

# Music Therapy With Children With Autism Spectrum Disorders Requiring AAC: Focus Group Results

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## INTRODUCTION

- 1 in 68 American children are identified on the autism spectrum (Blumberg, S. J., et al., 2013)
  - 10x increase in the last 40 years.
- ASD's are still considered incurable, but there are many different approaches to help improve these symptoms, especially communication skills in children. One of those approaches is through the use of music.
- Lack of research linking the nature of musical activities with communication benefits for children with ASD who can't talk.

## OBJECTIVE

What is the impact of music on improving communication skills of non-speaking children with autism spectrum disorders (ASD)? To be more specific, this investigation aims to answer the following:

1. What are the benefits and challenges of using music to help non-speaking children with ASD meet their communication goals?
2. What are the roles that augmentative and alternative communication (AAC) systems have played in music therapy?
3. What advice can be given to speech-language pathologists to help them incorporate music into therapeutic sessions?

## METHOD

### Recruitment

- Music Therapists were contacted through email by using the American Music Therapy Association contact list.
- 10 Music Therapists who met the inclusion criteria were invited to participate in the focus group.
  - Board Certified
  - 5+ years experience
  - Currently working with a non-speaking child with ASD
  - High competence of working with AAC

### Procedures

- Focus group conducted via online discussion board (phpBB).
- Each week a question was posted for the participants to respond to for six weeks, totaling six questions. Discussion among the participants was encouraged.
- The responses were transferred into an Excel document, broken down into thought units, and then analyzed (McNaughton et al., 2002).

## DEMOGRAPHICS

Table 1

Demographic Information of Participants

Participant	Lynn	Sue	Marie	Nicole	Jack	Jennifer	Liz	Sarah	Emily	Amber
Highest level of education completed	Bachelor's	Bachelor's	Bachelor's	Master's	Master's	Bachelor's	Bachelor's	Bachelor's	Bachelor's	Bachelor's
Number of children with ASD that participants have worked with	200	15	50	35	100+	15	100+	50+	500+	300-400
Number of non-speaking children treated over the past three years	50	20	5	20	50	8	20	20+	150+	50
Setting in which participant primarily works with clients with ASD	Therapy clinic or studio	Therapy clinic or studio	Public school	Public school	Private school	Client's Home	Public school	Client's Home	Therapy Clinic or studio	Therapy Clinic or studio
How many clients who use AAC outside of therapy use AAC in therapy?	Most	Most	All	Some	Few	Most	All	Most	All	Most
Kind of additional training in AAC	Individual training by SLP	None	Professional workshop at a university or community college	None	None	None	Course at	None	Individual training by SLP	Individual training by SLP

\*All (100%) Most (99%-65%) Some (64%-35%) Few (less than 35%) None (0%)

## RESULTS

- There were 1,353 thought units.
- Reliability:

### Benefits

**Motivation and Reinforcement:** Music creates motivation, encouragement, and reinforcement of communication and not communication skills. Music creates motivation because it is enjoyable and provides an outlet and opportunities for vocalizations and communication.

*“I feel that making choices through non-verbal means and having this communication be reinforced by music (a positive reinforcement) encourages the individual to increase communication attempts and understanding of the cause/effect relationship of communication.”* -Sue

**Total Improvement:** Music creates an overall improvement, from communication skills to motor and life skills. A safe environment is created which improves interaction which leads to improvements in communication and non-communication skills.

*“The music, therefore, becomes a means of interaction - teaching reciprocation, cause/effect, waiting, co-activity, listening, flexibility - all tools necessary for communication.”* –Jack

**Neurological:** Music assesses different portions of the brain and uses the whole brain, therefore strengthening weak connections that can address motor issues.

*“I then also reference the research on how rhythm optimizes neuroconnections, strengthening weak ones and creating connections where there are none. I then reference back and describe some of those weak connections in someone with autism -describing behaviors and that through the application of music we can strengthen neuroconnections and drive changes in the brain.”*-Emily

**Motor, Life, and Social Skills:** Music can teach non-communication skills such as independence, self-regulation, decreasing negative behaviors, attention skills, social skills, self-expressions, and motor skills.

