International Journal of Education and Humanities (IJEH), 5(1) 2025:140-154
http://i-jeh.com/index.php/ijeh/index
E-ISSN: 2798-5768

Relationship-Based Music Intervention for a Child with Developmental Disorder and Visual Impairment

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Abstract

This clinical portrait investigates the implementation of a relationship-based musical intervention (RBMI) for a 9-year-old girl diagnosed with Neurodevelopmental Disorder and Visual Impairment in a school setting. Despite the growing body of research highlighting the effectiveness of music therapy across various populations, its application in the context of special education remains limited. Existing studies indicate that music interventions can positively impact individuals with developmental disorders, fostering improvements in communication, social interaction, and emotional well-being (Cibrian et al., 2020; Imankhah et al., 2018; Jacob & Pillay, 2021; Thompson & McFerran, 2015). However, further clinical exploration is essential to substantiate these claims with robust evidence. The RBMI approach in this study leveraged a therapeutic alliance to enhance the participant's engagement with music and support her social, communicational, and visual development. A qualitative methodology utilized diverse data collection techniques, including field notes, reflective journals, and artistic responses. These tools facilitated an in-depth understanding of the participant's progress and the nuanced dynamics of the therapeutic relationship. Findings from the study revealed that the therapeutic relationship catalyzed the participant's positive engagement with the music-based intervention. The natural progression of this alliance fostered meaningful interactions, which contributed to notable advancements in her social and communicative abilities. Based on these results, the study recommends the integration of RBMI within particular education frameworks to enhance developmental outcomes for children with disabilities. Future research should aim to expand on these findings by incorporating larger participant samples and longitudinal assessments.

Keywords: *Clinical Portrait, Music Intervention, Music Therapy, Therapeutic Relationship.*

A. Introduction

Children with special needs represent a critical demographic within music therapy, requiring tailored interventions that address their unique developmental challenges (Thompson & McFerran, 2015). Among these, children with Neurodevelopmental Disorders (NDDs) and Visual Impairment (VI) often face compounded difficulties in communication, motor skills, and emotional regulation, which profoundly impact their daily lives. Music interventions have emerged as a promising therapeutic approach for these children, offering engagement, self-expression, and connection opportunities. However, despite its potential, the application of music therapy in addressing the combined challenges of NDD and VI remains underexplored. This gap underscores the need to investigate strategies that employ music as a tool and emphasize the relational aspects of therapy, fostering trust and emotional safety.

Existing literature highlights the efficacy of music therapy in enhancing communication, social skills, and emotional well-being among children with developmental challenges.

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Geretsegger et al. (2014) describe how singing, instrument play, and rhythm exercises can facilitate self-expression and improve interpersonal interactions. Studies by Ryan et al. (2019) and Jacob and Pillay (2021) further confirm the benefits of music therapy, particularly for children with limited verbal communication. However, these studies often focus on generalized interventions and lack emphasis on the relational dynamics between therapists and children. This study builds upon this foundation, introducing Relationship-Based Musical Intervention (RBMI) as a strategy that integrates therapeutic alliances with music therapy practices better to address the needs of children with NDD and VI.

The primary objective of this study is to explore the implementation and effectiveness of RBMI in enhancing the social, communicative, and emotional development of a 9-year-old girl with NDD and VI. By documenting the impact of this approach over a five-week intervention, this research aims to identify how relational dynamics can amplify the benefits of musical engagement. Additionally, this study seeks to contribute to the broader discourse on special education by providing a framework for incorporating relational strategies into music therapy practices for non-verbal and visually impaired children.

The urgency of this study lies in its potential to address the scarcity of evidence-based practices for this specific population. While the benefits of music therapy are well-documented, few studies investigate its application within the context of multiple disabilities, such as NDD and VI. This study bridges that gap and provides actionable insights for practitioners, educators, and caregivers working with children facing similar challenges. By emphasizing the relational aspects of music therapy, this research advocates for a holistic approach that prioritizes emotional safety and trust, ensuring sustainable developmental outcomes.

B. Literature Review

1. Music Therapy in Special Education

With the wide application of music therapy in special education, a large body of research provides a macro-level understanding of its current use in this context. In educational settings, music therapists are frequently labeled as teachers. However, it is essential to recognize that their roles differ significantly from those of conventional music educators. Smith (2018) examined the correlation between music education and music therapy within public schools, discovering that while both professions employ similar strategies to address students' unique learning requirements, their objectives differ substantially. Furthermore, Smith identified a lack of communication between these two groups, highlighting the need for further research to enhance collaboration between exceptional education specialists and music teachers to provide comprehensive support.

