Research Article Summary Assignment
EPSE 549
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Rationale for choosing the topic

Music has always been an inseparable part of my life. I have played the piano and sung from a very young age, and throughout the years, music was always a passion and inspiration for anything I did. When working with individuals diagnosed with Autism Spectrum Disorder (ASD) I have always integrated music in my practice. As I progressed in my studies and became familiar with the field of ABA, I have also learned that I can combine music with evidence-based strategies such as reinforcement systems, and in doing so, I experienced success in my treatment goals.

One of the many important skills that children with ASD need to develop is social skills. The amount of social interaction opportunities that are provided when using music as a tool to develop these skills is immense. To target social and communication skills in my current daily practice, I use music as a safe stimulus for social engagement, as there are many ways it can be integrated in sessions. We listen to music together, learn how to communicate with or without words, mand, tact, use intraverbal and echoic skills, imitate and much more. The wonderful thing about music is that almost every learner responds well to it. Music can be used with anyone, anywhere, regardless of one's diagnosis, age, background, or culture, and it can be applied by anyone within their practice, without necessarily having professional music skills.

I chose the topic of music as a therapeutic tool in improving social skills of children with ASD, as I am interested in learning more about its effectiveness as an evidence-based practice, aiming to provide the best intervention for my clients, and combining my love for both music and individuals with ASD.

Research 1 Summary

Bharathi, G., Venugopal, A., & Vellingiri, B. (2019). Music therapy as a therapeutic tool in improving the social skills of autistic children. *The Egyptian Journal of Neurology, Psychiatry and Neurosurgery, 55*(1), 1-6.

The purpose of this study was to find out whether music therapy (MT) can improve the development of social skills of children diagnosed with Autism Spectrum Disorder (ASD). Furthermore, the researchers sought to evaluate the impact of MT on the social skills of children with ASD, and to assess whether its effects persist over time. More specifically, the study questioned the social skills of understanding and perspective taking, initiating interactions, responding to initiations, and maintaining interactions.

The study recruited sixty children (30 boys and 30 girls) from Coimbatore, India, ranging in age from 6 to 12 years, with mild autism (15 boys and 15 girls), moderate autism (12 boys and 12 girls), and severe autism (3 boys and 3 girls), based on DSM-5 criteria. In practice, eight children were excluded from the study and actual participants in the study included fifty-two children (26 boys and 26 girls). Participants were selected based on two criteria: (a) children aged between 6 to 12 years; and (b) children diagnosed with mild, moderate, to severe ASD based on the Childhood Autism Rating Scale (CARS). The exclusion criteria included: (a) hearing, visual, motor, or speech limitations; (b) having any disease, or being under any medication or psychiatric drugs; and (c) not complying with the study protocol.

The study used a quasi-experimental research design with a control group, and it included a pre-test, post-test and follow-up among the participants. To identify the challenges that each participant faced (i.e., limitations in language, verbal communication, social and behaviour

challenges), an interview was conducted with the parents or care giver. In addition, a baseline of the participants' social skills was recorded prior to the intervention, using the TRIAD Special Skills Assessment (TSSA) as the pre-test.

The fifty-two participants were divided into two groups: an active MT intervention group, and a passive MT intervention control group, with 26 children (13 boys and 13 girls) in each group. The active intervention group received MT based on the Orff-Schulwerk method, engaging in singing, dancing, playing on different musical instruments, and listening to music, while the passive group received MT without any reciprocal action or interaction, listening to music alone.

During the intervention, selected high scored songs with different pitch and style were played on a CD for a duration of 6 minutes, and after they were played, the participants were observed in silence for 10 minutes. Sessions were held 3 times a week for 35 minutes for both groups. All participants received the MT intervention for 3 months and a follow-up study for an additional 3 months.

The post social skills test for the two groups was recorded on the fifth day, and after the 3 month follow-up period the steadiness of social skills was assessed with the assistance of the parents. Data were analyzed with IBM-SPSS-21 software, and the two groups were compared by analysis of covariance.

The results of the study demonstrated a significant improvement in the social skills of the active MT intervention group compared to the passive MT intervention group. More specifically, it showed an improvement in the participants' ability to understand, respond, and maintain their

interaction with their peers. Furthermore, the results also showed that the effectiveness of MT continued well into the follow-up phase.

This study, with its positive results showing effective and long-term improvement in the social skills of children with ASD, joins a long line of music-based studies, approaches, and research reports on MT intervention that have shown encouraging results for children with ASD who face challenges in the social context.

Various types of MT intervention methods already exist in practice, including improvisational music therapy and neurological music therapy. However, the authors note that in order to achieve more promising results, further research is needed among different populations, different age groups, different degrees of ASD severity and other areas of ASD.

Research 2 Summary

Ghasemtabar, S., Hosseini, M., Fayyaz, I., Arab, S., Naghashian, H., & Poudineh, Z. (2015). Music therapy: An effective approach in improving social skills of children with autism. *Advanced Biomedical Research, 4*(1), 157.

The purpose of this study was to identify the effect of music therapy (MT) on social skills of children diagnosed with Autism Spectrum Disorder (ASD), to investigate its effectiveness in improving these skills, as well as its long-term stability and consistency over time.

