

The Analysis of the Music Therapy Program's Effect on Taking Turn-Sharing Skills and Expressing Feelings of Children with Autism Spectrum Disorder

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Abstract

This study aimed to reveal the influence of a music therapy program on the development of abilities to take turn-share and express feelings of an eight-year-old child with autism spectrum disorder (ASD). This research was designed using mixed research methods, and carried out in a state school which had a source class, in 2016-2017 academic year. The music therapy program was developed by the researcher and applied to the participant in individual format. The participant was involved in 70 individual music therapy sessions held in the previously prepared room and 19 lessons in the subject's classroom observed by the researcher, i.e. lesson observations. Music therapy sessions and lesson observations were quantitatively analyzed with the use of Oldfield's Video Analysis Method. The results of the analysis revealed that the participant's social skills of taking turn-sharing and expressing feelings improved both in music therapy and in lesson observations. The results of the research were discussed alongside the related literature.

Key words: autism spectrum disorder (ASD); mixed method design; music therapy; Oldfield's video analysis method; social skills

Introduction

Autism spectrum disorder entails a group of neurodevelopmental disabilities where intensive inability to communicate, inflexible skill patterns, and limited areas of interest

are observed in social interaction (Lindgren & Doobay, 2011). Having difficulties in social communication according to age and context is seen as a characteristic of ASD (Yilmaz et al., 2014). Areas underlined by Diagnostic and Statistical Manual of Mental Disorders-5 (DSM-5) for ASD diagnosis are: a) chronic disorders in social communication and social interaction; b) limited and repetitive skills, interest and efficacy patterns, insistence on sameness and commitment to routines; c) hypersensitivity or insensitivity to sensory stimuli; d) emergence of symptoms during early childhood and the disturbance of all these indications by limiting the daily functions (American Psychiatric Association [APA], 2013).

Social skills are learned skills that appropriate our interactions in the social environment we live and act in, also making it possible for us to recognize and avoid inappropriate reactions (Turhan & Vuran, 2015). The inadequacy of children with ASD to focus their attention on the social stimuli in their surroundings creates problems in social communication, understanding and communicating with people in their environment (Orsmond et al., 2004). These children have problems with making eye contact, understanding social stimuli, use of body language, insufficiency in facial expressions and gestures, imitation skills, common attention, limitations in protecting social reciprocity, taking turns during a conversation, taking the listener's point of view, adjusting the voice tone, expressing feelings, using and interpreting non-verbal, sarcastic and metaphorical language (Kircaali-İftar, 2014).

Frith notes that children with ASD are inadequate in making eye contact to express their feelings to the people around them, and that their eyes are important in the sense of social expressions (Frith, 2003). The findings of the research, in which children's interest in looking at a human face was observed by applying the eye-tracking method, revealed that the interest of these children in looking at a human face decreased consistently. This leads to problems in the common interest and sharing of speech during verbal communication, making natural adjustments in taking turn while talking, and in attentively establishing a dialogue (Kasari & Patterson, 2012). In this regard, children with ASD have difficulties in establishing social communication and expressing their feelings.

It is emphasized that children with ASD have big problems in sharing any idea or feeling in a way of naturally taking turns in social communication due to their weak social sensitivities, and when it comes to sharing any object (Brok & Barakova, 2010).

Various approaches are used in order to support social and communication skills of children with ASD (Yilmaz et al., 2014). Music therapy is one of them. It is defined as a systematic interference process in which the therapist uses musical experiences and relationships developed between the children as dynamic forces of change with the aim of supporting the client's health. Main techniques in music therapy are structured and unstructured improvisation, songs, and listening to music (Gold et al., 2006). It is known that music has a calming effect on children with ASD, besides making communication easier by reducing the boredom with its timbre and rhythmic features (Eren et al., 2013). Music therapy focuses on two main purposes in the education of

children with ASD, namely development of communication, language skills, and social skills (Yilmaz et al., 2014).

While the researches into the music therapy's effect on social skills of children with ASD are found in various sources, there is no research into the music therapy's effect on the development of social skills of these children in the classroom environment. In the Turkish Republic of Northern Cyprus (TRNC), a research based on the implementation of music therapy in the classroom environment has never been done before, and this is thought to be a major shortcoming. Therefore, how music therapy helps children with ASD in developing their ability to take turn-share and express feelings, and the music therapy's effect on the development of their social skills in the classroom environment constitute the questions of this research.

It is thought that the music therapy applied in this research will show its effects in developing social skills of children with ASD, and how these children can benefit from music therapy in their education. It is believed that the presentation of the methods, activities, instruments and regulations used in the music therapy program will promote awareness of families, education and health professionals about the benefits of music therapy. By presenting the music therapy program in full detail, it is thought that education, health professionals, and families will support research into the practice of music therapy specialists. As a result of this research, it is expected that music therapy will not be overlooked by the special education law, which is being prepared at TRNC, so all special education students could benefit from it in the future.

Research aim

The general aim of the research is to determine the effect of music therapy on the development of social skills to take turn-share and express feelings of a child with ASD.

With regards to this general aim, the following research questions are set:

Does the music therapy program affect children with ASD in terms of;

- a) Development of taking turn and sharing skill?
- b) Development of expressing feelings skill?
- c) The use of taking turn and sharing skill in a classroom environment?
- d) The use of expressing feelings skill in a classroom environment?

Demographic information about the participant

The participant is an 8-year-old child with diagnosed ASD. In 2016-2017 school year, the boy attended a primary state school in an inclusive class. Participant's receptive and expressive language development suits his age, but he has problems in self-expression, social communication and social interaction.

Method

Mixed method design was used in order to examine the impact of music therapy program on two particular skills of a child with ASD, to take turn-share and express feelings. A case study was chosen as the study method. Observation and document examination techniques were used as qualitative research methods in order to obtain

the data. The music therapy program was applied to the participant in the individual format by the researcher. The participant was involved in 70 video-recorded individual music therapy sessions that each lasted 30 minutes. These sessions were processed with the use of Music Therapy Session Rating Table, after the researcher completed the video recording of each music therapy session. The participant was also involved in 19 video-recorded classroom observations, which lasted 40 minutes each. The researcher processed the 19 classroom observations after she completed the video recording of each observation with the use of Classroom Environment Social Skills Rating Table. All the data obtained this way were analyzed quantitatively with the use of Oldfield's Video Analysis Method, which was designed for the needs of this research. Consent was obtained from the subject, the subject's family and the Northern Cyprus Ministry of National Education and Culture (Oldfield, 2006).

Development and implementation of the data collection tool and data analysis

Oldfield's video analysis approach is used for the development and implementation of the data collection tools adapted to this research. Oldfield has developed this approach to observe and interpret the reactions of less responsive children and their families. She recorded all the music therapy sessions in short and even time periods and observed the frequency of reactions. In this way she collected and analysed the data (Oldfield, 2006).

In this study, the frequency of occurrences of subordinate skills of taking turn-sharing and expressing feelings was examined in five-minute intervals. The above mentioned sub-skills were evaluated as follows: if not observed within the five minutes - 0=none; observed 1-6 times - 1=low; observed 7 to 12 times - 2= medium; observed 13 to 18 times - 3=good; observed 19 to 24 times - 4=very good; and observed 25 to 30 times - 5=excellent. The researcher watched the music therapy and the lesson observations recorded on video and completed the scoring sheets. The percentages were calculated according to the total of the scores given to the lower skills and a quantitative analysis was done (Oldfield, 2006).

Validity and Reliability of the Data

The two social skills in the video-recorded individual music therapy sessions and lesson observations were independently analyzed by two experts in the field and marked on the scoring tables. The findings of the researcher and the two experts were evaluated and then compared. Hence, with this comparison inter observer reliability was obtained. In order to gain an objective view in her research, Oldfield asked the research assistant to fill in the rating tables by analyzing the music therapy sessions. She compared her and the assistant's findings (Oldfield, 2006).

Preparation of the music therapy program

The objectives of the music therapy program are: 1 supporting the participant's taking turn and sharing skills by experiencing a safe and interactive environment with

the researcher; 2 supporting the participant's expression of feelings and thoughts with the confident use of voice and body by creating a safe environment with the music therapy program.

The music therapy program was developed with the help of information gathered from the observations from the participant's school, family and all the specialists working with him. The researcher created checklists by examining the school observations and studies done to support social skills of children with ASD. The data regarding the checklists were collected and analyzed during the course of the study. Oldfield's practices in music therapy with children with ASD were examined and a music therapy program was developed to support the participant's two social skills; research instruments were selected (Oldfield, 2006). As a pilot scheme, this program was implemented with the paricipant in the course of 10 sessions spanning two weeks. All attitudes of the participant were reported on and analysed. At the end of the pilot scheme, the music therapy program and the instruments were rearranged and took their final form. Activities of the music therapy program were created on the basis of the following: 'Hello Song'; 'Participant's act of choosing'; 'Participant's choice of instrument he wants both for himself and the researcher'; 'Researcher's act of choosing'; Researcher's choice of instrument he wants both for himself and the participant'; 'Researcher-participant large percussion instrument improvisation'; 'Researcher-participant voice improvisation'; 'Researcher-participant melodic instrument improvisation (piano or metallophone)'; 'Researcher-participant wind instrument improvisation (flute)'; 'Researcher-participant percussion instrument improvisation while sitting on chair'; 'Researcher-participant creating a story by improvisation'; 'Researcher-participant small percussion instrument improvisation'; 'Researcher-participant percussion instrument sharing'; 'Participant playing an instrument he chooses and researcher listening'; and 'Goodbye Song' (Oldfield, 2006).