Swanson (2020) explored the utilization of music therapy in school settings by examining three individual cases, noting its effectiveness in helping students achieve educational goals while enhancing their overall well-being. Swanson emphasized that group-based music therapy sessions can facilitate classroom integration, boost self-esteem, and foster a sense of accomplishment among students. Additionally, music therapy has shown potential for mitigating problematic behaviors and aggression. This study underlines the importance of incorporating music therapy into school environments, although further research is necessary to substantiate its outcomes in particular education contexts.

Rickson and McFerran (2007) traced the history of research on music therapy in special education and provided a framework for future studies. They emphasized the need for more research to confirm the practical outcomes of music therapy in this setting and offered foundational knowledge about its structure and assessment. According to Rickson and McFerran, "A procedure of referral, assessment, treatment, documentation, and evaluation

shapes the clinical intervention in line with the Individualised Education Program (IEP) structure".

2. Music and Visual Impairment

Swift et al. (2008) discussed the definition and etiology of Cortical Visual Impairment (CVI), noting that CVI is a brain-based disability rather than a condition limited to the eyes. They highlighted the importance of understanding CVI symptoms to provide appropriate therapeutic services. Park and Chong (2019) explored emotional responses to music in adults with visual impairment (VI) compared to those with normal vision (NV). Their findings revealed no significant differences in emotional responses to music between these groups, indicating that sensory disabilities do not diminish musical experiences. They further noted the phenomenon of sensory compensation and the potential structural changes in the brains of visually impaired individuals during music listening. Park and Chong stated, "Some brain imaging studies have provided evidence that the brain structures activated by visual stimulation are similarly activated when listening to music. Visually impaired people can also use music as a tool for social communication and a source of personal enjoyment".

Metell and Stige (2016) comprehensively reviewed twelve studies on music therapy and visual impairment. They identified Peggy Codding as a prominent researcher in this field (as cited in Kern, 2006), highlighting music therapy's developmental impact, especially in sensory stimulation, motor development, orientation, and normalization. Codding emphasized the role of music therapists in creating spaces for mutual participation and supporting families through tailored songs and activities (Kern, 2006).

3. Music Therapy and Developmental Disabilities

Thompson and McFerran (2015) investigated the impact of music therapy on the communicative behaviors of young people with profound intellectual disabilities. Through four case studies, they concluded that music therapy creates engaging and motivating conditions for social interactions. Similarly, Wetherick (2014) demonstrated through case studies that music therapy enhances social and communication skills in children with language disorders, showing improvements in spatial speech and cooperative play.

Sara (2019) examined the effectiveness of music therapy in improving social and communicative abilities in children with various disabilities. The study described music therapy as an interdisciplinary field integrating practical and theoretical knowledge for clinical purposes. Moseeler (2019) explored the role of the music-therapeutic relationship as a predictor of social and communication skill development in autistic children. Using the Assessment of the Quality of Relationship (AQR) and the Autism Diagnostic Observation Schedule (ADOS), Moseeler concluded that meaningful development occurs when therapists align musically and emotionally with the child. According to Moseeler, "The music therapeutic relationship [is] an important predictor of the development of social skills, as well as communication and language specifically" (p. 2795). Jacob and Pillay (2021) also explored music-based interventions to improve reading skills in children with intellectual disabilities. Their findings demonstrated significant increases in reading performance among participants in music therapy groups, providing experimental support for promoting music therapy as an effective treatment method for improving literacy skills in this population.

C. Methods

1. Research Design

This study utilized a single-subject research design to investigate the effectiveness of a Relationship-Based Music Intervention (RBMI) in addressing the needs of a child with

developmental disabilities and visual impairment. Single-subject designs are precious in clinical and educational settings, as they allow for detailed, individualized insights into the impact of an intervention on a single participant, making them highly suitable for exploratory studies (Kazdin, 2011). The research spanned five sessions, enabling in-depth observation and analysis of the participant's responses to music therapy activities. Each session was carefully planned to align with the participant's Individualized Education Program (IEP) goals, ensuring the intervention was relevant and targeted their developmental needs (Baxter & Berghofer, 2007).

