

The Effects of Expressive Arts Therapy on Children with Autism Spectrum Disorder

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Abstract

Expressive arts therapy is a combination of psychology and the creative arts in a way to facilitate the process of personal growth. This method of counseling could be beneficial for children with autism spectrum disorder because many times these children may experience difficulties with speech and interpersonal skills. The purpose of this review was to determine if expressive arts therapy has an effect on children with autism spectrum disorder. A total of 11 articles were chosen for review, both quantitative and qualitative studies. The results of six articles showed small positive effects of expressive arts therapy concerning social skills, symptom severity, and communication development. The remaining articles showed no effects of expressive arts therapy. The findings of these articles cannot completely support the research question without further statistically significant research.

Keywords: autism spectrum disorder, expressive arts therapy, effects

The Effects of Expressive Arts Therapy on Children with Autism Spectrum Disorder

Expressive arts therapy is a multimodal approach to combining psychology and the creative arts. This type of therapy incorporates a variety of art forms, such as drama, dance, music, painting, and play. According to the International Expressive Arts Therapy Association, expressive arts therapy is commonly used to assist in processes for personal and community growth (2017). Expressive arts therapy uses techniques that involve verbal and nonverbal communication, to assist with different forms of expression. According to the DSM-5, one must meet certain criteria to receive a diagnosis of autism spectrum disorder: "persistent deficits in social communication and social interactions across multiple contexts and restricted, repetitive patterns of behavior, interests, or activities" (2013). Children with autism spectrum disorder (ASD) may experience difficulties formulating communication patterns, which can affect how one may externalize their feelings and emotions. Social interaction and competence often suffer because of these difficulties with communication.

With the assistance of expressive arts therapy, one would assume children with ASD could communicate and express themselves in nontraditional ways. Expressive arts therapy could provide a child with the ability to communicate through music, drama, and art. According to Bieleninik, music therapy may facilitate the development of skills in areas that are typically affected by ASD (2021). This review attempts to answer the primary question: What are the effects of expressive arts therapy on children with ASD? Following this, a secondary research question is how do the various types (art, music, and theater) relate or differ from one another?

Methods

The literature review process involved selecting peer-reviewed articles using OneSearch from Milligan University. The search returned approximately 150 articles published from 2008

to 2021. With these results, 11 articles were chosen that measured the effectiveness of these types of therapy on children with ASD. Out of the 11 articles chosen, two were qualitative, and nine were quantitative. The two qualitative studies involved one case study and one ethnography. These studies used observations and immersion into a special education classroom to observe students and their interactions. The quantitative studies involved three randomized control trials (RCTs) and six quasi-experimental. Quasi-experimental studies use a design to determine a cause-and-effect relationship between variables, but lacked random assignments of participants whereas the three studies with RCTs randomly assigned participants into groups. See Appendix for a brief description of each of the 11 studies.

Table Description

Table 1 contains the 11 research articles chosen to either support or reject the proposed research question. The results of each article are included in the table to compare similarities between studies. Initially, there were 12 studies included on the table, but one was removed because there was a lack of relevance to the research being conducted. The studies that remain either show little or no effects of music therapy on children with ASD.

Table 1*Effects of Expressive Arts Therapy on Children with Autism Spectrum Disorder*

References	Study Participants	Measurable Outcome	Type of Intervention & Duration	# of Sessions	Outcome/Results
Bieleninik, L., et al. (2021).	364 Children in 9 countries, children split into two groups: 90 with H.I.M.T.* & 92 L.I.M.T.*	Differences in effects of music therapy intensities on children with ASD, how social communication skills are affected	Improvisational M.T*, H.I.M.T. and L.I.M.T. Interventions, 30 minute 1-on-1 sessions with each child in outpatient settings	1-3 times a week over 5 months	Music therapy did not show significant improvement with symptom severity scores compared to enhanced standard of care*. No significant difference between high or low intensity M.T.
Brown, L. S. (2017).	30 Neurotypical* children & 20 high functioning* children	Influence of music therapy on children with ASD and facial emotion recognition	Stimulus Presentation, Photography (emotion recognition), 5-minute sessions repeated 4 times	4 trials on emotion recognition, 1 min. viewing a photo while listening to varying types of music, sessions 5 minutes each	Neurotypical children's ratings showed no difference compared to high functioning groups of the same gender, no significant main effects for each group
Corbett, B., et al. (2016).	30 participants with ASD	Effects of art therapy on social competence	Theater-based intervention, randomized experiment with pre-testing	10 - 4 hour sessions	Theater-based interventions showed improvements in core areas of social competence. The experimental group and waitlist group's results compared to show large effect sizes for 6 out of 8 of the measured groups.