Results

Figure 1 shows the development of the participant's sub-skills of taking turn-sharing skill in 70 music therapy sessions in percentages.

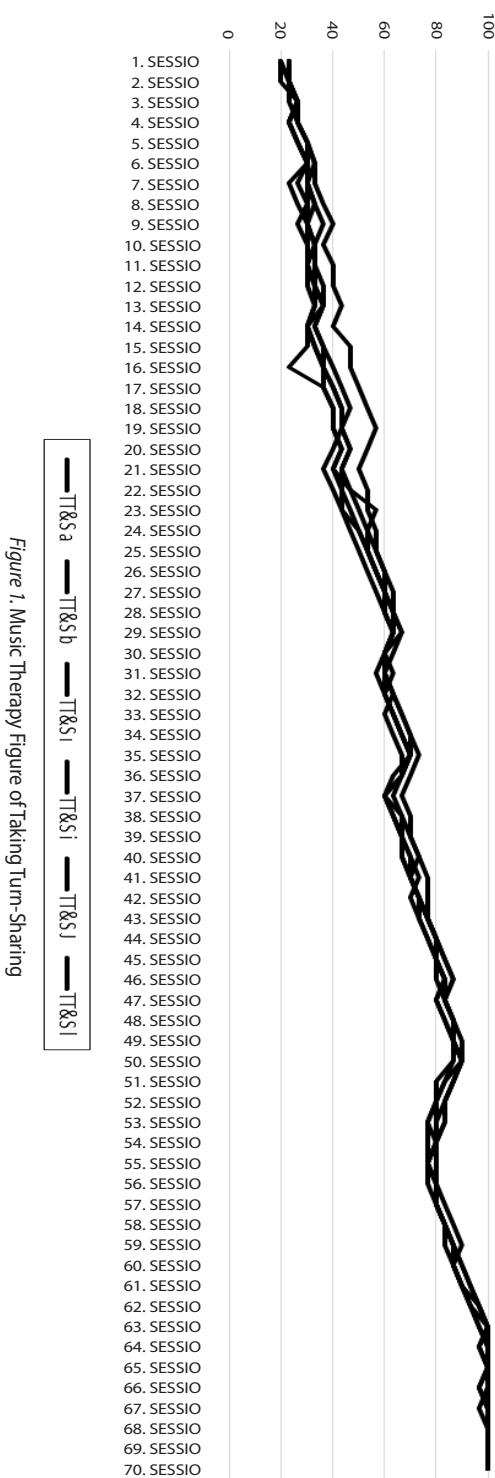
- a The participant listens to the researcher as he speaks, recorded as: in the first session 23,3 %, in the tenth session 36,6 %, and in the twentieth session 53,3 %. In the thirtieth session 60 %, in the fortieth session 70 %, and in the fiftieth session it reaches 86,6 %. While it was recorded as 90 % in the sixtieth session, in the seventieth session it reaches 100 %.
- b The participant speaks when he should: in the first session it is recorded at 20 %, in the tenth session 33,3 %, in the twentieth session 40 %, and in the thirtieth session it was recorded as 60 %. In the fortieth session 70 % was recorded, in the fiftieth session 86,6 %, and in the sixtieth session it stays stable. In the seventieth session it reaches 100 %.
- 1 The participant shares his ideas when the researcher asks and says something positive or negative about him: in the first session it is recorded as 23,3 %, in

the tenth session 33,3 %, in the twentieth 43,3 %, and in the thirtieth session it reaches 60 %. In the fortieth session it is 66,6 %, in the fiftieth session it reaches 90 %. In the sixtieth session it falls to 86,6 %, and in the seventieth session it reaches 100 %.

i While the participant plays an instrument during the musical dialogue, he allows the researcher to use the instrument: in the first session 20 %, in the tenth session 33,3 %, in the twentieth session 46,6 %, and in the thirtieth session it reaches 60 %. In the fortieth session it is recorded at 66,6 % and in the fiftieth session it reaches 90 %. In the sixtieth session it falls to 86,6 %, while in the seventieth session it reaches 100 %.

j The participant shares the researcher's instrument by using it while the researcher plays it during the musical dialogue: in the first session it is 23,3 %, in the tenth session 30 %, in the twentieth session 43,3 %, and in the thirtieth session it was recorded as 63,3 %. In the fortieth session it was recorded as 73,3 %, and in the fiftieth session it reaches 90 %. In the sixtieth session it falls to 86,6 %, and in the seventieth session it reaches 100 %.

l During the musical dialogue the participant shares the songs with the researcher by using his voice and instrumental improvisations while singing: in the first session it was recorded as 20 %, in the tenth



session 30 %, in the twentieth session 46,6 %, and in the thirtieth session it reaches 60 %. In the fortieth session it was recorded as 73,3 %, in the fiftieth session 90 %, in the sixtieth session it stays stable, and in the seventieth session it reaches 100 %.

Figure 2 shows the development of the participant's sub-skills of expressing feelings in 70 music therapy sessions in percentages.

- a The participant expresses his positive feelings about himself verbally: in the first session it was recorded as 20 %, in the tenth session 40 %, and in the twentieth session it reaches 50 %. In the thirtieth and fortieth session it stays at 50 %, and in the fiftieth session it reaches 70 %. In the sixtieth session it was recorded at 83,3 %, and in the seventieth session it reaches 100 %.
- c The participant expresses his positive feelings about his family and inner circle verbally: 23,3 % in the first session, in the tenth session 43,3 %, and in the twentieth session it reaches 53,3 %. In the thirtieth and fortieth session it is recorded as 53,3 %, in the fiftieth session 70 %, in the sixtieth session 83,3 %, and in the seventieth session it reaches 100 %.
- e The participant expresses his positive feelings about his teacher and/or friends verbally: in the first session 20 %, in the tenth session 43,3 %, in the twentieth session 46,6 %, and in the thirtieth session it reaches 56,6 %. In the fortieth session it falls to 50 %, in the fiftieth session 70 %, in the sixtieth session 90 %, and in the seventieth session it reaches 100 %.

