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New research

Communication Interventions for Minimally Verbal Children With Autism: A Sequential Multiple Assignment Randomized Trial

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Objective

This study tested the effect of beginning treatment with a speech-generating deviceÂ (SGD) in the context of a blended, adaptive treatment design for improving spontaneous, communicative utterances in school-aged, minimally verbal children with autism.

Method

A total of 61 minimally verbal children with autism, aged 5 to 8 years, were randomized to a blended developmental/behavioral intervention (JASP+EMT) with or without the augmentation of a SGD for 6 months with a 3-month follow-up. The intervention consisted of 2 stages. In stage 1, all children received 2 sessions per week for 3 months.

Stage 2Â intervention was adapted (by increased sessions or adding the SGD) based on the childâ€™s early response. The primary outcome was the total number of spontaneous communicative utterances; secondary measures were the total number of novel words and total comments from a natural language sample.

Results

Primary aim results found improvements in spontaneous communicative utterances, novel words, and comments that all favored the blended behavioral intervention that began by including an SGD (JASP+EMT+SGD) as opposed to spoken words alone (JASP+EMT). Secondary aim results suggest that the adaptive intervention beginning with JASP+EMT+SGD and intensifying JASP+EMT+SGD for children who were slow responders led to better posttreatment outcomes.

Conclusion

Minimally verbal school-aged children canÂ make significant and rapid gains in spoken spontaneous language with a novel, blended intervention that focuses on joint engagement and play skills and incorporates an SGD. Future studies should further explore the tailoring design used in this study to better understand childrenâ€™s response to treatment.

Clinical trial registration informationâ€”Developmental and Augmented Intervention for Facilitating Expressive Language (CCNIA); http://clinicaltrials.gov/; NCT01013545.

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Key Words

autism spectrum disorders; minimally verbal; school-aged; communication intervention; SMART design

This article is discussed in an editorial by Dr.Â Helen Tager-Flusberg on page 612.

This article can be used to obtain continuing medical education (CME) at www.jaacap.org.

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