participation and data collection. • Telehealth required parents to manage attention, movement, and environmental distractions, which some families may find overwhelming. • Latency and audio overlap made synchronous music-making and improvisation difficult.	• Conduct a *technology practice session* before the first treatment session to test audio, connectivity, and microphone settings. • When possible, encourage use of a *larger screen* (e.g., tablet or computer) to improve visibility and engagement. • Provide families with *simple troubleshooting tips* (e.g., improving bandwidth, closing apps, turning off HD video). • Use *mute/unmute cueing protocols* to reduce auditory overlap. • Plan session structures with predictable routines to compensate for potential technological disorganisation.

Modify experiences to work within telehealth constraints	• Children sometimes moved out of camera view or moved around the room, making engagement harder to observe.
	• Expressive and movement-based musical play had to be modified to fit limited home spaces and camera frames.
		• Design music experiences that invite *whole-body expression without requiring large movement,* such as:
		  • contrasting movements (fast/slow, heavy/light)
		  • simple directional gestures (up/down, near/far)
		• Offer *clear, concrete movement cues,* which translate well to telehealth and support regulation.
		• Encourage parents to reposition the camera if their child moves so clinicians can maintain observational contact.
		• Select props that families are likely to have at home (scarves, household objects, plastic bowls as drums).

Support parents as active facilitators	• Parents were essential in modelling behaviours,	• Offer *brief coaching moments* during sessions but avoid overwhelming parents with technical or therapeutic responsibilities.

	redirecting attention, and prompting participation. • One parent discontinued because managing the child's attention during telehealth felt overwhelming. • The program was intentionally not designed as a parent training model, though parents were coached in session.	• Reinforce parents' natural, responsive behaviours (e.g., gentle prompting, modelling, supporting regulation). • Normalise children's need to move away from the camera and reassure parents that this is developmentally appropriate. • Provide *short highlight videos* after sessions to reinforce parent skill awareness. • Share simple "Try this at home" suggestions without requiring parents to implement structured home programming.
Balance predictability with flexibility	• Transitions were sometimes challenging until families became accustomed to the session flow. • The program relied on a preset curriculum, which was clinician-led but still needed flexible responsiveness.	• Use a *consistent sequence* each week (hello song, themed experiences, alternating use of props/types of activities, mix of familiar and unfamiliar songs, goodbye song). • Incorporate *visual supports* such as PowerPoint slides to cue transitions. • Allow creative variation within structured activities so clinicians can adjust based on the child's moment to moment needs. • Train clinicians (through supervision) on how to adapt responsively within structured telehealth formats.
Strengthen recruitment and retention by increasing awareness and reducing barriers	• Some families lacked adequate technology or bandwidth for telehealth. • One family withdrew early because the telehealth format felt incompatible with their child's needs. • Recruitment through newsletters alone may not fully convey the value of the intervention.	• Provide *informational sessions or trial classes* to demonstrate what telehealth music therapy looks like. • Engage trusted providers or community partners to introduce the program, as families rely on relationships when deciding to participate. • Offer *flexible scheduling options* to reduce fatigue or conflicts with virtual schooling. • Prepare families in advance with a list of simple materials to gather for each session.
Recognise which children may need additional support or in-person services	• Children with significant challenges in physical regulation or sustained attention may struggle with telehealth. • One dyad withdrew due to the child's difficulty engaging in the virtual format.	• Screen families for attention, regulation, and environmental supports before beginning telehealth services. • Discuss expectations openly with caregivers, including the possibility that telehealth may not be the best fit for every child. • For families who need additional support, offer *hybrid options*, individual rather than group sessions, shorter sessions, or increased breaks.

Table 2: Challenges and music therapy implications

Conclusion

The findings from this small-scale observational study offer promising insights into the feasibility of delivering music therapy to children with Down syndrome and their parents via telehealth. Future researchers can aim to recruit a larger and more diverse sample to account for individual variability among children with Down syndrome, as well as potential cultural and contextual differences. Comparative studies evaluating telehealth versus in-person delivery would provide valuable data on the relative effectiveness of each format. To strengthen scientific evidence, researchers may incorporate standardised outcome measures—such as parent competence scales, assessments of school readiness, and attentional skills. Additionally, extending the recruitment period and integrating strategies such as sample sessions, informational workshops, and in-service seminars for parents and direct service providers may enhance engagement and enrolment in research studies. As telehealth continues to evolve, understanding how it supports or challenges caregiver-child interactions in music therapy will be critical to refining service delivery and maximising therapeutic outcomes.