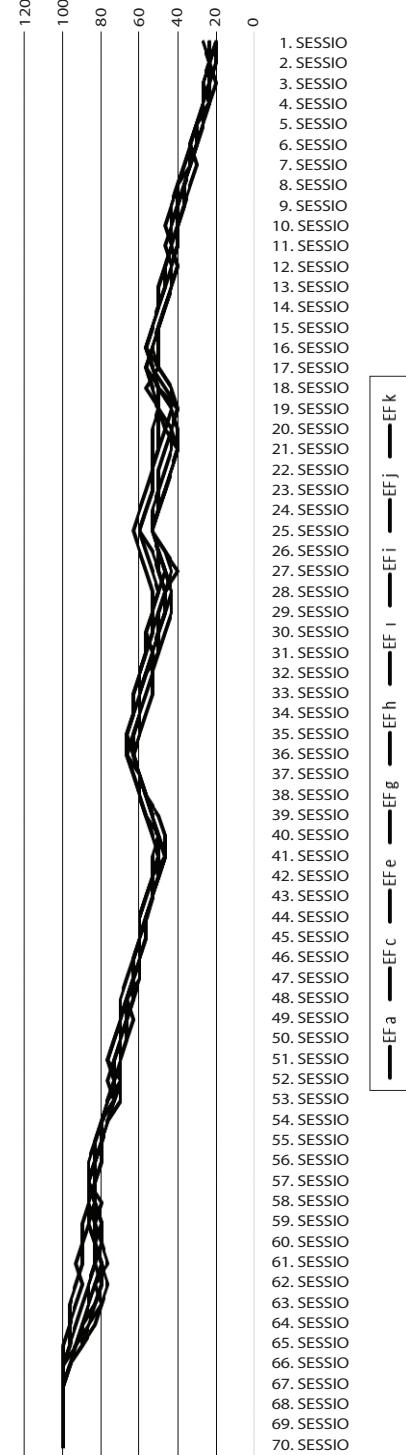


Figure 2. Music Therapy Figure of Expressing Feelings

- g The participant speaks by adjusting his tone of voice: in the first session it is 23,3 %, in the tenth session 40 %, in the twentieth session 43,3 %, and in the thirtieth session it reaches 46,6 %. In the fortieth session it is 50 %, in the fiftieth session 70 %, in the sixtieth session 83,3 %, and in the seventieth session it reaches 100 %.
- h The participant speaks by highlighting some points using his tone of voice: in the first session it was recorded as 20 %, in the tenth session it falls to 43,3 %, and in the twentieth session it falls to 40 %. In the thirtieth session it reaches to 50 %, and in the fortieth session it falls to 46,6 %. In the fiftieth it reaches 66,6 %, in the sixtieth session 90 %, and in the seventieth session it reaches 100 %.
- i While speaking with the researcher, the participant uses mime and gestures appropriate to his speech: in the first session it was recorded at 23,3 %, in the tenth session 40 %, in the twentieth session it reaches to 53,3 %, and in the thirtieth session it falls to 50 %. In the fortieth session it stays stable, in the fiftieth session it is 70 %, in the sixtieth session 83,3 %, and in the seventieth session it reaches 100 %.
- j In the musical dialogue with the researcher, the participant uses the tone of voice to express positive and negative feelings: recorded as 26,6 % in the first session, in the tenth session 40 %, in the twentieth session 43,3 %, and in the thirtieth session it reaches 50 %. In the fortieth session it stays stable, in the fiftieth session it reaches 73,3 %, in the sixtieth session 80 %, and in the seventieth session it reaches 100 %.
- k In the musical dialogue with the researcher, the participant plays the instruments by choosing them to express his positive and negative feelings: in the first session it was recorded as 26,6 %, in the tenth session 40 %, in the twentieth session 43,3 %, and in the thirtieth it reaches 53,3 %. In the fortieth session it falls to 50 %, in the fiftieth session it is 73,3 %, in the sixtieth session 83,3 %, and in the seventieth session it reaches 100 %.
- l In the musical dialogue with the researcher, the participant sings his preferred songs to express positive and negative feelings indicated with the tone of voice: it was recorded in the first session as 20 %, in the tenth session it reaches 46,6 %, and in the twentieth session it stays stable. In the thirtieth session it reaches 56,6 %, in the fortieth session it falls to 50 %. In the fiftieth session it is recorded at 66,6 %, in the sixtieth session 80 %, and in the seventieth session it reaches 100 %.

Figure 3 shows the development of the participant's sub-skills of taking turn-sharing in 19 lesson observations in percentages.

- a In the classroom, the participant listens to his teacher and/or friends when they are in a positive or negative dialogue that is or is not about him: in the first lesson it is 22,5 %, in the fourth lesson 35 %, in the eighth 57,5 %, and in the twelfth lesson it reaches 80 %. In the sixteenth lesson it reaches 100 % and it stays stable till the nineteenth lesson.
- b In the classroom, the participant speaks when he should when he is in a positive or negative dialogue with his teacher and/or friends about him or not about him:

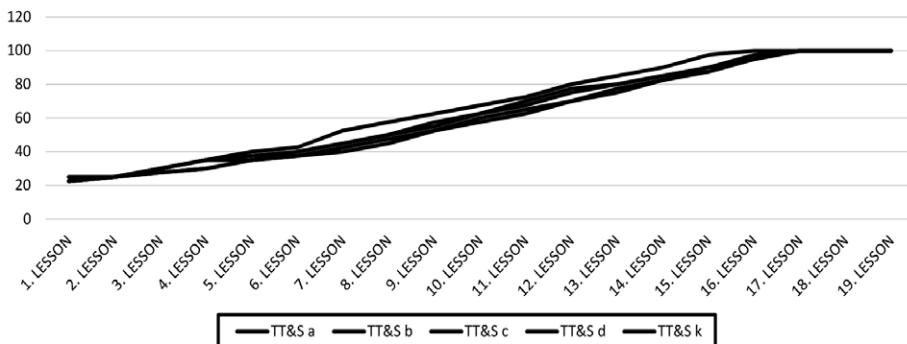


Figure 3. Lesson Observation Figure of Taking Turn-Sharing

in the first lesson it is 22,5 %, in the fourth lesson 35 %, in the eighth lesson 50 %, and in the twelfth lesson it reaches 75 %. In the sixteenth lesson it is 95 %, and in the nineteenth lesson it reaches 100 %.

- c In the classroom, the participant waits when it is his friends' turn during an activity with his teacher and/or friends: in the first lesson it is 25 %, in the fourth lesson 35 %, in the eighth lesson 45 %, and in the twelfth lesson it reaches 70 %. In the sixteenth lesson it is 95 %, and in the nineteenth lesson it reaches 100 %.
- d In the classroom, the participant is included in the activity with his teacher and/or friends only when he should be: in the first lesson it is 22,5 %, in the fourth lesson 35 %, in the eighth lesson 50 %, and in the twelfth lesson it reaches 77,5 %. In the sixteenth lesson it is 95 % and in the nineteenth lesson it reaches 100 %.
- k The participant shares his seat with his friend/s when it is needed, considering the seating order: in the first lesson it is 25 %, in the forth lesson 35 %, in the eighth lesson 47,5 %, and in the twelfth lesson it reaches 70 %. In the sixteenth lesson it is 95 % and in the nineteenth lesson it reaches 100 %.

Figure 4 shows the development of the participant's sub-skill of expressing feelings in 19 lesson observations in percentages.

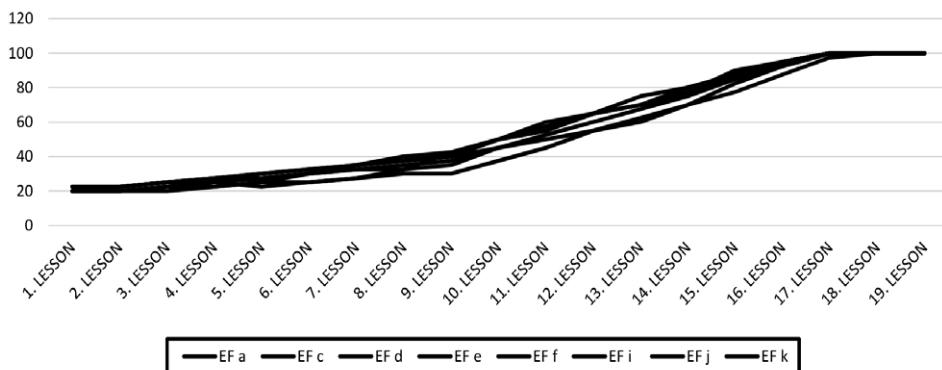


Figure 4. Lesson Observation Figure of Expressing Feelings

- a The participant verbally expresses his positive feelings about himself in the classroom: 20 % in the first lesson, 22,5 % in the fourth lesson, 32,5 % in the eighth lesson, and in the twelfth lesson it reaches 65 %. It is 95 % in the sixteenth lesson and in the nineteenth lesson it reaches 100 %.
- c The participant expresses his positive and negative feelings about the classroom environment (e.g. noise, pollution, transition between activities, etc.) in the class verbally: in the first lesson it is 20 %, in the fourth lesson 25 %, in the eighth lesson 32,5 %, and in the twelfth lesson it reaches 60 %. In the sixteenth lesson it is 92,5 % and in the nineteenth lesson it reaches 100 %.
- d The participant expresses his positive and negative feelings about his family and the classroom environment verbally: it is 20 % in the first lesson, in the fourth lesson 27,5 %, in the eighth lesson 40 %, and in the twelfth lesson it reaches 65 %. In the sixteenth lesson it is 95 % and in the nineteenth it reaches 100 %.
- e The participant expresses positive and negative feelings about his teacher and/or friends in the classroom verbally: it is 20 % in the first lesson, in the fourth lesson 22,5 %, in the eighth lesson 30 %, and in the twelfth lesson it reaches 55 %. In the sixteenth lesson it is 87,5 % and in the nineteenth lesson it reaches 100 %.
- f The participant verbally expresses positive and negative feelings about a classroom activity: in the first lesson it is 22,5 %, in the fourth lesson 25 %, in the eighth lesson 35 %, and in the twelfth lesson it reaches 60 %. In the sixteenth lesson it is 95 % and in the nineteenth lesson it reaches 100 %.
- i The participant speaks in the classroom by adjusting his tone of voice: it is 22,5 % in the first lesson, in the fourth lesson it is 27,5 %, in the eighth lesson 37,5 %, and in the twelfth lesson it reaches 65 %. In the sixteenth lesson it is 95 % and in the nineteenth lesson it reaches 100 %.
- j The participant speaks in the classroom highlighting some points by using his tone of voice: it is 20 % in the first lesson, in the fourth lesson 25 %, in the eighth lesson 37,5 %, and in the twelfth lesson it reaches 55 %. In the sixteenth lesson it is 92,5 % and in the nineteenth lesson it reaches 100 %.
- k While speaking in the classroom, the participant uses mime and gestures appropriate to his speech: in the first lesson it is 22,5 %, in the fourth lesson 27,5 %, in the eighth lesson 40 %, and in the twelfth lesson it reaches 65 %. In the sixteenth lesson it is 65 % and in the nineteenth lesson it reaches 100 %.

Discussion and Conclusion

The study showed that the participant's taking turn-sharing and expressing feelings skills developed during the music therapy sessions and lesson observations.

There is no specific study on the impact of music therapy on the development of taking turn-sharing skill in the related literature. However, while there are studies on the taking turn skill of children with ASD, the studies on the sharing skill are limited.

According to the results of the case studies on the effects of music therapy on social interaction and emotional communication of children with ASD, music therapy positively influences language skills of these children, their verbal and non-verbal communication, participation in games, playing together, and taking turn. Furthermore, it is underlined that music therapy also supports the development of these children's listening skills and forming the consequent response (Yilmaz et al., 2014).