The RBMI approach integrated structured musical elements, improvisational techniques, and therapeutic interactions to create a supportive and engaging environment for the participant. Structured activities provide a predictable framework, which research suggests can enhance attention and emotional security in children with developmental disabilities (Geretsegger et al., 2014). Conversely, improvisational techniques offered flexibility and adaptability, enabling the therapist to respond dynamically to the participant's cues and behaviors. This method has been shown to support creativity and social interaction (Knapik-Szweda, 2015). These components were combined with therapeutic interactions to build rapport and foster meaningful engagement, aligning with evidence emphasizing relational dynamics' importance in therapy (Moseeler, 2019). The intervention aimed to assess its effects on the participant's social, communicative, and musical development, offering a holistic perspective on their progress.

2. Research Procedure

The intervention took place at the Lower School of a specialized institution for students with visual impairments, providing a structured environment tailored to the unique needs of its participants. This institution serves children with various developmental and visual challenges, creating an ideal setting for a focused music therapy intervention. The sessions were meticulously planned to address specific developmental goals, employing various music-based activities to foster engagement, enhance communication, and support overall developmental outcomes. The intervention utilized techniques such as greeting and farewell songs, vocal and instrumental improvisation, Cortical Visual Impairment (CVI)-specific exercises, and structured instrumental play, ensuring a holistic and adaptable approach to therapy.

Each session followed a consistent structure to provide predictability and comfort for the participant. Sessions opened with a "Hello" song to establish a positive connection and prepare the participant for engagement. This was followed by activities tailored to the participant's strengths, such as sensory-based interactions and improvisational opportunities, encouraging spontaneous responses and active participation. The session concluded with a "Goodbye" song, facilitating a smooth transition and reinforcing the structured nature of the intervention. By customizing activities to align with the participant's preferences and developmental needs, the intervention emphasized meaningful interaction and sensory engagement, creating a safe and supportive environment that maximized the therapeutic benefits of music.

3. Data Collection Techniques

Data collection for this study relied on qualitative techniques designed to capture the participant's nuanced responses and the intervention's overall effects. First, field notes were meticulously recorded during each session to document the participant's behaviors, reactions, progress, and any notable changes observed in real-time. These notes served as a foundational reference for understanding the immediate impact of the intervention. Second, reflective journals allowed the researcher to document personal observations, including shifts in perceptions, strategies employed, and the evolving dynamics between therapist and participant. This reflective process provided additional insight into the intervention's progress and alignment with the participant's developmental needs. Finally, artistic responses, such as drawings or musical compositions, were used as complementary data. These non-verbal forms of documentation

offered creative opportunities for the researcher to interpret and express the participant's engagement and emotional responses during or after each session.

In addition to qualitative techniques, specific assessment tools were adapted to ensure a structured evaluation of the participant's progress. The Individualized Music Therapy Assessment Profile (IMTAP) (Baxter & Berghofer, 2007) assessed the participant's strengths and areas for development in music therapy. Similarly, the Music Therapy Assessment (Boxill & Chase, 2007) aligned intervention goals with the participant's Individualized Education Program (IEP). These tools were instrumental in tailoring the assessment to the participant's unique needs and tracking measurable progress throughout the intervention, thus ensuring a comprehensive evaluation framework.

4. Data Analysis Techniques

Qualitative content analysis examined the rich data collected from field notes, reflective journals, and artistic responses. These qualitative methods allow for an in-depth exploration of subjective experiences, capturing the nuanced changes and themes that emerge during the intervention (Vaismoradi et al., 2013). The data were systematically coded and organized into categories to identify recurring patterns, central themes, and notable behavioral changes in the participants throughout the sessions. Key focus areas included the participant's engagement level, social interactions, and communicative behaviors. Particular emphasis was placed on the therapist-client relationship, which is a critical factor in achieving therapeutic goals, particularly in music therapy for children with developmental disabilities (Moseeler, 2019). This dynamic was carefully evaluated to understand its contribution to the participant's progress toward the objectives outlined in her Individualized Education Program (IEP).