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Author contributions

Varvara Pasiali: Conceptualisation (lead), Methodology, Formal analysis (lead), Investigation, Resources (lead), visualisation (supporting), Writing- original draft, Project administration, Supervision. Yenchun Ko: Conceptualisation, Data curation (lead), Formal analysis (supporting), Investigation, Visualisation (lead), Resources, Writing — review & editing, Funding acquisition. Gabrielle Frens: Conceptualisation, Investigation, Resources, Writing — review & editing, Funding acquisition. Molli Smith: Conceptualisation, Investigation, Resources, Writing — review & editing, Funding acquisition.

AI usage

We used artificial intelligence (AI) tools during the writing and development process of this manuscript. Microsoft Editor was used for grammatical and stylistic corrections during manuscript preparation. Additionally, Microsoft Copilot was used for proofreading and during the ideation process related to the development of Table 2, "Challenges and Music Therapy Implications." We reviewed and approved all final content, interpretations, and conclusions.

Conflict of interest

The authors have no conflicts of interest to report.

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Data availability statement

The data supporting the findings of this study are presented within the manuscript figures and tables. Due to the small sample size and the nature of the study, no further data is available.

References

Abad, V., & Barrett, M. S. (2023). Laying the foundations for lifelong family music practices through Music Early Learning Programs. *Psychology of Music*, *51*(4), 1059-1079. https://doi.org/10.1177/0305735620937780

Bangera, G., & Brownell, S. E. (2014). Course-based undergraduate research experiences can make scientific research more inclusive. *CBE Life Sciences Education*, *13*(4), 602–606. https://doi.org/10.1187/cbe.14-06-0099

Berry, L., Oreopoulos, J., & Higgins-Anderson, J. (2021). Innovations and adaptations of a national music therapy program during COVID lockdowns. *Australian Journal of Music Therapy, 32*(1), 42-51.

Blair, M., Tweedlie, L., Minnis, H., Cronin, I., & Turner, F. (2024). Online therapy with families-what can families tell us about how to do this well? A qualitative study assessing families' experience of remote dyadic developmental psychotherapy compared to face-to-face therapy. *Plos One*, *19*(4), e0301640. https://doi.org/10.1371/journal.pone.0301640

Centers for Disease Control and Prevention (2024). *Down syndrome.* https://www.cdc.gov/birth-defects/about/down-syndrome.html

Clements- Cortés, A., Pranjić**,** M., Knott, D., Mercadal-Brotons, M., Fuller, A., Kelly, L., Selvarajah, I., & Vaudreuil, R. (2023). International music therapists' perceptions and experiences in telehealth music therapy provision. *International Journal of Environmental Research and Public Health, 20*(8). https://doi.org/10.3390/ijerph20085580

Clements-Cortés, A., Fuller, A., Kelly, L., Pranjić, M., Selvarajah, I., Brotons, M. M., & Bridi, N. (2025). Music therapists' global perspectives on telehealth music therapy: A qualitative interview inquiry. Music Therapy Perspectives, 43(1). https://doi.org/10.1093/mtp/miae030

de l'Etoile, S. K. (2015). Self-regulation and infant-directed singing in infants with Down syndrome. *Journal of Music Therapy*, *52*(2), 195–220. https://doi.org/10.1093/jmt/thv003

Family Voices. (2025). *Family centered care.* https://familyvoices.org/familycenteredcare/

Fuller, A. M., & McLeod, R. G. (2019). The connected music therapy teleintervention approach (CoMTTA) and its application to family-centred programs for young children with hearing loss. *Australian Journal of Music Therapy, 30*, 12-30.

GiGi's Playhouse. (2025a.). *How GiGi's began.* https://gigisplayhouse.org/charlotte/how-gigis-began/

GiGi's Playhouse. (2025b). GiGi's Playhouse Charlotte. https://gigisplayhouse.org/charlotte/about/

GoTo. (2025). GoToMeeting [Computer software]. https://www.gotomeeting.com

Gordon, E. (2003). *Music learning theory for newborn and young children*. Gia.