Saville (2007) states that music therapy supports taking turn skill with the therapist by developing taking turn dialogues through voice and instrumental improvisations in the studies on children with ASD.

Raglio et al. (2011) state that improvised music co-creation process supports the process of sharing, taking turn, and mutual interaction by creating the realationship between the individual with ASD and the therapist.

Porte (2014) conducted a qualitative research using the microanalysis method entitled Interaction with a Child with Autism Spectrum Disorder. As a result of the research, it is revealed that the instruments and improvised music formation develops the participant's skill of sharing feelings and thoughts with the use of body expressions, voice and face in music therapy sessions.

Ghasemtabar et al. (2015) state that music therapy promotes the development of taking turn and sharing skills of children with ASD by creating musical interactive atmosphere. They also emphasize the tendency of these children towards uniformity is partly reduced because of lesser occurrence of repetitive patterns.

There are several studies on the influence of music therapy on the development of the ability of children with ASD to express their feelings.

Tomlinson (2010) aimed to learn about the process of using music therapy in her research conducted in a special education school with a child with ASD. She used recorded music therapy sessions with clinical reports she wrote to monitor the musical development. The results show that the child with ASD expresses various feelings by playing the instruments, i.e. the skill of expressing feelings is developed.

Pavlicevic and Ansdell (2004) argue that music therapy can be used as an educational and therapeutic tool for children with ASD. They emphasize that music therapy supports the development of awareness of children with ASD, their self-expression, aesthetic feelings, motor skills, voice, language and social skills.

When we observe the studies on the effect of music therapy on the development of taking turn-sharing skill of children with ASD in the classroom environment, it is noticeable that group music therapy is adapted to the classroom environment and that instruments are shared and circulated between the group members and that, while a group member plays the solo instrument, the other group members wait, which supports taking turns and instrument sharing. In addition, it is emphasized that two children playing the same drum by taking turn and sharing supports the development of this skill (Simpson, 2013).

Barrow-Moore (2007) conducted a study to determine whether the use of music during lessons in the classroom environment would increase the reactions of children

with ASD. The study focuses on talking, taking turn-sharing, and making eye contact of 5 children with ASD aged 5 to 7. Six sessions in total were conducted in this study. The responses were collected by the researcher and the class assistant. At the end of the research, it was revealed that children with ASD increased the awareness, interest and had more positive reactions in the classroom environment in which music therapy was used, compared to the one where traditional teaching methods were used.

Caltabiano (2010) sought to examine the joint attention, imitation and taking turn skills in his research entitled the Effects of Music Therapy on Social Behaviour of Children with Autism Spectrum Disorder in the Context of Open Air Integration Classroom. Four children with ASD, aged 9 to 12, participated in the study. Social behaviors of the students with ASD were observed in both music therapy and integration classes using mixed methods; a video was recorded and evaluated using rating scales. Other factors can also be observed: namely peer tutoring, questioning, encouraging, modelling, and closeness were examined and comprised two broad categories of teacher-mediated and peer-mediated approaches. The results of the research show that the power of both approaches improves joint attention and taking turn skill by facilitating the integration experiences of children with ASD.

The studies on the effect of music therapy on the development of the ability of children with ASD to express their feelings in the classroom environment are limited.

O'Connor (2013) aimed to reveal how music therapy implemented as a part of the school program supports the interaction of children with ASD in her study entitled Playground: Supporting Interactions of Children with ASD through Music Therapy Groups in Special Education Classes. The clinical trial was analyzed in a qualitative study using clinical records, supervision notes, staff meetings, and reflective research journals, lasting more than 10 months. Ten children between 5 and 10 years of age participated in two complementary forms of group music therapy implemented on the same day and with the same children. One of the groups was the morning therapy group, while the other was held in free form at the end of the day. The results of the study indicated that morning music therapy promotes emotional sensitivity and calmness, supports new experiences and structured interaction opportunities, and develops self-expressive behaviors of children with ASD. The results also show that the free form of music therapy supported initiation of interactions and more expressive communication of children with ASD.

Mendelson et al. (2016) conducted a research in which one group of subjects participated in the long-term, fifteen-week long music therapy, and another in the short-term, seven-week long music therapy named Voices Together. In the research, they examined the influence of music therapy on the development of communication skills of 5 children with ASD and 32 mentally retarded children, in special education classes, in four public schools. The three songs that were created and used every week aimed to demonstrate the effect of music therapy on verbal responsiveness in the classroom environment, by

supporting the skills of taking turn and expressing feelings. As a result of the study, it was stated that the effect of music therapy was more evident in verbal responsiveness of the participants in the course of the fifteen week period, showing that the participants were effective in taking turn, expressing themselves and increasing their verbal sensitivity through songs.

When the researches in the literature are observed, it is seen that music therapy applied both in and out of the classroom environment supports the development of social skills of individuals with ASD to express and share their feelings. This research revealed that the music therapy program, applied in the same way as in the researches in the related literature, supports social skills of the participants to share and express their feelings. Moreover, this study found that both participant's social skills developed in the classroom environment, and that music therapy can also support the development of social skills of a child with ASD without being practiced in the classroom environment.

In the future, we recommend the research into the effect of music therapy on social skills of children with ASD and other related diagnosis, in or out of the school environment, by creating experimental and control groups and making comparisons. Furthermore, examination of views and attitudes of special education teachers, parents and family members on the effect of music therapy on social skills of children with ASD and other related diagnosis can also be suggested as the subject of future research.

References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders*. (5th ed.). American Psychiatric Publishing. <https://doi.org/10.1176/appi.books.9780890425596>
- Barrow-Moore, J. L. (2007). *The effects of music therapy on the social behavior of children with autism*. (Master's thesis). San Marcos: College of Education California State University in San Marcos.
- Brok, J. C. J., & Barakova, E. I. (2010). Engaging autistic children in imitation and turn-taking games with multiagent system of interactive lighting blocks. In H.S. Yang, R. Malaka, J. Hoshino, & J.H. Han (Eds.), *12TH International Conference on Entertainment Computing- ICEC 2010 - Lecture notes in computer science: Vol. 6243* (pp. 115-126). Springer. https://doi.org/10.1007/978-3-642-15399-0_11
- Caltabiano, A. (2010). *The impact of music therapy on the social behaviours of children with Autism in a structured outdoor inclusive setting*. (Master's thesis). Sydney Conservatorium of Music University of Sydney in Sydney.
- Eren, B., Düzkantar, A., & Deniz, J. (2013). The effectiveness of embedded teaching through the most-to-least prompting procedure in concept teaching to children with autism within Orff-based music activities. *Educational Sciences: Theory & Practice*, 13(3), 1863-1887. <https://doi.org/10.12738/estp.2013.3.1499>

- Frith, U. (2003). *Autism: Explaining the enigma*. (2nd ed.). Blackwell Publishing.
- Ghasemtabar, S. N., 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 (157), 1-8. <https://doi.org/10.4103/2277-9175.161584>
- Gold, C., Wigram, T., & Elefant, C. (2006). Music therapy for autistic spectrum disorder. *Cochrane Database of Systematic Reviews*, 2(2), 1-50. <https://doi.org/10.1002/14651858.CD004381.pub2>
- Kircaali-İftar, G. (2014). Otizm spektrum bozukluğuna genel bakış. In E. Tekin-İftar (Ed.), *Otizm spektrum bozukluğu olan çocukların ve eğitimcileri* (pp: 17-43). Vize Yayıncılık.
- Lindgren, S., & Doobay, A. (2011). *Evidence-based interventions for autism spectrum disorders*. Unpublished research, Iowa Department of Human Services, The University of Iowa. <http://www.interventionsunlimited.com/editoruploads/files/Iowa %20DHS %20Autism %20Interventions %206-10-11.pdf>
- Mendelson, J., White, Y., Hans, L., Adebari, R., Schmid, L., Riggsbee, J., & Dawson, G. (2016). A preliminary investigation of a specialized music therapy model for children with disabilities delivered in a classroom setting. *Autism Research and Treatment*, 2016, 1-8. <https://doi.org/10.1155/2016/1284790>
- O'Connor, K. T. S. (2013). *A play ground: Supporting interactions of children with autism through music therapy groups in a special education classroom*. (Master's thesis). New Zealand School of Music Massey University Wellington Aotearoa in New Zealand.
- Oldfield, A. (2006). *Interactive music therapy: A positive approach: Music therapy at a child development centre*. Jessica Kingsley Publishers.
- Orsmond, G., Krauss M. W., & Seltzer, M. M. (2004). Peer relationships and social and recreational activities among adolescents and adults with autism. *Journal of Autism and Developmental Disorders*, 34(3), 245-56. <https://doi.org/10.1023/B:JADD.0000029547.96610.df>
- Pavlicevic, M., & Ans dell, G. (2004). *Community music therapy*. Jessica Kingsley Publishers.
- Porte, J. M. (2014). *Interaction with an ASD (Autism spectrum disorder) child through turn-taking* (Master's thesis). Department of Communication and Psychology Aalborg University in Aalborg.
- Raglio, A., Traficante, D., & Oasi, O. (2011). Autism and music therapy: Intersubjective approach and music therapy assessment. *Nordic Journal of Music Therapy*, 20(2), 123-141. <https://doi.org/10.1080/08098130903377399>
- Simpson, J. (2013). *The effect of music therapy on social skills training in a preschool setting*. (Master's thesis). College of Music The Florida State University in Florida.
- Striano, T., & Reid, V. (2009). Social Cognition at the Crossroads: Perspectives on understanding others. In T. Striano & V. Reid (Eds.), *Social cognition: Development, neuroscience and autism* (pp. 3-16). Wiley-Blackwell, Wiley.
- Tan, M., & Khetrapal, N. (2016). Music inspired framework for remediating emotional deficits in autism. *Procedia Computer Science*, 88, 469–474. <https://doi.org/10.1016/j.procs.2016.07.466>
- Tomlinson, J. (2010). Music therapy for children with autism in an educational context. In V. Karkou, (Ed.), *Arts therapies in schools: Research and practice* (pp: 231-242). Jessica Kingsley Publishers.