References	Study Participants	Measurable Outcome	Type of Intervention & Duration	# of Sessions	Outcome/Results
Drossinou-Korea, M., & Fragkouli, A. (2016).	3 students with ASD	Analyzing interpersonal relationships and interactions involved in M.T. activities	Video analysis through systematic observation* and self-observation	An individual session once a week for 16 weeks.	Components of music provide a channel for communication and elaborating unconscious drives based on the opinions and observations of the 3 participants
Epp KM. (2008).	66 children, split into groups of 6	Improvement in social skills through group and/or individual art therapy	Pre- and post-testing performed on each group. Social skills rating system, questionnaires identifying social skills (using Likert-type scale)	Pre-test and post-test administered 7 months apart, group and/or individual sessions were 5 days a week after-school	Scores from the test administered showed statistical significance in assertion skills and problematic behaviors. No statistical significance shown in 4 out of 7 areas tested. $d = .17$ (social skills scores), $d = .21$ (Problem behaviors scores)
Geretsegger M, Elefant C, Mössler KA, Gold C. (2014).	165 participants observed throughout 10 studies	Examine brief music therapy intervention and its short- and medium-term effects	Randomized Control Trials and Controlled Clinical Trials, variety of M.T. interventions with a professional music therapist performed throughout 10 studies	Daily for one week over 7 months	M.T. was superior to placebo intervention when examining verbal $d = .33$ or gestural $d = .57$ communication skills. $d = 1.06$ (social interaction)

References	Study Participants	Measurable Outcome	Type of Intervention & Duration	# of Sessions	Outcome/Results
Koo, J., & Thomas, E. (2019).	18 children with ASD in India, split into two groups: 9 in control group, 9 in experimental group	Effects of art therapy on development	Randomized group assignments, pretest and posttest used, art therapy intervention introduced to experimental group	8 – 30 minute sessions over 10 weeks	Art therapy was linked to improvement in cognitive, social, and motor skills
Mössler, K., et al. (2019).	48 children from 7 countries, 81% of participants male	Effects of high or low intensity M.T., how the therapeutic relationship affects outcomes in expressive therapy	RCT, physical & emotional experimental and instrumental expression scales, 30 min. videotaped sessions observing effects	L.I.M.T – once a week, H.I.M.T – 3 times a week, both over 3 months span	The therapeutic relationship predicted generalized clinical changes of symptom severity with ASD. Findings suggest that music facilitates the creation of meaningful interactions and an increase in communicative abilities. The therapeutic relationship is not necessary but can be beneficial.
Richard, D. A., More, W., & Joy, S. P. (2015).	19 children with ASD	Emotion recognition	Build a face (BAF) (emotion recognition), pre-test and post-test administered	2 tests administered at beginning and end of study, art therapy session between each test	There was no difference found between the control group and treatment group

References	Study Participants	Measurable Outcome	Type of Intervention & Duration	# of Sessions	Outcome/Results
Wan-Chi Chou, Gabrielle T. Lee, & Hua Feng. (2016).	2 children with ASD (both male)	Social skills	Behavioral tactics incorporated with art therapy interventions	17 sessions – 30 minutes	Program showed effectiveness in improving all 3 areas monitored: verbal, eye contact, and presentation
Zorba, R. S., Akçamete, G., & Özcan, D. (2020).	1 participant – 8 yr old child	Turn-taking skills	Observations and videoed sessions, mixed method design, lessons conducted to determine effects on taking turn-sharing skill	19 classroom observations (40 minutes each), 70 videoed sessions (30 minutes each) – over 1 week	Child showed 100% effectiveness to following each lesson conducted at the end of each observation/session

Note: H.I.M.T = High-Intensity Music Therapy, L.I.M.T. = Low-Intensity Music Therapy, M.T. = Music Therapy, Standard of Care = routine care available for children, Neurotypical = not displaying or characterized by autistic or other neurologically atypical patterns of thought or behavior, High-functioning = children with ASD who typically can read, write, speak, and manage basic life skills without significant assistance, ASD = Autism Spectrum Disorder, Systematic Observation = Observations of specified events that are recorded to ensure similar result