Quantitative measures were incorporated to complement the qualitative insights to provide objective data on the participant's development. Specific metrics, such as the frequency and duration of targeted behaviors (e.g., activating a switch, maintaining sustained attention, and interacting with musical instruments), were systematically recorded during each session. Quantitative methods, including descriptive statistical analyses, were applied to these metrics to offer a measurable perspective on progress (Creswell & Creswell, 2017). By integrating qualitative and quantitative approaches, the study achieved a holistic evaluation of the intervention's impact, blending subjective experiences with objective evidence to better understand the participant's response to the Relationship-Based Music Intervention (RBMI).

5. Ethical Considerations

Ethical principles were a cornerstone of this research, ensuring the participant's rights, privacy, and well-being were always protected. Before initiating the intervention, informed consent was obtained from the participant's parents, who were fully briefed on the study's purpose, procedures, and potential outcomes. A pseudonym was assigned to safeguard the participant's identity, and all personal information was thoroughly anonymized. The data collected were treated with the utmost confidentiality and securely stored to prevent unauthorized access. Furthermore, the intervention sessions were conducted under the close supervision of a certified music therapist, ensuring professional oversight and adherence to therapeutic standards.

Integrating ethical rigor with a structured methodological approach facilitated a comprehensive evaluation of the Relationship-Based Music Intervention (RBMI). The study achieved a nuanced understanding of the intervention's effects by employing qualitative and quantitative data collection techniques. Qualitative insights captured through field notes, reflective journals, and artistic responses were systematically analyzed alongside quantitative metrics, such as the frequency and duration of targeted behaviors. This balanced approach documented the participant's developmental progress and highlighted the relational dynamics

central to the RBMI framework, reinforcing its potential as a therapeutic strategy for children with developmental disabilities.

D. Findings and Discussion

1. Session One

Inn was brought into music therapy by a teacher assistant. After a brief check-in with the teacher assistant, I learned that Inn had just suffered from a seizure and she was in an uncomfortable state. Inn spent about 2 minutes trying to concentrate her vision on a tambourine as observed, which took longer than usual. While I was playing the Hello song on the guitar, Inn's head turned to the direction of the music, and she kept clapping and saying, "Ah, ah, ah." When the "hello" switch was presented to Inn, Inn activated the switch under the verbal and physical cues I gave. Instead of using the switch functionally, her activation seemed to push the switch away. At the end of the Hello song, I melodiously stated, "Now get ready to stop." She stopped for 10 seconds and then returned to self-entertainment again. Interestingly, Inn's clapping and vocalizing were not chaotic but rhythmic. I tried to establish a rhythmic connection to let her know I was with her. Next, I improvised a harmonic progression G-G-D-G in G major and reflected Inn's beat. I heard Inn pitched in critical several times, which surprised me. After that, these sounds gradually formed musical phrases similar to scales (Figure 1). Based on the unexpected performance of Inn, I came up with the idea of making some changes to the treatment plan. The original singing improvisation had no structure, and the melody and rhythm may be changed with the Inn's response. I wanted to splice Inn's music fragments into a structured song and use it in future sessions to see how Inn would react to it. The vocal improvisation also ended with the instruction, "Now get ready to stop," but Inn did not stop this time. I provided a "finish" switch to model the end of an activity. Like activating the "hello" switch, Inn's behavior seemed to push it away.

The second half of the session was instrumental playing. I improvised songs as a framework for activities, composed of a simple melody, specific lyrics, and Inn's language (I call Inn's vocalization "Inn's language"). Inn needed more physical support when playing instruments, so I held the instruments and gently touched her arms with them. Once Inn felt the instruments, she touched them briefly and pushed them away. Every time she pushed away, I used "my turn" to label her actions. Similarly, when the instrument was presented again, "Inn's turn" was used to label it. The session ended with a Goodbye song. Inn seemed to have higher energy when she left than the session's beginning.

Before this session, I was not sure if Inn's behavior of pushing was expressing resistance, but I can be sure that I felt depressed and tired. I repeated the same thing in every session, and the response from Inn was always rare. I found that even if I had reviewed her files many times and understood all the diagnoses, I could not understand the thoughts and behaviors of a child with mental retardation who was also non-verbal. Maybe when Inn was listening to music, her brain was running too much information, but people could not see it. People who work with Inn can only try to understand the expression of Inn by making assumptions because Inn can never tell people how she thinks. The artistic response (Figure 2) was completed when I went home to review the data for that day, showing the image of Inn in my mind. She needed someone who had more patience to interact with her.