Turhan, C., & Vuran, S. (2015). The effectiveness and efficiency of social stories and video modelling on teaching social skills to children with autism. *International Journal of Early Childhood Special Education*, 7(2), 294-315. <https://doi.org/10.20489/intjecse.31495>

Yılmaz, F. E., Topaloğlu, G., & Akyüzler, M. (2014). Description of the effect of musical activity with group on social skills of children with autism. *Bartin University Journal of Faculty of Education*, 3(1), 252-276. <https://doi.org/10.14686/BUEFAD.201416217>

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Analiza učinka programa glazbene terapije na vještine izmjenjivanja-dijeljenja i izražavanja osjećaja djece s poremećajem iz spektra autizma

Sažetak

Cilj je ove studije ispitati utjecaj glazbene terapije na razvoj sposobnosti izmjenjivanja-dijeljenja i izražavanja osjećaja osmogodišnjega djeteta s poremećajem iz spektra autizma (ASD). Dizajn istraživanja koristi mješovitu istraživačku metodu. Studija je provedena u državnoj školi koja ima ciljani razred, školske godine 2016./2017. Istraživačica je kreirala program glazbene terapije i primijenila ga u radu s ispitanikom u individualnom obliku. Ispitanik je sudjelovao u 70 individualnih sati glazbene terapije održanih u unaprijed pripremljenoj prostoriji i 19 nastavnih sati održanih u njegovo učionici, tj. opservacija nastave. Sati glazbene terapije i opservacije nastave kvantitativno su obrađeni upotrebom Oldfield metode videoanalize. Rezultati analize pokazuju da su se socijalne vještine ispitanika izmjenjivanja-dijeljenja i izražavanja osjećaja poboljšale u objema istraživanjima: glazbenoj terapiji i opservacijama nastave. U radu se raspravlja o rezultatima istraživanja u kontekstu relevantne literature.

Ključne riječi: dizajn miješane metode; glazbena terapija; Oldfield metoda videoanalize; poremećaj iz spektra autizma (ASD); socijalne vještine.

Uvod

Poremećaj autističnoga spektra obuhvaća skupinu neurorazvojnih poremećaja koji se odražavaju u intenzivnoj nesposobnosti komunikacije, nefleksibilnim uzorcima vještina i ograničenim područjima interesa u socijalnoj interakciji (Lindgren i Doobay, 2011). Karakteristike su ASD-a teškoće u socijalnoj komunikaciji prema dobi i kontekstu (Yilmaz i sur., 2014). Područja koje naglašava DSM 5 (Dijagnostički i statistički priručnik za duševne poremećaje) pri dijagnozi ASD-a su sljedeća: a) kronični poremećaji u socijalnoj komunikaciji i socijalnoj interakciji, b) ograničene i repetitivne vještine, interesi i uzorci uspješnosti, ustrajanje na jednoobraznosti i predanost rutinama, c)

preosjetljivost ili neosjetljivost na senzorne podražaje, d) pojavljivanje simptoma tijekom ranoga djetinjstva i ograničeno svakodnevno funkcioniranje kao rezultat poremećaja svih prethodno navedenih pokazatelja (Američko udruženje psihologa-APA, 2013).

Socijalne vještine su naučene vještine koje nam omogućuju interakciju sa socijalnom okolinom u kojoj djelujemo i živimo te prepoznavanje i izbjegavanje neprimjerenih reakcija (Turhan i Vuran, 2015). Nesposobnost djece s ASD-om usmjeravanja pažnje na socijalne podražaje u njihovoj okolini stvara probleme u socijalnoj komunikaciji, tj. razumijevanju i komuniciranju s ljudima u njihovoj okolini (Orsmond i sur., 2004). Ova djeca imaju problema pri uspostavljanju kontakta očima, razumijevanju socijalnih podražaja, upotrebi govora tijela, nedovoljno razvijenu facialnu ekspresiju i geste, podijeljenu pažnju, ograničenja u održavanju socijalnoga reciprociteta, izmjenjivanju tijekom razgovora, zauzimanju stava slušatelja, prilagodbi i promjeni tona glasa, izražavanju osjećaja, izražavanju i tumačenju neverbalnoga sarkazma i metaforičkoj upotrebi jezika (Kircaali-İftar, 2014).

Frith bilježi da djeca s ASD-om imaju slabo razvijenu sposobnost uspostavljanja kontakta očima s ciljem pokazivanja osjećaja ljudima u svojoj okolini i naglašava važnost spomenutoga u socijalnoj ekspresiji (Frith, 2003). Rezultati istraživanja u kojem je ispitivan interes djece s ASD-om za promatranje ljudskoga lica primjenom metode praćenja očiju, otkrili su da je interes djece za promatranje ljudskoga lica bio u stalnom padu. Navedeno vodi do problema u području zajedničkih interesa i dijeljenja govora tijekom verbalne komunikacije, prirodne prilagodbe na izmjenjivanje tijekom razgovora i u području uspostavljanja dijaloga (Kasari i Patterson, 2012). U tom pogledu, djeca s ASD-om imaju poteškoće u socijalnoj komunikaciji i izražavanju vlastitih osjećaja u njezinom tijeku.

Naglašava se kako djeca s ASD-om imaju velikih problema kada treba podijeliti bilo koju zamisao ili osjećaj prirodnim redom, tj. izmjenjivanjem u socijalnoj komunikaciji zbog slabo razvijene socijalne osjetljivosti, a isti je slučaj i s dijeljenjem predmeta (Brok i Barakova, 2010).

Razni pristupi koriste se da bi se razvile socijalne vještine i vještine komunikacije djece s ASD-om (Yilmaz i sur., 2014). Glazbena terapija jedan je takav pristup definiran kao sustavni proces u kojemu terapeut koristi glazbena iskustva i uspostavljene odnose između njih kao pokretačku snagu promjene u procesu razvoja zdravlja korisnika. Glavne tehnike glazbene terapije su strukturirane i nestrukturirane improvizacije, pjesme i slušanje glazbe (Gold i sur., 2006). Poznato je da glazbena terapija ima umirujući učinak na djecu s ASD-om, olakšava komunikaciju odstranjujući dosadu bojom zvuka i ritmičkim obilježjima (Eren i sur., 2013). Glazbena terapija fokusira se na dvije glavne svrhe obrazovanja djece s ASD-om, razvoj komunikacije i jezičnih vještina i razvoj socijalnih vještina (Yilmaz i sur., 2014).

Dok su istraživanja učinka glazbene terapije na razvoj socijalnih vještina djece s ASD-om brojna, nema istraživanja učinka glazbene terapije na razvoj socijalnih vještina djece s ASD-om u učioničkoj okolini. U Turskoj Republici Sjevernog Cipru

istraživanje u području glazbene terapije nikada prije nije provedeno, što se smatra velikim nedostatkom. Stoga ovo istraživanje nastoji utvrditi kako glazbena terapija pomaže djeci s ASD-om u razvoju socijalnih vještina izmjenjivanja-dijeljenja i izražavanja osjećaja u učioničkoj okolini te navedeno postavlja kao istraživačka pitanja.

Prepostavka je ovoga istraživanja da će primjena glazbene terapije pokazati pozitivne učinke na razvoj socijalnih vještina djece s ASD-om i načine na koje se glazbena terapija može koristiti u obrazovanju djece s ASD-om. Vjerujemo da će predstavljanje metoda, aktivnosti, instrumenata i pravila korištenih u glazbenoj terapiji podići svijest obitelji, obrazovnih i zdravstvenih stručnjaka o pozitivnim učincima glazbene terapije. Detaljno predstavljajući program glazbene terapije, smatramo kako će obitelji i obrazovni i zdravstveni stručnjaci podržati daljnja istraživanja prakse specijalista glazbene terapije. Očekujemo da će, kao rezultat istraživanja, glazbena terapija biti uvrštena u zakon o posebnom obrazovanju koji priprema Turska Republika Sjeverni Cipar za sve učenike korisnike, kako bi iskusili njezine koristi.

Cilj istraživanja

Opći cilj istraživanja bio je utvrditi učinak glazbene terapije na razvoj socijalnih vještina izmjenjivanja-dijeljenja i izražavanja osjećaja djeteta s ASD-om.