Results

The search identified 11 empirical studies related to the primary research question. Based on the research findings, six out of 11 showed small positive effects of expressive arts on children with ASD. Four out of 11 studies showed no improvement in children from expressive arts therapy. These four studies used research designs of quasi-experimental and one was an ethnography study. Three of the 11 research studies used randomized control trials, which minimized threats to validity. One randomized control trial by Koo and Thomas found results that linked art therapy to improvement in cognitive, social, and motor skills (2019). This study used 18 children with ASD who were randomly assigned to experimental and control groups, and administered pre-tests and post-tests. The ANOVA results show partial $n^2 = .40$ which would show a medium effect size for this study. A quasi-experimental study using 30 participants found that theater-based interventions showed improvement in core areas of social competence (Corbett et al., 2016). The results of this study, which measured social ability, showed a moderate to large effect size, $d = .52$.

Two of the studies chosen were qualitative studies that involved observations and video analysis. The first study observed three students with ASD to analyze interpersonal relationships, which led to positive communication channels because of music components (Drossinou-Korea & Fragkouli, 2016). The second qualitative study was considered a case study because it observed one child through a series of sessions. Zorba used a mixed-method design that involved observation and documented examination techniques. Inter-rater reliability was established to determine an objective view that would be used when documenting the progress of the study. The results showed 100% effectiveness of the child following lessons conducted alongside music therapy sessions (2020).

Concerning the secondary research question, “how do the various types (art, music & theater) relate or differ from one another?”, the articles chosen did not compare any of the various types with one another. Four of the articles’ researchers explained that expressive arts, in general, are not well tested because of the difficulties associated with control of the treatments. The various types of expressive arts individually are typically used alongside other types of therapy methods and interventions. Four of the six studies with positive effects were art therapy, two were music therapy, and zero were drama/theater therapy. Given that all of these effects were small, and that the studies find small improvement for a variety of expressive arts, there is no evidence yet that any particular type of expressive arts is superior to any other. While the effects were small, parents of child participants reported the children expressed enjoyment in the types of therapy.

Strengths and Limitations

Many of the studies were limited by small sample sizes that affected the significance of the results. Other limitations include lengthy duration of studies (8 months to 2 years), gender imbalance (male participants chosen more frequently than female), lack of variety in sessions, no control group, and inter-rater reliability of measured outcomes. These limitations affected the outcomes of each study, especially inter-rater reliability and the lack of control groups. The durations of five of the studies were lengthy, which caused participant fatigue, and in one study, caused early termination of participants. The long durations appeared to be because of the short time frame researchers had to conduct studies (Richard, 2015). The small sample sizes were the largest limitations of five out of 11 articles because the sample sizes were under 30 participants.

Three of the 11 articles used randomized controlled trials, which is a gold-standard necessary to establish unbiased results. Three additional studies were able to establish inter-rater

reliability that created an environment where the researchers each agreed to the purpose and evaluation expectations. A strength of six of the studies was that pre-and post-testing were administered to participants. This improved how the results were monitored and evaluated because of the beginning baseline of many clients.

For future research, there should be an increase in sample sizes to ensure significant evidence. Randomization of group assignments should also be necessary for future research. Epp explains that expressive arts therapy forces children to become less literal and concrete in their self-expression, but when analyzing the effects, triangulation should be used to continue this abstract expression (2008).

Conclusion

The purpose of this review was to determine the effectiveness of expressive arts therapy in children with ASD. The secondary question was to determine if there were any differences between the various types of expressive arts therapy. The results of this review support the need for various types of therapeutic interventions for, specifically, children with ASD. The interventions researched in this review aid and support the development of communication and social skills, but do not have sufficient evidence for expressive arts therapy to become an evidence-based practice without further research. The research relies heavily on observational studies, which are less reliable without strong inter-rater reliability and larger sample sizes. The qualitative nature of the studies could result in research bias. Without further research, the current results do not show effectiveness in expressive arts therapy alone. The results between the various types of expressive arts therapy were similar, but there was no discernible pattern of one method being superior to another. Future research should focus on quantitative designs that measure differences in expressive art types, use validated assessment tools, randomized groups,

including a control group, and additional analysis on differences between low-and high-functioning children with ASD.

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- Epp KM. (2008). Outcome-based evaluation of a social skills program using art therapy and group therapy for children on the autism spectrum. *Children & Schools*, *30*(1), 27–36.

DOI: 10.1093/cs/30.1.27

Geretsegger M, Elefant C, Mössler KA, Gold C. (2014). Music therapy for people with autism spectrum disorder. *Cochrane Database of Systematic Reviews*, 6. DOI: 10.1002/14651858.CD004381.pub3..