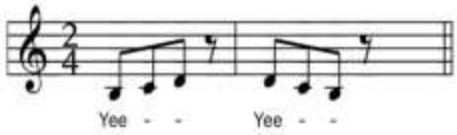

Figure 1. Inn's pitched phrase from session #1

Figure 2. Artistic response to session #1

2. Session Two

Before the session, I was told that Inn was in a good mood. It took Inn about 30 seconds to focus on the tambourine, shorter than last week. Before I saw her eyeball move, Inn reached out her right hand and touched the tambourine, making a little noise. I guessed that the object's sound helped her locate it in a shorter time. In the vocal improvisation, the interaction between Inn and my voice sounded like a dialogue with similar musical phrases. Like the last session, I recorded her music fragment (Figure 3). I tried to speed up the rhythm, and she followed me, reflecting in her rapid clapping and rubbing hands. She followed me four times in five dynamic changes, which seemed to be more active participation. Tambourines and shakers were presented to Inn simultaneously to assess whether Inn could make choices. Inn reached out with their right hand and touched the tambourine. I paralleled it: "You reach out to the tambourine, which means you want that." Inn showed increased familiarity with the structure of the activity by playing more organizationally, as observed.

I was eager to learn more about Inn and connect with her. This artistic response (Figure 4) implied that Inn was a colorful and optimistic music child. I realized that her changes were subtle, and I needed to be sensitive enough to her response to capture more musical clues. Once her musical cues were developed and extended, she would likely resonate with them. The song I wrote for Inn had a repetitive chorus and a verse. The verse is the framework of the song, in which simple melody and lyrics create a specific and concrete context.

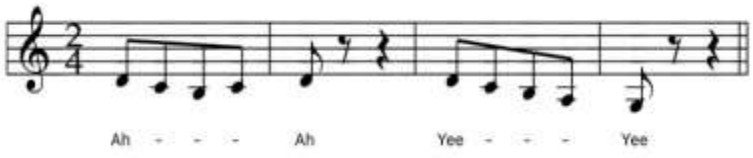

Figure 3. Inn's music fragment from session #2

Figure 4. Artistic Response of session #2

3. Session Three

Inn was brought into music therapy by a teacher assistant. Inn's eyes were repeatedly directed toward the tambourine within a five-minute CVI exercise. This time, I did something different with switch work: I put my hand under her hand to activate the switch. Instead of pushing the switch away, she showed a gentle hand to support the co-active movement. I assumed that teaming up together might be a way to improve Inn's tolerance to objects. I played Inn's music (Figure 5), which I wrote in advance on the guitar. When I sang the chorus, Inn was excited, as demonstrated by clapping, laughing, and vocalizing. I found that the faster I played, the more active Inn became. Exciting rhythm changes made her more focused, and she responded more to the direction of "Now get ready to stop." In addition, Inn also benefited from using the co-active method to play the shaker. I put my hand under her and rubbed the beads on the shaker. With my support, she could play for about five seconds longer than before. However, according to the observation, Inn did not comprehend turn-taking. Whether it was her turn or mine, she kept vocalizing and reaching. In general, this was the best session we had. Inn was still giggling when she left the classroom.

It was the first time I saw such a sweet smile from Inn, and the first time I felt the most vital connection with her. I clearly remembered that my energy level increased with her activity during the session. As shown in Figure 6, I felt that Inn and I were using music to communicate and listen back and forth. As a therapist, the surprises clients give us can change our day. Of course, through this caseload, I have gained more and more confidence, and I would like to work with groups of children and adolescents in the future.

