Benefits of music therapy for children diagnosed with autism spectrum disorder

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Abstract

This paper explores the benefits of music therapy for children diagnosed with autism spectrum disorder (ASD). Given the communication barriers children with ASD may experience, traditional therapeutic approaches that rely on verbal communication may be insufficient. This has led researchers to explore the potential impacts of music therapy. This paper reviews five studies including original research papers and review articles. These articles showed positive impacts of music therapy on social skills, communication, and behavior for children with ASD. These findings emphasize the value of music therapy and its ability to impact the lives of children with ASD.

Introduction

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder characterized by a range of challenges related to social interaction, communication, and repetitive behaviors. ASD is a disorder caused by genes and the environment (Joon et al. 1). Research suggests that certain genetic factors may increase the likelihood of developing ASD, as it tends to run in families. However, not all individuals with a genetic history will develop the disorder, indicating that environmental factors may also play a role (Joon et al. 1). Usually diagnosed in early childhood, ASD affects cognition, impacting social engagement and effective communication (Schopler et al. 5)

Noting that ASD is based on a spectrum, individuals may exhibit a wide range of symptoms, with varying degrees of severity. Symptoms relating to communication may be classified as verbal or nonverbal symptoms (Mehling et al. 1). Verbal symptoms often show challenges in language development, including limited vocabulary, repetitive language, and difficulty sustaining a conversation. Whereas nonverbal symptoms are characterized by challenges in using and interpreting nonverbal communication cues, such as facial expressions and gestures (Febriantini et al. 53-56). Individuals may have difficulty with making eye contact and understanding the subtleties of body language, blocking their ability to navigate social interactions.

Given ASD is often diagnosed in childhood, effective interventions, such as treatments, especially when started early, enhance long term communication skills and adaptive behaviors due to the fact that it is taking place during a period when a child's brain is still developing (Corsello 82). One intervention that is used to complement traditional interventions is music therapy. Music therapy is a therapeutic approach which involves using music to address the social, motivational, emotional, and cognitive needs of individuals. Therapists do musical activities such

as sessions that involve singing, playing instruments, and composing to achieve specific goals; resulting in improved communication, enhanced social interaction, and managed sensory sensitivities (Jinah et al. 1).

The purpose of this paper is to determine the ways that music therapy is beneficial for children with autism particularly relating to social skills. We hypothesized that children with ASD receiving music therapy will show increases in social interactions and increases in engagement with others in social settings.

Music Therapy

Music therapy is a type of healthcare that uses music to help people with the physical, emotional, cognitive, and social needs of individuals (Branch 1). Certified music therapists employ a variety of musical interventions, such as playing instruments, singing, listening to music, and composing, tailored to meet the specific therapeutic goals of their clients. It is used to serve as a powerful medium for communication and expression. Music therapy is applied in a range of settings, including hospitals, schools, rehabilitation centers, and it has been proven effective in addressing a myriad of neurodevelopmental disorders, specifically autism. The therapeutic process is personalized, encouraging active participation and fostering a supportive environment for individuals to explore and process their emotions, enhance cognitive function, and build social connections (Branch 1). Through its multifaceted approach, music therapy strives to enhance the overall well-being and quality of life for those it serves.

Autism Spectrum Disorder

Autism Spectrum Disorder (ASD) is a neurological condition that affects how people communicate and interact with others. It is characterized by differences in social behavior, communication challenges, and repetitive behaviors (Joon et al. 1). Individuals with autism may have unique strengths and interests, and it is based on a spectrum, and can vary widely from person to person. There are various types of ASD. Each type has its own set of characteristics and challenges. Additionally, individuals with autism may experience sensory sensitivities, making certain sounds, lights, or textures overwhelming. ASD is a lifelong condition but early intervention can greatly improve an individual's quality of life (Lord et al. 1).

Methods

In this study, we used an orderly approach to gather information. We used keywords such as ‘‘autism”, “music therapy", and “children' " with the filter 2015-2024 in Google Scholar to find five scholarly articles to review. We organized original research and reviewed articles about how music therapy benefits children with ASD onto a spreadsheet. The articles are sorted into sections for introduction, results, and evidence, along with their titles and publishing dates. This review involves children who have non-verbal and verbal ASD and focuses on social interaction and verbal and non-verbal communication outcomes. This article reviews five original studies and systematic reviews.

Results

Havlat's study specifically observed increased eye contact during the music therapy sessions and during post-test sessions. They conducted a study showing the difference between music therapy and their traditional approach (Havlat 4). For three days they maintained traditional interventions, followed by three days of music therapy treatment, followed by a day of traditional intervention (Havlat 32). They collected data on communication skills throughout the study with a pretest posttest design. Havlat found communication attempts were greatest during the music therapy treatment days compared to the standard intervention days. The findings of Havlat support our thesis because it shows that music therapy is beneficial in increasing communication attempts (Havlat 39).