Higgins, J., Oreopoulos, J., Williams, K., Berry, L., & Savage, S. (2020). *The impact of a music therapy program on parenting capacity and child development outcomes. https://aifs.gov.au/resources/short-articles/impact-music-therapy-program-parenting-capacity-and-child-development*

Hernandez-Ruiz, E. (2018). Music therapy and Early Start Denver Model to teach social communication strategies to parents of preschoolers with ASD: A feasibility study. Music Therapy Perspectives, *36*, 26–39. https://doi.org/10.1093/mtp/mix018

Hernandez-Ruiz, E. (2020). Feasibility of parent coaching of music interventions for children with ASD. *Music Therapy Perspectives, 38*(2), 195–204. https://doi.org/10.1093/mtp/miz016

Hernandez-Ruiz, E. (2025). Parental demand, learning, and satisfaction with virtual parent coaching of music interventions. *The Journal of Music Therapy, 62*(1) https://doi.org/10.1093/jmt/thaf004

Hernandez-Ruiz, E., & Braden, B. B. (2021). Improving a parent coaching model of music interventions for young autistic children. *Journal of Music Therapy, 58*(3), 278–309. https://doi.org/10.1093/jmt/thab008

Hernandez-Ruiz, E., & Lehrer, G. (2022). "Music therapy was never on the table": Perspectives of parents of young autistic children. *Journal of Music Therapy*, *59*(3), 307–339. https://doi.org/10.1093/jmt/thac008

Jacobsen, S. L., & Thompson, G. (2017). *Music therapy with families: Therapeutic approaches and theoretical perspectives* (1st ed.). Jessica Kingsley Publishers.

Kessler R. C., Andrews G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand S. L., et al. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, *32*(6), 959–976. https://doi.org/10.1017/S0033291702006074

Kessler, R. C., Barker, P. R., Colpe, L. J., Epstein, J. F., Gfroerer, J. C., Hiripi, E., ... & Zaslavsky, A. M. (2003). Screening for serious mental illness in the general population. *Archives of General Psychiatry*, *60*(2), 184-189. https://doi.org/10.1001/archpsyc.60.2.184

Knight, A., & Blank, C. A. (2025). An analysis of caregiver perceptions of early childhood music therapy telehealth groups, *Approaches: An interdisciplinary Journal of Music Therapy.* Advanced online publication. https://doi.org/10.56883/aijmt.2025.589

Knott, D., & Block, S. (2020). Virtual music therapy: Developing new approaches to service delivery, *Music Therapy Perspectives, 38*(2), 151–156. https://doi.org/10.1093/mtp/miaa017

Lawson-Adams, J., Dickinson, D. K. & Donner, J. K. (2022). Sing it or speak it?: The effects of sung and rhythmically spoken songs on preschool children's word learning. *Early Childhood Research Quarterly, 58*(1), 87–102. https://doi.org/10.1016/j.ecresq.2021.06.008

Lense, M., Liu, T., Booke, L., Crawley, Z., & Beck, S. (2022). Integrated parent–child music classes for preschoolers with and without autism: Parent expectations and experiences. *Annals of the New York Academy of Sciences, 1517*(1), 78–87. https://doi.org/10.1111/nyas.14875

National Center on Substance Abuse and Child Welfare. (2025). Family-centered approach. https://ncsacw.acf.gov/topics/family-centered-approach/

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*, 226-238.

Nicholson, J. M., Berthelsen, D., Williams, K. E., & Abad, V. (2010). National study of an early parenting intervention: Implementation differences on parent and child outcomes: Parenting program implementation. *Prevention Science*, *11*(4), 360–370. https://doi.org/10.1007/s11121-010-0181-6

Papazachariou-Christoforou, M. (2022). Movement experiences in preschool music classes. *Journal of General Music Education, 36*(1), 13-20. https://doi.org/10.1177/27527646221110863

Pasiali, V. (2012). Supporting parent-child Interactions: Music therapy as an intervention for promoting Mutually Responsive Orientation. *Journal of Music Therapy*, *49*(3), 303–334. https://doi.org/10.1093/jmt/49.3.303

Prochaska, J. J., Sung, H. Y., Max, W., Shi, Y., & Ong, M. (2012). Validity study of the K6 scale as a measure of moderate mental distress based on mental health treatment need and utilization. *International Journal of Methods in Psychiatric Research*, *21*(2), 88-97. https://doi.org/10.1002/mpr.1349

Shaughnessy, C. (2022). *Tuning in: Autism*. https://tuninginautism.com/resources

Shaughnessy, C., Ockelford, A., Bonneville-Roussy, A., & Mann, W. (2024). Building musical lives: The impact of supporting musical play in the everyday lives of autistic children and their families. *Psychology of Music*, *52*(3), 267-283.

Thompson, G., & McFerran, K. S. (2015). "We've got a special connection": Qualitative analysis of descriptions of change in the parent–child relationship by mothers of young children with autism spectrum disorder. *Nordic Journal of Music Therapy*, *24*(1), 3–26. https://doi.org/10.1080/08098131.2013.858762

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, 45*(1), 32-52. https://doi.org/10.1093/jmt/46.1.32

Williams, K. E. (2010). The effectiveness of a short-term group music therapy intervention for parents who have a child with a disability (Master's thesis, Queensland University of Technology). Queensland University of Technology, Australia.