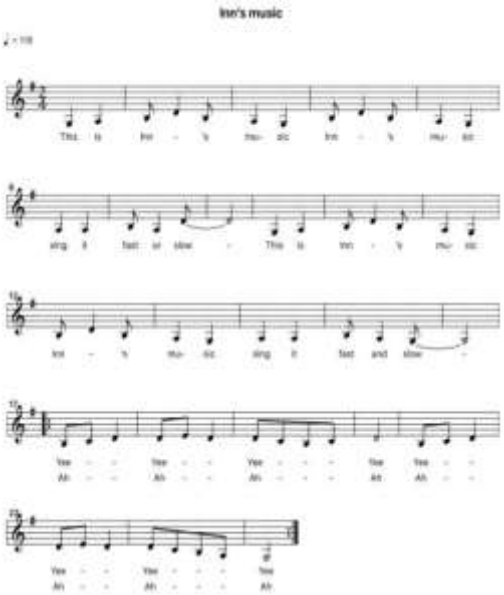

Figure 5. Inn's pitched phrase from session #3

Figure 6. Artistic Response of session #3

4. Session Four

As a preparation, I discussed the success of activating the switch by using the movement of light to help Inn focus with a team member. It took us one minute to do the CVI exercise, and Inn saw the tambourine in only 30 seconds with the help of highlighting. In the past, under the verbal and tapping prompts, Inn needed more waiting time to activate the switch. This time, with a flashlight on the switch, Inn completed the task quickly. When Inn's music was presented again, Inn's facial expression told me, "I am looking forward to this interesting song." She was still active and responsive to the accelerating beat. In addition, she had a new musical phrase (Figure 7) composed of a descending scale.

Based on my excellent relationship with Inn last week, I kept the co-active method in the instrument-playing structure. Surprisingly, Inn hit the tambourine six times alone, although I could not confirm whether it was functional or purposeful. Next, I used specific instructions to model turn-taking. When it was my turn, I patted Inn's hand and told her: "This is my turn, listen, listen." I did not start playing until she stopped reaching out and clapping. I repeated this process about six times. Near the end of the session, Inn looked quieter.

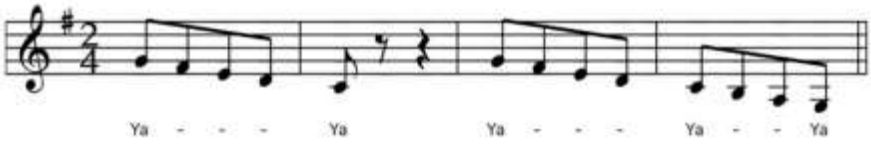

Figure 7. Inn's pitched phrase from session #4

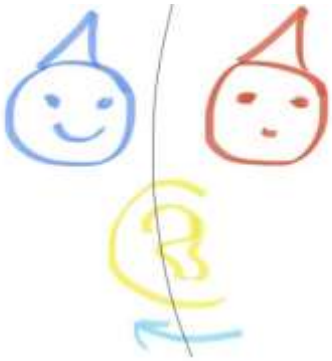

Figure 8. Artistic Response of session #4

5. Session Five

In order to enhance the relationship with Inn, I went to her cottage and transferred her to the music therapy classroom. As usual, we spent a few minutes on the CVI exercise. Time spent with Inn varied from session to session and was directly related to her state of comfort and alertness on a given day. I changed the musical phrase composed of the descending scale that Inn appeared in the last session into the chorus of Inn's music (Figure 9). Inn enjoyed clapping with the rhythm and tried several times to speed up so I could follow her. I found that her movements and changes in music were somehow related. Under observation, she used clapping to match slow music and rubbing her hands to match fast music.

Inn's most significant progress showed in playing instruments. During my turn to play the tambourine, she was able to keep quiet most of the time. When she activated a switch paired with "my turn," she returned to playing and reaching. Her efforts were always honored, but she still needed to give repeated verbal cues. After playing the instrument, Inn put the tambourine in the finish bin under my physical assistance to indicate that an activity was finished. Compared with Inn's first session, I realized that both Inn and I were progressing. To some extent, Inn has taught me a lot. Initially, I was disappointed by Inn's resistance, and such negative emotion unconsciously affected my state. I strongly hoped that Inn could give me responses, and then I could impose my expectations on her. Clients are always themselves. The goal of music therapy is never to change clients into other people but to always be with them, helping them explore their infinite potential. The last artistic response (Figure 10) shows what I want to say to my future self: "Try always to follow your clients."

