Critical Review: Can Augmentative and Alternative Communication (AAC) speech-generating devices (SGDs) improve communication in children with nonverbal autism spectrum disorder?

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This critical review examines the literature on the efficacy of speech-generating devices (SGDs) for improving communication in children with nonverbal autism spectrum disorder (ASD). A total of seven studies were selected and reviewed including multiple baseline across participants designs and an ABCACB multiple-treatment reversal design. Overall, the results are suggestive of positive outcomes regarding improvements in communication with the use of SGDs for children with nonverbal ASD.

Introduction

Autism spectrum disorder (ASD) refers to a lifelong neurodevelopmental disorder characterized by restricted and repetitive behaviours, interests, and activities as well difficulties with social interactions and as communication (American Psychological Association, 2021). ASD occurs in every racial, ethnic, and socioeconomic group, but is known to be four times more common in males than females (American Psychological Association, 2021). As of 2018, approximately 1 in 66 children in Canada are diagnosed with ASD and approximately 1-2% of Canadians are on the autism spectrum (Autism Ontario, 2021). ASD is considered to be a "spectrum" due to the heterogeneity in both the way the disorder is presented and the severity of which the individual is effected

should be recognized that this data should be interpreted with some caution as a small sample size was used. On top of the small samp King, M. L., Takeguchi, K., Barry, S. E., Rehfeldt, R. A., Boyer, V. E., & Mathews, T. L. (2014). Evaluation of the iPad in the acquisition of requesting skills for children with autism spectrum disorder. *Research in Autism Spectrum Disorders*, 8, 1107-1120 doi:10.1016/j.rasd.2014.05.011.

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