Geretsegger et al. explored the impact of short- to medium-term music therapy interventions (lasting from one week to seven months) on children with ASD (Geretsegger et al. 2). The results revealed positive outcomes, indicating that music therapy outperformed 'placebo' therapy or standard care in several crucial aspects. Within the therapy context, it notably improved social interaction and non-verbal communicative skills. Beyond the therapy setting, positive effects extended to enhanced social interaction, verbal communicative skills, and initiating behavior. While there was no significant difference in non-verbal communicative skills outside the therapy context, music therapy demonstrated superiority in secondary outcomes like social adaptation, joy, and the quality of parent-child relationships. Importantly, no adverse effects were reported. (Geretsegger et al. 4). However, it's essential to note the study's limitations due to the relatively small sample sizes, impacting the overall strength of these findings (Geretsegger et al. 6).

Shi et al. investigated the effects of music therapy on mood, language, behavior, and social skills in children with autism (Shi et al. 1). The researchers conducted a literature search in Chinese databases and included randomized controlled trials (RCTs) in their analysis. With a total sample size of 300 patients, the meta-analysis revealed that music therapy significantly

improved mood, social skills, and behavior compared to control groups. Overall, the study suggests that music therapy can be an effective intervention for enhancing various aspects of functioning in children with autism (Shi et al. 1).

Xiaohua et al. aimed to evaluate the efficacy of music therapy in children with autism spectrum disorder through a systematic review and meta-analysis (Xiaohua et al. 1). After a thorough search of databases, eight randomized controlled trials (RCTs) involving 608 participants met the inclusion criteria. The included studies employed various music styles and intervention durations, ranging from three days to eight months (Xiaohua et al. 1). Results revealed that music therapy holds potential as a beneficial intervention for children with ASD, particularly in enhancing social interactions. Music therapy emerged as a promising option for improving the social skills of children with ASD, although further research is needed to establish its long-term effectiveness (Xiaohua et al. 8).

Ghasemtabar et al. investigated the impact of Music Therapy on social skills in children with ASD and found significant improvement in various aspects, such as imitation, turn taking, social reciprocity, joint attention, shared affect, and empathy (Ghasemtabar et al. 6) . In their clinical trial study, Ghasemtabar et al. first measured social skills in the control and in the experimental group and then provided the Orff-Schulwerk music therapy method, a hands-on approach to music education emphasizing creativity and expression through active participation, improvisation, and group activities, to the experimental group for 45 days over 12 sessions. The authors then remeasured social skills to compare differences between the two groups. Ghasemtabar et al. found that children who received music therapy showed improvements in social skills compared to the control group (Ghasemtabar et al. 1). The positive effects of Music Therapy on social skills persists for up to two months post-intervention (Ghasemtabar et al. 3).

The body of research reviewed supports the positive impact of music therapy on children with ASD, as it was found to have improvements on social skills, communication, and behavior.

Discussion

The purpose of this paper is to determine the ways that music therapy is beneficial for children with ASD. We hypothesized that children with ASD receiving music therapy will show increases in social interactions and increases in engagement with others in social settings. The papers we reviewed showed that music therapy stands out as a favorable intervention for individuals with ASD. The consistent positive outcomes, such as improved communication, enhanced social interaction, and strengthened emotional expression, highlight the significant impact of music therapy (Jinah et al. 1). Beyond immediate therapeutic benefits, music therapy was also shown to foster lasting improvements in daily life, promoting social adaptation, joy, and improved parent-child relationships (Geretsegger et al. 4).

The findings highlight the importance of music therapy as an intervention for individuals with ASD. Music therapy has not only been shown to enhance social communication but also to contribute to improving mood, behavior, and overall quality of life for autistic individuals. The holistic approach addresses various aspects of functioning and can improve the lives of those with ASD.
Early music therapy for children with ASD is crucial because it taps into the brain's ability to change and adapt during early development (Corsello 81). Taking early action and providing personalized support with treatment and therapies can significantly improve outcomes for individuals with autism. The value of proper treatments for autism is important, as they can significantly improve the individual's quality of life and social integration.

Despite the positive outcomes of music therapy in the studies reviewed, some of the studies included in the review had small sample sizes, could have had more rigorous methodology, or could have made better efforts to reduce bias. This paper also only reviewed five studies and future work could include more sources to further validate findings.

Moving forward, more research is needed to understand how well music therapy works in the long run and how best to use it for helping with ASD. Future studies could investigate the specific mechanisms underlying the therapeutic effects of music and identify ways to best tailor interventions to an individual's needs. Additionally, exploring how music therapy can be incorporated into existing treatment approaches for ASD could enhance its accessibility and impact on a larger scale.

In conclusion, the evidence presented supports the hypothesis that music therapy is beneficial in improving social communication among children with ASD. While acknowledging the need to address the limitations discussed in future research, the findings highlight the valuable role of music therapy in promoting social inclusion and well-being and enhancing the lives of individuals with ASD.

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