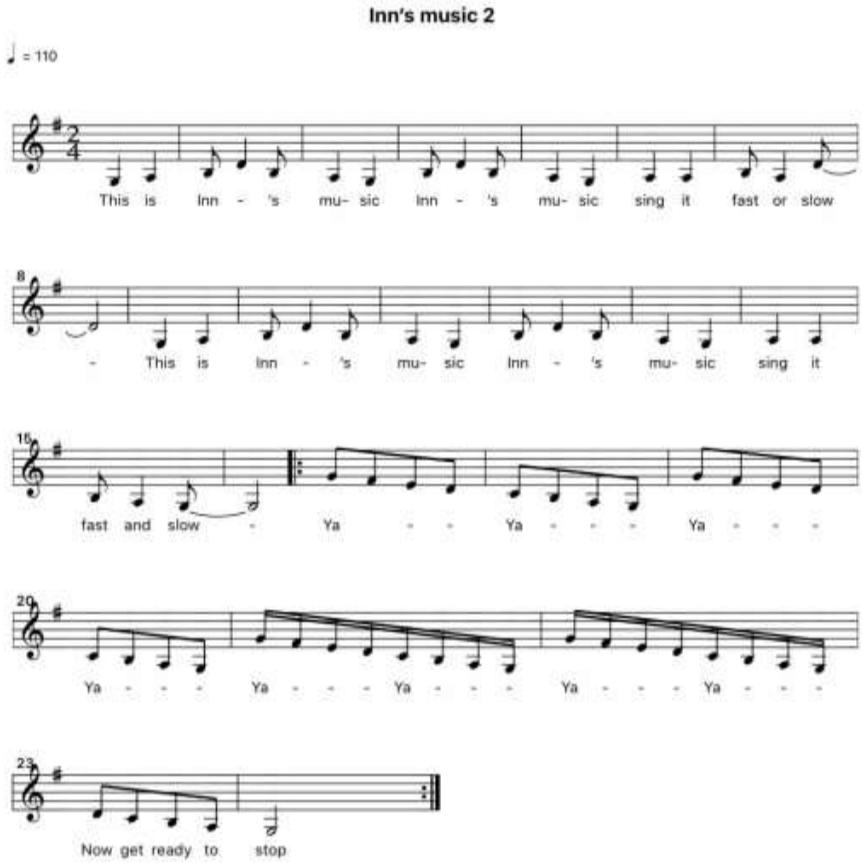

Figure 9. Inn's pitched phrase from session #5

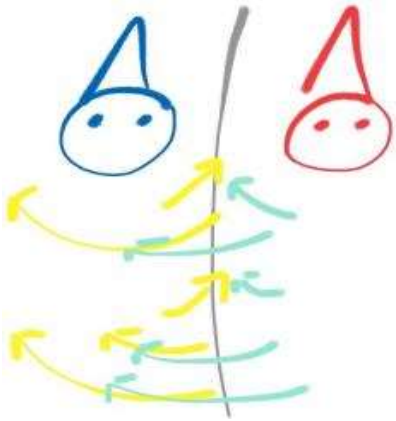

Figure 10. Artistic Response of session #5

This month, Inn has demonstrated steady progress toward her communication and music therapy goals. When provided with an instrument or a switch, she appeared more adept at locating and interacting with objects when visual aids, such as lights, were used to highlight them. This aligns with findings by Swift et al. (2008), who emphasized the role of visual accommodations in supporting children with Cortical Visual Impairment (CVI). Upon locating the switch, Inn gently activated it before pushing it away, indicating increased tolerance and interaction with objects. These are critical developmental milestones for children with CVI and Neurodevelopmental Disorders (Park & Chong, 2019). Although Inn's comprehension of switch content remains unclear, her ability to accept and engage with items has visibly improved, showcasing her growing comfort in structured music activities.

In these sessions, Inn effectively used a switch paired with a "more" tangible symbol to request the continuation of an activity, often benefiting from extended wait times, repeated verbal cues, and tactile prompts. Additionally, she activated a switch labeled "It is my turn" to request a turn on an instrument. These behaviors highlight her progress in communication and turn-taking, which are pivotal for social development in children with intellectual impairments (Jacob & Pillay, 2021). While cue levels varied across sessions, there was a noticeable decrease in the level of prompting required toward the end of the month, indicating incremental independence in her responses.

Evaluating improvements in Inn's social and interactive abilities remains challenging, as observations were limited to the music therapy setting. Data from other contexts, such as her classroom or home interactions, could provide a more comprehensive picture of her progress. However, resource constraints, such as the lack of advanced neuroimaging tools in the school setting, limited the ability to conduct neural tests that could further substantiate findings (Swift et al., 2008). Observational data, as summarized in Table 1, show that Inn exhibited more excellent responsiveness and engagement compared to her pre-intervention behavior.