Prema tako postavljenom općem cilju, postavljena su sljedeća istraživačka pitanja:

Utječe li program glazbene terapije na djecu s ASD-om u smislu:

- a) razvoja vještina izmjenjivanja i dijeljenja
- b) razvoja vještine izražavanja osjećaja
- c) upotrebe vještina izmjenjivanja i dijeljenja u razrednoj okolini
- d) upotrebe vještine izražavanja osjećaja u razrednoj okolini?

Demografski podatci o ispitaniku

Ispitanik je osmogodišnje dijete kojemu je dijagnosticiran poremećaj autističnoga spektra. Dječak je u školskoj godini 2016./2017. pohađao državnu osnovnu školu u inkluzivnom razredu. Ispitanikov receptivni i ekspresivni jezični razvoj primjeren je dobi, ali su detektirani problemi u samozričaju, socijalnoj komunikaciji i socijalnoj interakciji.

Metoda

U ovom istraživanju korišten je dizajn mješovite metode kako bi se ispitao učinak glazbene terapije na dvije specifične vještine djeteta s ASD-om – izmjenjivanje-dijeljenje i izražavanje osjećaja. Studija slučaja odabrana je kao istraživačka metoda. Tehnike opservacije i analize dokumenata korištene su kao kvalitativne istraživačke metode za prikupljanje podataka. Istraživačica je primijenila program glazbene terapije s ispitanikom u individualnom obliku. Ispitanik je sudjelovao u 70 sati glazbene terapije u individualnom obliku. Svaki sat trajao je 30 minuta i snimljen je. Nakon što je pregledala videosnimke sati glazbene terapije, istraživačica ih je obradila uz

korištenje Tablice za evaluaciju glazbene terapije. Ispitanik je također sudjelovao u 19 nastavnih sati u trajanju od 40 minuta, tj. opservacija nastave. Nakon što je pregledala videosnimke opservacija, istraživačica ih je obradila pomoću Tablice za evaluaciju socijalnih vještina u učioničkoj okolini. Ovako dobiveni podatci kvantitativno su obrađeni upotrebom Oldfield metode videoanalize koja je dizajnirana za potrebe ovoga istraživanja. Pristanak za sudjelovanje u istraživanju dali su ispitanik, njegova obitelj i Ministarstvo obrazovanja i kulture Sjevernoga Cipra (Oldfield, 2006).

Prikupljanje i analiza podataka

Za prikupljanje podataka korišten je pristup Oldfield videoanalize prilagođen ovome istraživanju. Oldfield je razvila ovaj pristup kako bi promatrala i tumačila reakcije manje responsivne djece i njihovih obitelji. Snimala je sve sate glazbene terapije u kratkim i jednakim periodima u kojima je promatrala i bilježila učestalost reakcija. Na je taj način prikupila i analizirala podatke (Oldfield, 2006).

U ovoj studiji ispitivana je učestalost pojavljivanja podvještina izmjenjivanja-dijeljenja i izražavanja osjećaja u petominutnim intervalima. Spomenute podvještine evaluirane su na sljedeći način: 0 = nulta razina (ako vještina nije zabilježena ni jednom u pet minuta), 1 = niska razina (vještina se pojavljuje 1-6 puta), 2 = srednja razina (vještina zabilježena 7-12 puta), 3 = razina dobar (vještina zabilježena 13-18 puta), 4 = razina vrlo dobar (frekvencija pojavljivanja vještine je od 19 do 24) i 5 = razina odličan (vještina zabilježena 25 do 30 puta). Istraživačica je gledala snimke glazbene terapije i nastave te ispunila evaluacijske liste, postotci su izračunati prema ukupnim vrijednostima rezultata vještina niske razine i provedena je kvantitativna analiza (Oldfield, 2006).

Valjanost i pouzdanost podataka

Dvije socijalne vještine ispitane su upotrebom videozapisa sati glazbene terapije i opservacija nastave koje su nezavisno analizirala dva stručnjaka iz tog područja i zabilježila rezultate u tablicama. Nalazi istraživačice i dva stručnjaka evaluirani su i međusobno uspoređeni. Tom usporedbom dobivena je pouzdanost među promatračima. Kako bi se postigla objektivnost, Oldfield je zamolila asistenta u istraživanju da popuni evaluacijske tablice na osnovi analize sati glazbene terapije, a potom je usporedila svoje i nalaze asistenta (Oldfield, 2006).

Priprema programa glazbene terapije

Ciljevi programa glazbene terapije su: 1. razvijanje vještina izmjenjivanja i dijeljenja ispitanika s istraživačicom kroz doživljaj sigurne i interaktivne okoline, 2. razvijanje izražavanja misli i osjećaja ispitanika samopouzdanom upotrebom glasa i tijela kroz kreiranje sigurne okoline u programu glazbene terapije.

Program glazbene terapije razvijen je na osnovi informacija prikupljenih od ispitanikove škole, obitelji i specijalista koji su radili s dječakom prije istraživanja. Istraživačica je kreirala kontrolne liste na osnovi proučavanja školskih opservacija

i studija o razvijanju društvenih vještina djece s ASD-om. Podatci za kontrolne liste prikupljeni su i analizirani tijekom istraživanja. Proučena je praksa glazbene terapije koju je Oldfield provodila s djecom s ASD-om. Na toj je osnovi razvijen program glazbene terapije koji podržava dvije žarišne socijalne vještine ispitanika, a odabrani su i instrumenti (Oldfield, 2006). Program je proveden s ispitanikom u obliku pilot-sheme, u trajanju od 10 sati kroz dva tjedna; svi su stavovi sudionika analizirani u izvještajima. Na kraju pilot-sheme revidiran je program glazbene terapije i instrumenti, a terapija je tako zadobila svoj konačni oblik. Aktivnosti u programu glazbene terapije su sljedeće: pozdravna pjesma, čin biranja sudionika, ispitanik bira instrument za sebe i istraživačicu, istraživačica bira instrument za sebe i ispitanika, improvizacija istraživačice i ispitanika na velikom udaraljkaškom instrumentu, glasovna improvizacija istraživačice i ispitanika, improvizacija istraživačice i ispitanika na melodiskom instrumentu (klavir ili metalofon), improvizacija istraživačice i ispitanika na puhačkom instrumentu (flauta), improvizacija istraživačice i ispitanika na udaraljkama pri sjedenju na stolici, istraživačica i ispitanik stvaraju priču improvizacijom, improvizacija istraživačice i ispitanika na malom udaraljkaškom instrumentu, dijeljenje udaraljki istraživačice i ispitanika, ispitanik svira instrument koji odabere dok istraživačica sluša, oproštajna pjesma (Oldfield, 2006).

Rezultati

Grafikon 1 prikazuje razvoj ispitanikovih podvještina izmjenjivanja-dijeljenja na 70 sati glazbene terapije u postotcima.

Grafikon 1.

- a) Ispitanik sluša istraživačicu dok govoriti: na prvom satu zabilježeno je 23,3 %, na desetom 36,6 % i na dvadesetom 53,3 %. Na tridesetom satu zabilježeno je 60 %, na četrdesetom 70 %, a na pedesetom ova sposobnost doseže vrijednost od 86,6 %. Dok je ova sposobnost zabilježena na 90 % na šezdesetom satu, na sedamdesetom doseže 100 %.
- b) Ispitanik govoriti kada treba: na prvom satu vrijednost iznosi 20 %, na desetom 33,3 %, na dvadesetom 40 % i na tridesetom je zabilježena vrijednost od 60 %. Na četrdesetom satu zabilježeno je 70 %, na pedesetom 86,6 % i na šezdesetom ta vrijednost ostaje stabilna. Na sedamdesetom satu vrijednost doseže 100 %.
- i) Ispitanik dijeli svoje zamisli kada ga zamoli istraživačica i o ispitaniku govoriti pozitivno ili negativno: na prvom satu zabilježena je vrijednost od 23,3 %, na desetom 33,3 %, na dvadesetom 43,3 % i na tridesetom 60 %. Na četrdesetom satu vrijednost je 66,6 %, na pedesetom doseže 90 %, a na šezdesetom pada na 86,6 % te na sedamdesetom doseže 100 %.
- i) Dok ispitanik svira instrument tijekom glazbenoga dijaloga, dozvoljava istraživačici da koristi instrument: vrijednost zabilježena na prvom satu iznosi 20 %, na desetom

33,3 %, na dvadesetom 46,6 % i na tridesetom 60 %. Na četrdesetom satu vrijednost je 66,6 % i na pedesetom 90 %. Na šezdesetom satu vrijednost pada na 86,6 %, dok na sedamdesetom doseže 100 %.

- j) Ispitanik dijeli instrument istraživačice koristeći ga dok istraživačica svira tijekom glazbenoga dijaloga: na prvom satu ta vrijednost iznosi 23,3 %, na desetom 30 %, na dvadesetom 43,3 % i na tridesetom je 63,3 %. Na četrdesetom satu zabilježena je vrijednost od 73,3 % i na pedesetom doseže 90 %. Na šezdesetom satu vrijednost pada na 86,6 %, a na sedamdesetom doseže 100 %.
- l) Tijekom glazbenoga dijaloga ispitanik dijeli pjesme s istraživačicom koristeći glas i instrumentalne improvizacije dok pjeva: na prvom satu ta vrijednost iznosi 20 %, na desetom 30 %, na dvadesetom 46,6 % i na tridesetom doseže 60 %. Na četrdesetom satu glazbene terapije vrijednost iznosi 73,3 %, na pedesetom 90 %, na šezdesetom ostaje stabilna i na sedamdesetom satu doseže 100 %.

