

Language Research Presentation

Pamela Karavite
Michigan State University



Introduction

Impaired language skills, and the inability to communicate effectively, are prominent behavioral markers of Autism Spectrum Disorders (ASD).

Creative teaching methods have been shown to make a difference in the development of communication skills in individuals with ASD.



Imaginative Therapies

An autistic individual cannot process emotional content through spoken words; however, they can *learn* to process emotions through imaginative/creative therapies.

- **Musical Interaction Therapy**
- **Emotion Recognition Interactive Software Therapy**
- **Animal Assisted Therapy**



Musical Interaction Therapy

Research article #1

■ Background ~

- ◆ Music is an ancient form of communication, common to every human culture. It requires no verbal abilities, and it can be adapted to meet the needs of everyone.
- ◆ Music therapy is a well-established technique for using musical interaction to help individuals with a wide range of cognitive and emotional challenges to improve their ability to function.

■ Research Purpose ~

- ◆ People on the spectrum are often especially interested in and responsive to music. Because music is motivating and engaging, can it be used as a natural “reinforcer” for desired responses?

■ Intervention ~

- ◆ The music therapist finds musical experiences that strike a chord with a particular person, making personal connections and building trust.

■ Findings ~

- ◆ By interacting with adults and children on the autism spectrum, musical therapists can build skills, lower anxiety, and even develop new communication skills.



Emotion Recognition Interactive Software

Research article #2

- **Background ~**
 - ◆ Many individuals with autism spectrum disorders have difficulty recognizing emotions in themselves and others.
 - ◆ The Mind Reading interactive software program was developed to teach students with ASD recognition of emotions.
- **Research Purpose ~**
 - ◆ Can interaction emotion recognition software help students learn about emotions, and improve emotional awareness, without the stress of the human components?
- **Intervention ~**
 - ◆ Through games and lessons, children on the spectrum were able to explore over 400 emotions.
- **Findings ~**
 - ◆ The interactive software was proven to be a successful intervention, improving emotional awareness in children with ASD; ultimately, making a difference in the development of communication skills.



Animal Assisted Therapy

Research article #3

■ Background ~

- ◆ Animal assisted therapy can include, but is not limited to, dogs, horses, cats, and dolphins.
- ◆ Many children with autism can't relate to a human, but they can relate to an animal.
- ◆ Most autistic children are more playful, happier, and more focused when around animals.
- ◆ Therapies involving animals can be used to help individuals with autism to develop skills, including sensory and social skills, to manage challenging behaviors, and improve quality of life.

■ Research Purpose ~

- ◆ The recognition of animals' potential as communicative partners for children with autism ~ Can animals help people learn to bond or form social attachments?

■ Intervention ~

- ◆ Introduction of a dog into a child's life can entice an autistic child to play spontaneously.
- ◆ Dogs will not only initiate a bid for attention, but will insist on it. No verbal language or understanding of more complex human-to-human interaction is required.

■ Findings ~

- ◆ Studies have shown that the mere presence of animals alters a child's attitudes towards him/herself and improves the ability to relate to others ~ showing a significantly greater use of language and significantly greater social interaction.



© Zenb the Warner Pazzo / Facebook



Synthesis of Articles

- Similarities

- ◆ Can increase communicative behaviors in young children with autism
- ◆ Can build skills, lower anxiety, and even develop new communication skills
- ◆ Can help children with autism gain a self-awareness and relatedness to others
- ◆ All interventions can be used in home, school, community organization or private practice settings



Synthesis of Articles

- Differences

- ◆ The tools used (i.e., music, games, animals)
- ◆ Infants showing signs of ASD may react positively to musical interaction therapy and animal assisted therapy, but would not benefit from interactive software until they are more mature.
- ◆ Animal therapy provides children with ASD a direct relationship, or a friend, who they can touch, feel and interact with.
- ◆ Children with ASD can have a special aptitude for music, where others may not.
- ◆ Lower income families may not have access to computers for the interactive software programs, or music therapy; yet, they may have access to animals.



Impact on the Field

- Dramatic improvements in autistic children who receive one of these therapies has instigated numerous research studies over the past several years, studies that have helped therapists develop effective interventions and techniques.
- Proven success in autistic children has increased the demand for these such therapy programs, targeting autistic individuals, increasing exposure to these types of treatments in schools, community organizations, and in private practice.



Impact on my Professional Career

- Provided insight into creative teaching methods proven to make a difference in the development of communication skills.
- Inspiring me to incorporate all three therapies as interventions that complement and reinforce each other.
- Increased my understanding of ASD and my approaches, while diverse in nature, if one doesn't work, another may.



Reference List

Article 1: Wimpory, D.C. & Nash, S., University of Wales, Bangor (1999). Musical Interaction Therapy - Therapeutic Play for Children with Autism. *Journal of Autism and Developmental Disorders*, 18, 561-71

Article 2: LaCava, P. G., Ofer, Baron-Cohen, S., Myles, B. S. (2007). Using Assistive Technology to Teach Emotion Recognition to Students with Asperger Syndrome: A Pilot Study. *Remedial and Special Education*

Article 3: Baranauckas, C. (2009). Exploring the Health Benefits of Pets. *The New York Times*. Retrieved from <http://www.nytimes.com/2009/10/06/health/06pets.html>