Williams, K. E., Berthelsen, D., Nicholson, J. M., Walker, S, & Abad, V. (2012). The effectiveness of a short-term music therapy intervention for parents who have a child with a disability. *Journal of Music Therapy, 49,* 23-44. https://doi.org/10.1093/jmt/49.1.23

Wojujutari, A. K., & Idemudia, E. S. (2024). Consistency as the currency in psychological measures: A reliability generalization meta-analysis of Kessler Psychological Distress Scale (K-10 and K-6). *Depression and Anxiety*, *2024*(1), 3801950. https://doi.org/10.1155/2024/3801950

Yang, Y-H. (2016). Parents and young children with disabilities: The effects of a home-based music therapy program on parent-child interactions. *Journal of Music Therapy, 53*(1), 27-54. https://doi.org/10.1093/jmt/thv018

Ελληνική περίληψη | Greek abstract

Μουσικοτροπία στο GiGi's Playhouse: Η ανάπτυξη και εφαρμογή ενός προγράμματος τηλεϊατρικής οικογενειακής μουσικοθεραπείας για παιδιά με σύνδρομο Down

Βαρβάρα Πασιαλή, Yenchun Ko, Gabrielle Frens, Molli Smith

Μετάφραση: Μαρία Ραπτοπούλου

Περίληψη

Σε αυτή την παρατηρητική μελέτη μικρής κλίμακας, εξετάσαμε την σκοπιμότητα και τα πιθανά θεραπευτικά οφέλη της παροχής ενός οικογενειακού προγράμματος μουσικοθεραπείας, που βασίζεται στην τηλεϋγεία, για παιδιά με σύνδρομο Down και τους φροντιστές τους. Σε συνεργασία με έναν κοινοτικό εταίρο, αναπτύξαμε και εφαρμόσαμε ένα πρόγραμμα 10 εβδομάδων κατά τη διάρκεια της πανδημίας COVID-19, τόσο ως μια πρωτοβουλία παροχής υπηρεσιών, όσο και ως μια ερευνητική εμπειρία ενός προπτυχιακού προγράμματος σπουδών (CURE; Bangera & Brownell, 2014). Δύο δυάδες γονέα-παιδιού ολοκλήρωσαν την παρέμβαση, συμμετέχοντας σε θεματικές εμπειρίες βασισμένες στη μουσική, σχεδιασμένες να προάγουν θετικές αλληλεπιδράσεις γονέα-παιδιού. Τα δεδομένα παρατήρησης που συλλέχθηκαν χρησιμοποιώντας μια τροποποιημένη έκδοση της Λίστας Ελέγχου Παρατήρησης 6 Στοιχείων (Nicholson et al., 2008; Williams et al., 2012) υπέδειξε συνεπή επίτευξη των στόχων συμπεριφοράς γονέων και παιδιών. Συγκεκριμένα, καταγράψαμε αυξήσεις στη θετική συναισθηματική κατάσταση, την ανταπόκριση και τη συμμετοχή σε όλες τις συνεδρίες. Οι γονείς έδειξαν αποτελεσματικά παραδείγματα στρατηγικών συμμετοχής και προσαρμόστηκαν στη μορφή της μουσικοθεραπείας που παρεχόταν ταυτόχρονα σε πραγματικό χρόνο μέσω τηλεδιάσκεψης (τηλεϋγεία), ενώ τα παιδιά επέδειξαν ενεργή συμμετοχή μέσω λεκτικών, μουσικών και κινητικών ανταποκρίσεων. Τα αποτελέσματα υποδηλώνουν ότι η παροχή τηλεϊατρικής οικογενειακής μουσικοθεραπείας είναι διαδικαστικά εφικτή και μπορεί να υποστηρίξει αμφίδρομες αλληλεπιδράσεις γονέα-παιδιού για τις οικογένειες παιδιών με σύνδρομο Down. Οι συστάσεις για μελλοντική έρευνα περιλαμβάνουν την επέκταση του μεγέθους του δείγματος, την ενσωμάτωση τυποποιημένων μέτρων έκβασης και τη σύγκριση των μορφών δια ζώσης παροχής υπηρεσιών με αυτές της τηλεϋγείας.

Λέξεις κλειδιά

οικογενειακή μουσικοθεραπεία, σύνδρομο Down