Grafikon 2 prikazuje razvoj ispitanikove podyještine izražavanja osjećaja na 70 sati glazbene terapije u postotcima.

Grafikon 2.

- a) Sudionik verbalno izražava pozitivne osjećaje o sebi: na prvom satu vrijednost je 20 %, na desetom satu 40 % i na dvadesetom satu 50 %. Na tridesetom i četrdesetom satu vrijednost ostaje 50 %, a na pedesetom satu doseže 70 %. Na šezdesetom satu iznosi 83,3 % i na sedamdesetom doseže 100 %.
- c) Ispitanik verbalno izražava pozitivne osjećaje o svojoj obitelji i intimnom krugu: na prvom satu vrijednost je 23,3 %, na desetom 43,3 % i na dvadesetom 53,3 %. Na tridesetom i četrdesetom satu zabilježena je vrijednost od 53,3 % i na pedesetom 70 %. Na šezdesetom satu vrijednost iznosi 83,3 % i na sedamdesetom doseže 100 %.
- e) Ispitanik verbalno izražava pozitivne osjećaje o svojem učitelju i prijateljima: na prvom satu vrijednost je 20 %, na desetom 43,3 %, na dvadesetom satu 46,6 %, na tridesetom doseže 56,6 %. Na četrdesetom satu vrijednost pada na 50 %, na pedesetom iznosi 70 %, na šezdesetom je 90 % i na sedamdesetom satu doseže 100 %.
- g) Ispitanik govori prilagođavajući ton glasa: na prvom satu ta vrijednost je 23,3 %, na desetom 40 %, na dvadesetom 43,3 % i na tridesetom doseže 46,6 %. Na četrdesetom satu iznosi 50 %, na pedesetom 70 %, na šezdesetom 83,3 % i na sedamdesetom doseže 100 %.
- h) Ispitanik govori naglašavajući neke dijelove tonom glasa: na prvom satu ta vrijednost je 20 %, na desetom satu 43,3 %, na dvadesetom pada na 40 %. Na tridesetom satu doseže 50 % i na četrdesetom pada na 46,6 %. Na pedesetom satu doseže 66,6 %, na šezdesetom iznosi 90 % i na sedamdesetom doseže 100 %.
- i) Dok razgovara s istraživačicom, ispitanik koristi mimiku i geste prilagođene govoru: na prvom satu vrijednost je 23,3 %, na desetom je 40 %, na dvadesetom

doseže 53,3 % i na tridesetom pada na 50 %. Na četrdesetom satu ostaje stabilna, na pedesetom je 70 %, na šezdesetom iznosi 83,3 % i na sedamdesetom doseže 100 %.

i) U glazbenom dijalogu s istraživačicom, sudionik koristi ton glasa kako bi izrazio pozitivne i negativne osjećaje: na prvom satu vrijednost je 26,6 %, na desetom 40 %, na dvadesetom 43,3 % i na tridesetom doseže 50 %. Na četrdesetom satu vrijednost ostaje stabilna, na pedesetom satu doseže 73,3 %, na šezdesetom je 80 % i na sedamdesetom doseže 100 %.

j) U glazbenom dijalogu s istraživačicom, sudionik svira instrument koji je odabrao za izražavanje pozitivnih i negativnih osjećaja: na prvom satu ta je vrijednost 26,6 %, na desetom 40 %, na dvadesetom 43,3 % i na tridesetom doseže 53,3 %. Na četrdesetom satu ta vrijednost pada na 50 %, na pedesetom je 73,3 %, na šezdesetom je 83,3 % i na sedamdesetom doseže 100 %.

k) U glazbenom dijalogu s istraživačicom, ispitanik svira instrument koji je odabrao za izražavanje pozitivnih i negativnih osjećaja i izražava osjećaje tonom glasa: na prvom satu ta vrijednost je 20 %, na desetom 46,6 %, na dvadesetom ostaje stabilna. Na tridesetom satu doseže 56,6 %, na četrdesetom pada na 50 %, na pedesetom doseže 66,6 %, na šezdesetom iznosi 80 % i na sedamdesetom doseže 100 %.

Grafikon 3 prikazuje podvještinu izmjenjivanja-dijeljenja u 19 opservacija nastave u postotcima.

a) U učionici ispitanik sluša učitelja i/ili svoje prijatelje s kojima je u pozitivnom ili negativnom dijalu: na prvom satu ta vrijednost je 22,5 %, na četvrtom 35 %, na osmom 57,5 % i na dvanaestom doseže 80 %. Na šesnaestom satu doseže 100 % i ostaje stabilna do devetnaestoga sata.

b) Ispitanik govori kada treba tijekom pozitivnoga ili negativnoga dijaloga s učiteljem i/ili svojim prijateljima u učionici: na prvom satu ta je vrijednost 22,5 %, na četvrtom 35 %, na osmom 50 % i na dvanaestom doseže 75 %. Na šesnaestom satu je 95 % i na devetnaestom doseže 100 %.

c) U učionici, ispitanik čeka svoj red ako je netko od njegovih prijatelja usred aktivnosti s učiteljem: na prvom satu ta vrijednost je 25 %, na četvrtom 35 %, na osmom 45 % i na dvanaestom doseže 75 %. Na šesnaestom satu iznosi 95 %, a na devetnaestom doseže 100 %.

d) U učionici, ispitanik je uključen u aktivnost s učiteljem i/ili prijateljima samo kada treba biti: na prvom satu ta je vrijednost 22,5 %, na četvrtom 35 %, na osmom 50 % i na dvanaestom doseže 77,5 %. Na šesnaestom satu iznosi 95 % i na devetnaestom doseže 100 %.

k) Ispitanik dijeli svoje mjesto s prijateljima kada je to potrebno, uzimajući u obzir raspored sjedenja: na prvom satu ta je vrijednost 25 %, na četvrtom 35 %, na osmom 47,5 % i na dvanaestom doseže 70 %. Na šesnaestom satu ta vrijednost je 95 % i na devetnaestom doseže 100 %.

Grafikon 3.

Grafikon 4.

Grafikon 4 prikazuje podvještinu izražavanja osjećaja ispitanika na 19 sati nastave u postotku.

- a) Ispitanik verbalno izražava svoje pozitivne osjećaje u učionici: na prvom satu ta vrijednost iznosi 20 %, na četvrtom 22,5 %, na osmom 32,5 % i na dvanaestom doseže 65 %. Na šesnaestom satu iznosi 95 % i na devetnaestom doseže 100 %.
- c) Ispitanik verbalno izražava pozitivne i negativne osjećaje o učioničkoj okolini (npr. buci, prijelazu između aktivnosti itd.): na prvom satu ta vrijednost iznosi 20 %, na četvrtom satu 25 %, na osmom 32,5 % i na dvanaestom doseže 60 %. Na šesnaestom satu iznosi 92,5 % i na devetnaestom doseže 100 %.
- d) Ispitanik verbalno izražava pozitivne i negativne osjećaje o svojoj obitelji i učioničkoj okolini: na prvom satu ova vrijednost iznosi 20 %, na četvrtom 27,5 %, na osmom 40 % i na dvanaestom doseže 65 %. Na šesnaestom satu iznosi 95 % i na devetnaestom doseže 100 %.
- e) Ispitanik verbalno izražava pozitivne i negativne osjećaje o svojem učitelju i/ili prijateljima: na prvom satu ta je vrijednost 20 %, na četvrtom 22,5 %, na osmom 30 % i na dvanaestom doseže 55 %. Na šesnaestom satu iznosi 87,5 % i na devetnaestom doseže 100 %.
- f) Ispitanik verbalno izražava pozitivne i negativne osjećaje o svojoj učioničkoj aktivnosti: na prvom satu ta je vrijednost 22,5 %, na četvrtom 25 %, na osmom 35 % i na dvanaestom doseže 60 %. Na šesnaestom satu je 95 % i na devetnaestom doseže 100 %.
- i) Ispitanik govori u učionici prilagođavajući ton glasa: na prvom satu ta vrijednost iznosi 22,5 %, na četvrtom satu 27,5 %, na osmom 37,5 % i na dvanaestom doseže 65 %. Na šesnaestom satu iznosi 95 %, a na devetnaestom doseže 100 %.
- j) Ispitanik govori u učionici naglašavajući dijelove tonom glasa: na prvom satu ta je vrijednost 20 %, na četvrtom 25 %, na osmom 37,5 % i na dvanaestom 55 %. Na šesnaestom satu iznosi 92,5 % i na devetnaestom doseže 100 %.
- k) Prilikom govora u razredu, ispitanik koristi mimiku i geste prilagođene govoru: na prvom satu vrijednost iznosi 22,5 %, na četvrtom 27,5 %, na osmom 40 % i na dvanaestom doseže 65 %. Na šesnaestom satu iznosi 65 % i na devetnaestom doseže 100 %.