Koo, J., & Thomas, E. (2019). Art therapy for children with autism spectrum disorder in india. *Art Therapy: Journal of the American Art Therapy Association*, 36(4), 209–214. DOI: 10.1080/07421656.2019.1644755

Mössler, K., Gold, C., Aßmus, J., Schumacher, K., Calvet, C., Reimer, S., Iversen, G., & Schmid, W. (2019). The therapeutic relationship as predictor of change in music therapy with young children with autism spectrum disorder. *Journal of Autism & Developmental Disorders*, 49(7), 2795–2809. DOI: 10.1007/s10803-017-3306-y

Richard, D. A., More, W., & Joy, S. P. (2015). Recognizing emotions: Testing an intervention for children with autism spectrum disorders. *Art Therapy: Journal of the American Art Therapy Association*, 32(1), 13–19. DOI: 10.1080/07421656.2014.994163

Wan-Chi Chou, Gabrielle T. Lee, & Hua Feng. (2016). Use of a behavioral art program to improve social skills of two children with autism spectrum disorders. *Education and Training in Autism and Developmental Disabilities*, 51(2), 195–210. <http://www.jstor.org/stable/24827547>.

Zorba, R. S., Akçamete, G., & Özcan, D. (2020). The analysis of the music therapy program's effect on taking turn-sharing skills and expressing feelings of children with autism spectrum disorder. (English). *Croatian Journal Educational / Hrvatski Casopis Za Odgoj I Obrazovanje*, 22(2), 631–656. DOI: 10.15516/cje.v22i2.3405.

Appendix

Annotated Bibliography

Bieleninik, Ł., Geretsegger, M., Mössler, K., Assmus, J., Thompson, G., Gattino, G., Elefant, C., Gottfried, T., Iglizzi, R., Muratori, F., Suvini, F., Kim, J., Crawford, M. J., Odell-Miller, H., Oldfield, A., Casey, Ó., Finnemann, J., Carpena, J., Park, A.-L., ... Gold, C. (2021). Effects of improvisational music therapy vs enhanced standard care on symptom severity among children with autism spectrum disorder: The TIME-A randomized clinical trial: Correction. *JAMA: Journal of the American Medical Association*, 325(14), 1473. DOI: 10.1001/jama.2017.9478

This study compared the effects of music therapy with enhanced standard care on children with autism spectrum disorder. Enhanced standard of care was described as being the routine care available for children. 364 children were participating in this study, and of this group, 90 of the children were assigned to a high-intensity group and 92 were assigned to a low-intensity group. High-intensity groups involved attendance to rigorous music therapy sessions that involved additional techniques compared to the low-intensity group. Each group had 30 minutes of 1-on-1 sessions that monitored their symptom severity over the course of 5 months. They found that music therapy did not result in significant improvement in symptom scores compared with enhanced standard care. There was also no significant difference between low and high-intensity music therapy sessions. The study used 2 raters which determined results from randomly given segments from prerecorded sessions. The size and blinding to their primary outcome (effects of the different cares on social communication skills) were strengths of this study. The researchers used pragmatic trials which resembled real-world data but

choosing this method made analyzing music therapy difficult to completely control. This study also had early termination from participants because of the duration of the study and the interventions. There was also a secondary outcome that was not blinded or exploratory.

Brown, L. S. (2017). The influence of music on facial emotion recognition in children with autism spectrum disorder and neurotypical children. *Journal of Music Therapy, 54(1)*, 55–79. DOI: 10.1093/jmt/thw017

Brown investigates the influence of music therapy on facial emotion recognition and how children with ASD can label emotions. There were 30 neurotypical children and 20 high-functioning children used as participants for this research. The researchers used photographs to examine responses to emotion then introduced musical stimuli to identify any reactions. The results found that music does affect facial emotion recognition because as children listened to certain music, there was no difference between the two groups as they both were more likely to name related emotions or display that emotion from themselves. This study used random assignment when placing students into groups based on the criteria set for each group. A weakness of this study was the method of analysis, the sample size, and the lack of random selection because all the children were connected within the same class and assigned their normal teacher/counselor to work with during the study.

