# Vocalization Production in Nonverbal Children with Autism

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#### **Disclosure Statement**

No authors have any relevant financial relationship for the content presented in this presentation.

#### Introduction- Definition

 Autism spectrum disorder or ASD is a neurological disorder characterized by impairments in language, communication, and social interactions, as well as having limited interests and stereotypical behaviors (LaRue et, al. 2009).

#### Introduction- Nonverbal

- Children with autism can be classified as verbal or nonverbal (Frith, 1998).
- Around twenty percent of children who are nonverbal continue to be nonverbal or acquire only a small amount of practical speech (Frith 1998).
- Children with ASD who possess minimal linguistic skills may benefit from language input that focuses on the child's attention (LaRue et al., 2009).

#### Introduction-SLP's Role

- SLPs can contribute to the independence of individuals with ASD by ensuring each individual has a functional communication system and by supporting communication in different social settings with a variety of partners to promote generalization of skills (ASHA, n.d.)
- Therefore, it is important to know what type of language input from the family and professional team allows the child to be most successful in their language development.

#### **Purpose**

 The purpose of this study is to determine whether a more complex or a less complex linguistic output of an interventionist will allow a nonverbal child with autism to produce more utterances.

## Materials-Participant

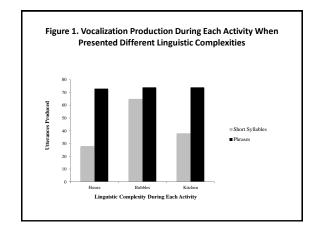
- Participant
  - The participant was a 2.5 year old female. She was diagnosed with autism at 19 months old.

#### Methods

- · Procedures
  - During the therapy session, the clinician altered the type of linguistic complexity for a specific amount of time. The child and the clinician participated in activities such as playing house, playing kitchen, and playing with bubbles.
  - There were two types of linguistic complexities presented:
    - · Single words or short syllables
    - · Phrases

#### Methods in detail

- · For the first session:
  - During the first ten minutes no data was taken.
  - For the next 10 minutes, the clinician's language only consisted of short utterances like single words and syllables.
  - During the following 10 minutes, the clinician talked in phrases. Next, the clinician talked in single words and syllables again for 10 minutes.
  - The session ended with 10 minutes of no data being collected again.
- The second session would be the same time increments, but opposite linguistic complexities.



# Discussion- In Relation to Hypothesis

- It was hypothesized that using more linguistically complex language with a nonverbal child with autism will increase the amount of utterances produced.
- The original hypothesis was proven based on the results of this study.

### Discussion-Interpretation

- The results concluded substantially more utterances were produced when presented more linguistically complex language during each separate activity.
- Focusing jointly on a task and facilitating communication by providing language for the child to comment on the task allowed the participant to produce more utterances.
- Providing a mutual interest by focusing on the same object will guarantee a communication pathway.
- During the less-complex linguistic complexity, there were not as many opportunities for the participant to interact jointly.

## **Discussion-Implications**

- Knowing what type of language to use to provide more language opportunities that can be applied to everyday activities is vital for language development
- Spreading this knowledge to all members of the intervention team will offer the child opportunities to flourish.

#### Limitations

- The experiment could not be generalized due to the lack of participants.
- The types of the activities that were presented during the experiment could have limited or exceed the participant's normal communication.
- The experiment was performed at the clinic. Children around the participant's age would be more likely to succeed in a more naturalistic environment.

#### Recommendations

- Different activities be introduced
  - Introducing new activities that the child has not participated in previously may change the outcome of the results
- · Involve parents in the experiment
  - The frequency of parent responsiveness increased language skills of the children
- More participants become involved in the experiment
  - Wider range of ages

## Conclusions

- SLPs should gain knowledge of linguistic complexity output to practice during intervention with children with autism
- Understanding what type of language input enables the child to develop most efficiently is key to a successful intervention.
- This study concluded that using more linguistically complex language with a child with autism who has minimal language skills when focused on the same activity might have a positive affect on the child to produce more utterances.

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