Rasprava i zaključak

Ova je studija pokazala poboljšanje vještina izmjenjivanja-dijeljenja i izražavanja osjećaja ispitanika tijekom sati glazbene terapije i opservacija nastave.

U povezanoj literaturi ne postoji specifično istraživanje o učinku glazbene terapije na razvoj vještine izmjenjivanja-dijeljenja djece s ASD-om. Ipak, unatoč postojanju

studija koje istražuju vještina izmjenjivanja djece s ASD-om, broj istraživanja koja proučavaju vještina dijeljenja je ograničen.

Rezultati studija slučajeva o učincima glazbene terapije na socijalnu interakciju i emocionalnu komunikaciju djece s ASD-om govore u prilog njezinom pozitivnom utjecaju na jezične vještine, verbalnu i neverbalnu komunikaciju, sudjelovanje u igrama i zajedničko igranje i izmjenjivanje. Štoviše, naglašeno je da glazbena terapija također podržava razvoj vještine slušanja i formiranja posljedičnoga odgovora ove djece (Yilmaz i sur., 2014).

Saville (2007) tvrdi da glazbena terapija podržava vještina izmjenjivanja dijaloga s terapeutom kroz instrumentalne improvizacije u studijama djece s ASD-om.

Raglio i suradnici (2011) navode da proces improvizacije u zajedničkom stvaranju glazbe pozitivno utječe na dijeljenje, izmjenjivanje i međusobnu interakciju stvarajući odnos između pojedinca s ASD-om i terapeuta.

Porte (2014) je proveo kvalitativno istraživanje koristeći metodu mikroanalize naziva *Interakcija s djetetom sa sindromom autističnoga spektra*. Rezultati istraživanja pokazuju da su instrumenti i improvizirano muziciranje razvili sposobnosti dijeljenja osjećaja i misli ispitanika korištenjem tona glasa, mimike i gesta u glazbenoj terapiji.

Ghasemtabar i suradnici (2015) navode da glazbena terapija promovira razvoj vještina izmjenjivanja i dijeljenja stvarajući glazbeno interaktivnu atmosferu kod djece s ASD-om. S obzirom na uočenu sklonost ove djece jednoobraznosti, također naglašavaju smanjenju pojavnosti repetitivnih obrazaca.

Nekoliko je studija o utjecaju glazbene terapije na razvoj sposobnosti izražavanja osjećaja djece s ASD-om.

Tomlinson (2010) je nastojala proučiti proces korištenja glazbene terapije u specijalnim školama u svojem istraživanju provedenom na djetetu s ASD-om. Koristila je nastavu glazbene terapije koju je snimila zajedno s kliničkim izvještajima koje je pisala kako bi pokazala glazbeni razvoj. Rezultat istraživanja pokazuje da je dijete s ASD-om bolje izražavalo razne vlastite osjećaje sviranjem instrumenta.

Pavlicevic i Ans dell (2004) tvrde da se glazbena terapija može koristiti kao obrazovni i terapeutski alat u radu s djecom s ASD-om. Oni naglašavaju da glazbena terapije podržava razvoj osvještenosti djece s ASD-om, njihov samozričaj, osjećaj za estetiku, motoričke vještine, jezične i socijalne vještine.

Kada promatramo studije o učinku glazbene terapije na razvoj vještine izmjenjivanja u učioničkoj okolini djece s ASD-om, navodi se da je grupna glazbena terapija prilagođena razrednoj okolini i da se instrumenti dijele, tj. cirkuliraju među članovima skupine i dok jedni članovi skupine sviraju solo, drugi čekaju, što razvija vještina izmjenjivanja i dijeljenja instrumenata. Dodatno, naglašava se kako izmjena i dijeljenje istoga bubenja između dvoje djece koja ga sviraju podržava razvoj ove vještine (Simpson, 2013).

Barrow-Moore (2007) proveo je istraživanje kako bi utvrdio hoće li upotreba glazbe tijekom nastave u učioničkoj okolini povećati reakcije djece s ASD-om. Studija se fokusirala na govorenje, izmjenjivanje-dijeljenje i kontakt očima petoro djece u dobi

od 5 do 7 godina s dijagnozom ASD-a. U ovoj studiji ukupno je provedeno 6 sati. Reakcije su bilježili istraživač i razredni asistent. Na kraju istraživanja otkriveno je da su djeca s ASD-om pokazala višu razinu osvještenosti, interesa i pozitivnih reakcija u učioničkoj okolini u kojoj se koristila glazbena terapija u usporedbi s onom u kojoj se koriste tradicionalne metode poučavanja.

Caltabiano (2010) je nastojao istražiti sposobnosti pažnje, imitacije i vještina izmjenjivanja djece s ASD-om u svojem istraživanju nazvanom *Učinci glazbene terapije na socijalna ponašanja djece s poremećajem spektra autizma u kontekstu integracijske učionice na otvorenom*. Četvero djece s ASD-om u dobi od 9 do 12 godina sudjelovalo je u istraživanju u kojem su proučavana njihova ponašanja u oboje glazbenoj terapiji i integriranoj nastavi korištenjem miješanih metoda. Snimljen je video i ocijenjen upotrebom evaluacijskih skala. Također se mogu zamijetiti i drugi faktori; poglavito su uočeni i ispitivani vršnjačko podučavanje, propitivanje, motiviranje, modeliranje i bliskost koji su sačinjavali dvije široke kategorije - učiteljsko- i učeničko-posredovani pristup. Rezultati istraživanja pokazuju da oba pristupa poboljšavaju sposobnost pažnje, imitacije i vještina izmjenjivanja stvaranjem pozitivne okoline za učenje u kojoj se djeci s ASD-om pruža prilika za stjecanje iskustava integracije.

Broj istraživanja koja istražuju učinak glazbene terapije na razvoj sposobnosti izražavanja osjećaja djece s ASD-om u učioničkoj okolini je ograničen.

O'Connor (2013) je istraživala utjecaj glazbene terapije u školskom programu na razvoj interakcije djece s ASD-om u studiji nazvanoj *Igralište: podržavanje interakcija djece s ASD-om kroz skupine glazbene terapije u studijama slučaja posebnoga obrazovanja*. Eksperiment je analiziran u obliku kvalitativne studije kroz kliničke zapise, bilješke supervizora, sastanke osoblja, refleksivne istraživačke dnevničkih i trajao je preko deset mjeseci. Desetero djece dobi pet do deset godina sudjelovalo je u dva komplementarna oblika grupne glazbene terapije primijenjene isti dan i s istom djecom. Jedna skupina je jutarnja terapijska skupina, dok je drugi oblik glazbene terapije odražavan u slobodnom obliku na kraju dana. Rezultati istraživanja pokazali su da jutarnja glazbena terapija razvija emocionalnu osjetljivost, osjećaj smirenosti, promovira nova iskustva, prilike za strukturiranu interakciju i samozričaj djece s ASD-om. Rezultati također pokazuju da slobodan oblik glazbene terapije podržava uspostavljanje interakcija i ekspresivniju komunikaciju djece s ASD-om.

Mendelson i suradnici (2016) proveli su istraživanje u kojem je jedna skupina ispitanika sudjelovala u glazbenoj terapiji petnaest tjedana, a druga sedam tjedana. Naziv primijenjene glazbene terapije je *Zajednički glasovi*. U istraživanju se ispitivao utjecaj glazbene terapije na razvoj komunikacijskih vještina petero djece s ASD-om i 32 mentalno retardirane djece u posebnim obrazovnim skupinama u četiri javne škole. Tri pjesme su napisane i korištene svaki dan s ciljem demonstracije učinka glazbene terapije na verbalno reagiranje u učioničkoj okolini, kroz razvoj socijalnih vještina izmjenjivanja i izražavanja osjećaja. Rezultati ovoga istraživanja pokazuju da je pozitivan učinak glazbene terapije na verbalno reagiranje bio uočljiviji na ispitanicima

koji su sudjelovali u istraživanju petnaest tjedana, pokazujući da su oni bili učinkoviti u izmjenjivanju i samoizražavanju te da je kroz pjesme povećana njihova verbalna osjetljivost.

Istraživanja o kojima izvještava literatura svjedoče da glazbena terapija prilagođena učioničkoj okolini potiče razvoj socijalne vještine djece s ASD-om izražavanja osjećaja, u prilog čemu govore i rezultati ovoga istraživanja. Štoviše, rezultati ovoga istraživanja govore ne samo da glazbena terapija pozitivno utječe na razvoj obje ispitivane socijalne vještine ispitanika u učioničkoj okolini, već da prakticiranje same glazbene terapije izvan učioničke okoline također podržava razvoj socijalnih vještina djece s ASD-om.

U budućnosti možemo preporučiti istraživanja učinka glazbene terapije na socijalne vještine djece s ASD-om i drugim dijagnozama, razlike između toga učinka u učioničkoj i izvanučioničkoj okolini stvaranjem kontrolnih i eksperimentalnih skupina te njihovom usporedbom. Također, buduća istraživanja trebala bi ispitati poglede i stavove učitelja posebnoga obrazovanja, roditelja i članova obitelji o učincima glazbene terapije na socijalne vještine djece s ASD-om i drugim dijagnozama.