Corbett, B. A., Key, A. P., Qualls, L., Fecteau, S., Newsom, C., Coke, C., & Yoder, P. (2016). Improvement in social competence using a randomized trial of a theatre intervention for children with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 46(2)*, 658–672. DOI: 10.1007/s10803-015-2600-9

The goal of this research was to understand and find evidence for the effects that theatrical art therapy has on the social competence of children with autism spectrum disorder. This study used 30 participants, which were randomized into an experimental group or a control group. Each group was given pre-testing before any treatment started. The treatment group was then delivered 10 4-hour sessions to measure different levels of social competencies concerning theatre techniques and activities. Once these sessions were complete, the control group received a theater intervention in a 10-session summer camp model. Researchers found that theatre-based intervention improved core areas of the treatment group's social competencies. The control group was not assessed after the intervention was provided, so their results were not included in the study. This study had low resources because of cost constraints that affected what practices researchers could use with the treatment group. The treatment group was given follow-up testing, but because the control group was not assessed, these results were compared within the treatment group. This research relates to my research question because there are results linking to expressive arts therapy affecting children with autism spectrum disorder in multiple areas of their lives such as social competence.

Drossinou-Korea, M., & Fragkouli, A. (2016). Emotional readiness and music therapeutic activities. *Journal of Research in Special Educational Needs*, 16, 440–444. DOI: 10.1111/1471-3802.12305

The goal of this study was to examine the expression of children with autism spectrum disorder through verbal and nonverbal music therapy. The researchers studied three children who attended music therapy sessions once a week for 16 weeks that involved various types of musical techniques. Each child was given the same music

techniques throughout the sessions. Researchers were able to analyze the development of interpersonal relationships with the therapist as well as interactions through music. These sessions were videotaped then compared with one another to determine differences between various techniques and the three children's responses. A strength of this study was the use of multiple types of music therapy techniques. The researchers also focused on each student's differences with learning and expression which added to how therapy can affect each person differently. This study shows a weakness of having a small sample size as well as only using methods of videotaping with no other progress tracking. There was little statistical evidence provided with this research, so the results appear less scientifically credible because of opinion and perception of the student's effects.

Epp KM. (2008). Outcome-based evaluation of a social skills program using art therapy and group therapy for children on the autism spectrum. *Children & Schools, 30(1)*, 27–36.
DOI: 10.1093/cs/30.1.27

The purpose of this research was to determine how group therapy and art therapy can improve social skills among children with autism. There were around 66 participants involved in this study which were assigned to 11 groups of 6 children each. Each group was involved in individual and/or group therapy 5 days a week after-school for 7 months. This research study used small sample sizes which were convenient to selection as well as no control group or randomization used. A limitation of this study is that questionnaires were given to parents and teachers which were difficult to complete and provided limited results because of the sample size. This study used pre- and post-testing to measure social skills which showed positive effects on how the results were conducted. The results of this research showed that there was statistical evidence based on the

questionnaires that showed assertive social skills were improved in the children studied. There were activities used that were verbal and nonverbal to create inclusion for the participants. The results linked the use of group activities and individual art therapy to possible improvements in children's lives.

Geretsegger M, Elefant C, Mössler KA, Gold C. (2014). Music therapy for people with autism spectrum disorder. *Cochrane Database of Systematic Reviews*, 6. DOI: 10.1002/14651858.CD004381.pub3.

This meta-analysis concerning the effects of music therapy on people with autism spectrum disorder is based on the original published research in 2006. There were 10 studies conducted among 165 participants using various types of music therapy treatments. Participants were randomly assigned into groups: placebo, no treatment, and standard care for autism spectrum disorder. Participants were then examined through brief music therapy interventions which occurred daily for one week. Each of the 10 studies used the same group assignments but often participants were not blind to what treatment they were being provided. The results of this study showed that music therapy has effects on the participants compared to the placebo treatments in verbal and gestural communication skills. This study's strengths were that it used random-controlled trials as well as continuous testing on participants to monitor effects and progress. A weakness of this study was the small sample size in each study which varied between 6-20 participants. The settings of the treatment were also not inconsistent places which could affect the bias on the participants. This study overall showed statistical results that tracked progress or lack of progress if any.

Koo, J., & Thomas, E. (2019). Art therapy for children with autism spectrum disorder in india. *Art Therapy: Journal of the American Art Therapy Association, 36(4)*, 209–214. DOI: 10.1080/07421656.2019.1644755

Koo and Thomas researched the effects of art therapy on children with autism spectrum disorder and how their social skills can change or modify. There were 18 children selected to participate in this study of which 9 were assigned to a control group and 9 assigned to the art therapy intervention group. The results of this study found that art therapy can affect and improve a child's cognitive, social, and motor skills. Limitations to this study were the small sample size used and the lack of a follow-up test to check in with any progress or additional effects. This study did well with the use of a control group and the administration of a pre- and post-test. There was a random assignment of the participants in the group which did eliminate areas of bias from the results.

