Background and Basic Issues

Studies report between one-third and one-half of all individuals with autism never develop functional speech, and it is rarely a truly nonverbal individual. The researchers used a method to teach speech to individuals with autism, but it is important to note that the sample size used in this study was small and further research is needed to understand the effectiveness of this method. The sample consisted of 6 individuals, with ages ranging from 10 to 19 years old. The sample included 4 males and 2 females. All individuals were diagnosed with Autism Spectrum Disorder (ASD) and had a history of non-verbal communication. The sample size was limited due to the challenging nature of the study and the difficulty of obtaining consent from family members.

Methods

The study was conducted in a home-based setting with each participant. The intervention consisted of 26 weeks of training, with each session lasting 20 minutes. The intervention involved the use of verbal/visual/tactile cues for specific consonants and vowels. The cues were used to teach the participants to make vocalizations voluntarily, and the target sounds were chosen based on the participant's individual needs. The target sounds included /p/, /t/, /k/, /m/, /b/, /w/, /s/, /z/, /h/, /θ/, and /ð/. The cues were used to prompt the participant to produce the target sound, and the participant was rewarded for correct responses.

Data collection and analysis

Data was collected using video observations of the participants. The data was organized into 5 categories: correct, incorrect, prompted, and no response. Correct responses were defined as the participant producing the target sound without error. Incorrect responses were defined as the participant producing the target sound with error. Prompted responses were defined as the participant producing the target sound with assistance from the instructor. No responses were defined as the participant not producing the target sound.

Results

The results showed that the intervention was effective in teaching speech to individuals with autism. Across the 26 weeks of training, 7 new sounds were acquired by the sample. The average number of weeks to acquire a new sound was 100. The results also showed that the intervention was successful in improving the participants' vocalization skills, with a decrease in the number of errors and an increase in correct responses.

Conclusions

The study provides important insights into the effectiveness of a home-based intervention for teaching speech to individuals with autism. The results suggest that verbal/visual/tactile cues can be effective in teaching speech to individuals with autism, and that further research is needed to understand the long-term effects of the intervention. The results also emphasize the importance of early intervention and the need for ongoing support for individuals with autism.

Acknowledgments

This investigation was supported in part by an anonymous donor, the Therapeutic Cognitive Neuroscience Professorship endowment, and the Benjamin A. Miller Family Endowment for Aging, Alzheimer’s Disease and Autism. Thanks to Jennifer Thorne, Aaron Mattfeld, and Eri Medof.

References