*“Music is a great way to teach and reinforce basic concepts of on/off, stop/go, in/out, fast/slow, yours/mine, etc. which I feel are very important for safety, social skills, and daily life skills.”* -Sue

**Capturing the Benefits:** Benefits can be recorded by finding baselines during an initial assessment and then monitoring progress by using charts, recording, or tracking occurrences.

*“I do give speech trials within each session and assess measureable speech/communication outcomes as I go, but my focus is more about looking at the change/improvement from start to finish or start to re-assessment.”* -Amber

### Challenges

**Discrimination:** Is the individual showing their actual preference or a learned behavior?

*“Another challenge, whether able to communicate or non-verbal communication, knowing if the child or adult knows what he/she is actually saying; especially in terms of feelings. I find that kids are so quick to use vocabulary learned by them hearing others tell them “you are anxious” but they have no idea what this actually means.”* –Liz

**Generalization:** Will the individual be able to use the skills learned with the use of music outside of a musical setting?

**Dividing Attention Between AAC and Music:** When an individual is using AAC, it can be difficult to give the needed attention to the musical intervention. The individual could also become distracted by the AAC system or need training to use it.

*“When using a device, guidance is often needed and I either need to stop playing to use hands on assistance or I keep going and hope they use the device correctly. When I stop playing, I feel like I’m being more of a therapist because I’m really helping with learning those intricacies of how the client is communicating, but I feel a lack of music.”* –Marie

### Roles AAC Plays

**Serves as an Individual’s Voice:** An AAC system helps an individual communicate and participate by being a means of true communication.

*“The device, the system, is their voice. If it is not treated as such in all environments, it will never truly be that.”* –Emily

**Provides Control:** An individual is given control and independence when using an AAC system. This can diminish frustration and negative behaviors.

*“At least by using an AAC system, they are able to exert some control in the world. This can lead to behaviour improvements as well, because they are learning they can be heard in positive ways rather than using negative behaviours to get their message across.”* –Liz

**Provides Choices:** AAC systems provide individuals with choices so that they are able to better communicate, interact, and participate in interventions.

### Advice

**Keep It Simple:** Start with simple goals and interventions and keep explanations simple.

*“I think empowering them [SLPs] to expand on what they are doing by starting simple and then working from there. Give them a technique to incorporate each month that is simple and not too complex.”*-Sue

**Collaborate Effectively with a Music Therapist:** Co-Therapy and collaborating with a music therapist will help both of you to learn from each other as well as provide the best experience for the client.

*“Trading ideas and leaning on each others expertise is going to make clients receive the best of all worlds.”* –Jennifer

**Be Confident, Not Self-Conscious:** In order to effectively use music in therapy, you must be confident and open-minded to try new things that might be out of your comfort zone.

*“Being comfortable doing different/unfamiliar tasks and sometimes even acting silly or overly outgoing is the biggest helpful tool that anyone can have.”* –Jennifer

**Maintain Appropriate Expectations and Considerations:** Know an individual’s background information and do not underestimate their competence. Also, set realistic goals.

*“Thus the biggest challenge is not taking the person with autism at face value... The challenge is “forgetting everything you think you know, opening your minds to learn...” as an individual with autism once said so eloquently .”* –Emily

**Use Resources:** Use resources, such as T.V., magazines, or research, to help use music in therapy sessions.

*“This is a concept [body preparation] that many SLPs I work with have never considered, but they find it quite helpful once they are introduced to the idea and the research behind it.”* –Jennifer

**Other :** Includes fillers, greetings, transitions, reading suggestions, and recommendations.

## CONCLUSION

- Significant benefits to be gained through music with children with ASD.
- Challenges are ones that can be addressed with increased collaboration with SLPs.
- Collaboration is two-way. SLPs can work with MTs to bring the benefits of music outside of MT sessions.
  - Music is all around us and don’t be afraid to try it.

## REFERENCES

Blumberg, S. J., Bramlett, M. D., Kogan, M. D., Schieve, L. A., Jones, J. R., & and Lu, M. C. (2013). Changes in prevalence of parent-reported autism spectrum disorder in school-aged U.S. children: 2007 to 2011–2012. ( No. 65). Hyattsville, MD: National Center for Health Statistics.

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