Notably, the initial two months of working with Inn before implementing the intervention were instrumental in building a solid therapeutic relationship, which is essential for facilitating progress in music therapy (Moseeler, 2019). After introducing the Relationship-Based Music Intervention (RBMI), there was a marked reduction in her self-entertainment behaviors and an increased willingness to focus on music experiences and interactions. This supports previous research emphasizing the significance of therapeutic alliances and music-based interventions in promoting active participation and reducing self-stimulatory behaviors in children with developmental disabilities (Thompson & McFerran, 2015).

Table 1. Inn's Observed Responses to Intervention

Date/Reaction	Pause when I say "now get ready to stop"	Pause when hearing music cadence	Repeat Musical Fragment	Pitching in key	Follow the dynamic change
1/30	3/5	1/3	1	5	3/5
2/6	3/6	2/4	1	6	4/5
2/13	5/6	2/4	2	4	4/5
2/20	5/6	2/3	0	7	5/5
2/27	6/6	2/3	1	6	4/5

Inn's benefits from the RBMI approach are primarily observed in two domains influenced by cognitive function: language and behavior. Regarding language, the resonance achieved through vocal exploration expanded her vocal range and diversified her vocal expressions. This intervention disrupted her stereotypical repetitive vocalizations, evolving her voice pattern from initial utterances like "Ah, Ah, Yee, Yee" to include the melodic addition of "Ya, Ya." This

outcome aligns with previous studies indicating that music therapy enhances vocalization in children with developmental disabilities by promoting imitation and expanding sound repertoires through structured and spontaneous vocal interactions (Thompson & McFerran, 2015).

In terms of behavior, incorporating co-active movement and physical touch significantly increased Inn's functional use of objects. Engaging her in purposeful interactions with instruments and tangible symbols demonstrated how music therapy can encourage adaptive behaviors and sensory integration, as noted by Geretsegger et al. (2014). Working directly with Inn also reinforced the importance of therapeutic relationships as a cornerstone for successful intervention outcomes. For non-verbal children with visual impairments, communication barriers often hinder effective interaction. Music therapy has been shown to bridge this gap by fostering trust and connection through shared musical experiences, which can amplify the therapeutic effects (Moseeler, 2019). Establishing this trust facilitates deeper engagement, creating a foundation for meaningful cognitive and social progress.

Self-reflection was crucial in understanding how my emotions and attitudes as a therapist could influence the therapeutic process. Managing resistance from clients requires heightened sensitivity and a non-judgmental stance, aligning with Ortlipp's (2008) assertion that reflective practice is integral for maintaining professional objectivity and adapting strategies. Positive client feedback further reinforced my enthusiasm, reflected in the music I created for them. This reciprocity between therapist and client strengthened the therapeutic relationship and highlighted the transformative potential of music therapy in achieving non-musical objectives for children with developmental disabilities.

Despite the limited research exploring the intersection of music therapy and visual impairments, my experiences have sparked a deep interest in advancing this field. Collaboration and knowledge exchange among music therapists working with visually impaired children could contribute to developing more effective interventions. Previous studies, such as those by Swift et al. (2008), emphasize the need for further exploration into how sensory modalities like music can compensate for visual limitations, supporting functional development and creativity. By continuing to explore these connections, the field of music therapy can expand its impact on children with diverse needs.

E. Conclusion

This study demonstrated the potential of Relationship-Based Musical Intervention (RBMI) as a practical therapeutic approach for children with Neurodevelopmental Disorders and Visual Impairment in a unique educational setting. By focusing on the therapeutic alliance, RBMI enhanced the participant's engagement in music therapy sessions, leading to notable improvements in her social, communicative, and visual development. The intervention emphasized the importance of building meaningful interactions, which fostered active participation and reduced self-entertainment behaviors. These findings align with existing research that highlights the effectiveness of music therapy in promoting emotional well-being and social interaction for individuals with developmental disorders.

Despite the promising outcomes, the study's scope was limited to a single participant and a short intervention period. To strengthen the evidence base, future research should include larger sample sizes and longitudinal designs to evaluate the long-term impact of RBMI. Additionally, exploring its application across diverse educational settings and disability types could provide a more comprehensive understanding of its effectiveness. Integrating RBMI into particular education frameworks can be a powerful tool for educators and therapists to address the complex

developmental needs of children with disabilities, ultimately enhancing their quality of life and fostering greater inclusion.

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