Mössler, K., Gold, C., Abmus, J., Schumacher, K., Calvet, C., Reimer, S., Iversen, G., & Schmid, W. (2019). The therapeutic relationship as predictor of change in music therapy with young children with autism spectrum disorder. *Journal of Autism & Developmental Disorders, 49(7)*, 2795–2809. DOI: 10.1007/s10803-017-3306-y

The goal of this study was to determine how the therapeutic relationship can affect the reception of music therapy and its effects. 48 children were participating in this study. The participants were divided into groups which were delivered either low or high-intensity music therapy. Low-intensity music therapy involved participants to attend once a week while high-intensity was three times a week. The study revealed that music can relate to students and the therapist regardless of what the therapeutic relationship is. The

therapeutic relationship predicted generalized clinical changes of any symptom severity for Autism Spectrum Disorder, but this did not affect how well the music therapy affected the children. This study used randomized assigned participants to experimental groups, but there were no control groups used. A limitation to this study is that the independent variable was not manipulated experimentally. The assessment tools were also mainly for nonverbal children with ASD, which did not identify with the majority of the participants.

Richard, D. A., More, W., & Joy, S. P. (2015). Recognizing emotions: Testing an intervention for children with autism spectrum disorders. *Art Therapy: Journal of the American Art Therapy Association*, 32(1), 13–19. DOI: 10.1080/07421656.2014.994163

The researchers for this study developed a goal of understanding the effects of an art therapy intervention called Build-A-Face and comparing this to other types of art therapy interventions. This study selected 19 participants which were assigned to control a treatment group. A pretest and posttest were administered to each participant to determine if there was any progress from the intervention. The researchers concluded that there was no difference between the control and treatment groups, but this does not mean that Build-A-Face is not helpful. This intervention did not show significant evidence of effects, but added to other interventions, progress could be made. Weaknesses for this study were the use of a small sample size, uneven gender distribution in groups, and too many emotions that were being observed with the Build-A-Face interventions. Future research suggestions were given to focus on only a couple of different emotions and compare them with another intervention to determine if effects are resulting from the Build-A-Face intervention.

Wan-Chi Chou, Gabrielle T. Lee, & Hua Feng. (2016). Use of a behavioral art program to improve social skills of two children with autism spectrum disorders. *Education and Training in Autism and Developmental Disabilities, 51(2)*, 195–210. <http://www.jstor.org/stable/24827547>

The goal of this research was to investigate the effects of a behavioral art program that uses different art therapy interventions as well as behavioral interventions. This study used 2 children with Autism Spectrum Disorder and conducted behavioral tactics and art therapy techniques to monitor their social skills. The program showed effectiveness with both children in improving in 3 areas: verbal, eye contact, and presentation. This study only used male participants which could be biased on gender-related results. A strength of this study was the use of measuring multiple areas of social skills through art therapy. This article analyzed how art therapy can be connected with other methods of therapy to accommodate clients and their situations.

Zorba, R. S., Akçamete, G., & Özcan, D. (2020). The analysis of the music therapy program's effect on taking turn-sharing skills and expressing feelings of children with autism spectrum disorder. (English). *Croatian Journal Educational / Hrvatski Casopis Za Odgoj I Obrazovanje, 22(2)*, 631–656. DOI: 10.15516/cje.v22i2.3405

The research for this study was centered around a specific effect that music therapy has on a child with autism spectrum disorder. There was only one child being observed throughout 19 classroom observations and 70 video-recorded sessions. The goal of this research was to determine if music therapy has effects on turn-sharing skills and how that influences social skills and feeling expression. At the beginning of the observations and sessions, the child following directions and showing the development of

the skill of taking-turns around 20% of the time. The child showed 100% when asked to follow any directions by the end of the 19 classroom observations and the 70 video sessions. This study had many weaknesses that I felt limited the reported results. There was only one participant which only explains how one child reacts to music therapy and does not explain how others may. All of the lessons conducted ended with 100% by the end of the last session conducted which seems to express some bias. After 70 sessions of following the same instructions, the child was able to follow each direct 100%. The strengths of this study were the use of observations and research in different settings and environments rather than taking results from one setting.