The study recruited 69 children with autism from Tehran, Iran, ranging in age from 7 to 12 years, from which 34 children were diagnosed with mild to moderate autism, according to the Childhood Autism Rating Scale (CARS). In practice, seven children were excluded from the study and actual participants in the study included twenty-seven children (14 boys and 13 girls). Participants were selected based on three criteria: (a) children aged between 7 to 12 years; (b) children diagnosed with mild to moderate ASD based on the CARS; and (c) children with no impairments like blindness, deafness, speaking deficiencies, and motor disabilities. The exclusion criteria included: (a) absence for more than two sessions during the interventions or noncooperation; and (b) participating in any kind of art classes (e.g., music, creative drama, drawing) during the intervention period.

The study used a quasi-experimental research design with a control group, using a pre-test, post-test and follow-up among the participants. The twenty-seven participants were divided by age and gender into two groups: 6 girls and 7 boys in the MT intervention experiment group, and 7 girls and 7 boys in the no-intervention control group. The level of social skills of both groups was measured and recorded based on the Social Skills Rating System Scale (SSRS). The

children of the experiment group received MT intervention in 12 sessions, with two 1-hour sessions a week, for 45 days. During the intervention, MT activities were conducted in a spacious room in a child care centre, where children could freely play and improvise on special musical instruments such as a xylophone, bells, triangle, tambourine, timpani, castanets, maracas, and woodblock. The musical activities were conducted by two music therapists, and were based on the Orff-Schulwerk method using songs, chants, clapping, body movement, dancing, and musical drama. The children in the control group received no intervention at all.

At the end of the MT intervention period, social skills of both groups were measured as the post-test, and also 2 months after the intervention period in the follow−up stage. The social skills were measured by the SSRS with the help of parents to investigate the consistency of the effect of the MT intervention. Data were analyzed with the Statistic Package For Social Science (SPSS) software t−test, and the two groups were compared by analysis of covariance.

The results of the study demonstrated a significant increase in the social skills scores in the experiment group, in comparison to the children of the control group. In addition, the results of the post-test showed that MT effectiveness continued well into the follow-up phase.

This study, with its positive results showing significant and consistent effects on improving social skills of children with ASD, is consistent with similar researches on MT interventions, demonstrating that MT intervention has been able to enhance children's social skills significantly. The conclusion of the study is that music, as a medium that includes a complex range of expressive qualities for dialogue and alternative communication, can bring a sense of security and encourage the child to take risks and be more spontaneous in their interaction with others. These qualities are particularly significant among children with ASD who

face significant challenges related to social and communicative skills, as musical interaction provides a tool for social interaction.

The present study was able to clearly show significant effects of MT on the social skills of children with ASD, suggesting that MT can be considered as an effective method for improving social skills. However, in view of the limitations of the present study (using only one MT method, and a limited sample of children), the authors of the study recommend investigation of the findings of other studies with different demographic characteristics, as well as a further comparison of the method used in this study (i.e., Orff-Schulwerk) to other MT methods and approaches to social skills of children with ASD.

Summary

Similarities and Differences

Both articles examine music therapy (MT) as an effective tool for improving the social skills of children diagnosed with ASD. Both articles aim to investigate the effectiveness of MT in improving these skills, and its sustained stability over time. Participants in both studies were all diagnosed with Autism Spectrum Disorder, with mild, moderate, to severe ASD in article #1, and mild to moderate ASD in article #2. In both articles the participants were children of similar age range (6-12 years in article #1, and 7-12 years in article #2), and both used a relatively small sample size of participants, with a larger sample of 52 participants in article #1, and 27 participants in article #2. Research design in both articles was similar (i.e., quasi-experimental design with a control group, using a pre-test, post-test, and follow-up). While both articles used the Orff-Schulwerk method of MT in their experiment group, mediating communication through songs and body movement, article #1 conducted MT intervention in both the experiment group (active MT) and the control group (passive MT), while article #2 conducted MT intervention only in the experiment group with no intervention at all in the control group. The results in both articles were similar and showed significant positive effects of MT on the social skills of children with ASD.

Application

These studies support the use of music therapy as an effective therapeutic tool for improving social skills of children diagnosed with ASD. As mentioned at the beginning of this paper in the Rationale section, I have always incorporated music into my practice when working with children with ASD, beginning years ago in a more intuitive way at the outset of my

professional path, and later, with my professional progress, in a more purposeful and goal-oriented manner, combining music with evidence-based strategies.

Currently, I incorporate music in most of my programs, and to a large extent as described in the articles. To be specific, there is turn taking on the piano, guitar, or any selected instrument; I sing about different items and model how to functionally play with them; I "sing" a book instead of reading it, with the melody matching the context of the story, we call it "sing a book"; Clients have a song choice board where they can mand for their favourite songs to listen to; I sing WH questions and provide many opportunities for tacting; Clients follow directions through familiar songs, imitate the leader, sing about the days of the week, and engage in songs with body movements for gross motor skills; In addition, I work on auditory processing (i.e., hear-say/ sing), and use many YouTube songs for activities such as sorting and matching.

The application of such activities using music can be done by any teacher or behaviour interventionist in their practice, without the need for any professional music skills. Music interventions can be conducted by singing, clapping, dancing, listening, and in so many other natural, intuitive, and creative ways. Music can also be applied with any client, as every person responds well to it regardless of one's diagnosis, age, background, culture, or place. Thanks to these two articles, I have now become acquainted with the Orff-Schulwerk method, and I will read about it in order to learn more specifically how to apply this program in my practice.

Future Research

Additional future research is needed with different demographic characteristics, different degrees of ASD severity, and with different MT methods and approaches to social skills of children with ASD.