Identifying the barriers to communication in children with autism

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Approximately 30% of individuals with autism do not develop speech that is sufficient for meeting the communication demands of everyday life. People with autism and little to no functional speech rely on

augmentative and alternative communication (AAC) to engage in social, vocational and educational opportunities.

AAC refers to all the ways a person communicates besides talking. This can range from gestures and facial expressions or pointing at photos and written words to using an app on a tablet or computer.

In a new publication in *Perspectives of the ASHA Special Interest Groups*, researchers in the Penn State College of Health and Human Development documented current intervention methods used by speech-language pathologists when teaching autistic children with little to no functional speech to use AAC, along with the challenges they face using such methods.

The researchers found that current intervention strategies do not appear to be effective in teaching the use of AAC for engagement in social communication for individuals with autism and severely affected receptive language skills.

Existing standards on how to use AAC focus primarily on requesting skills—teaching children to ask for things they want or need—but few resources exist for teaching children to use AAC in the context of social communication, such as exchanging greetings with another person, especially for those with little to no speech skills.

Meghan Wendelken, who earned her doctorate in communication sciences and disorders at Penn State in 2022 and is currently an assistant professor of health and human performance at Middle Tennessee State University, led the study. She said she was inspired by her previous clinical experience working with autistic children.

According to Wendelken, a small number of autistic children with severely impaired communication skills may learn to use AAC for social

communication, or for functions beyond asking for things they want or need, but this does not typically occur in the wider population of autistic children with severe language impairments, especially outside of highly structured research studies.

"Given the limited amount of evidence for effective AAC intervention for these children, especially intervention targeting social communication, I wanted to explore what intervention techniques speech-language pathologists are using and if they find them to be effective for this population," Wendelken said. "This could assist in identifying the challenges speech-language pathologists face and highlight a need to explore more effective intervention methods."

Working with Diane Williams, professor and head of the Department of Communication Sciences and Disorders, Wendelken conducted 13 in-depth interviews with currently practicing speech-language pathologists who work with this population to describe their experiences and the challenges they encounter. After the interviews were complete, the researchers used qualitative data analysis to identify themes and subthemes to understand how these clinicians are making decisions when conducting AAC intervention with their clients.

Speech-language pathologists largely reported an emphasis on requesting skills during AAC intervention with children in this population and using evidence-based practice to inform their decision-making, suggesting that clinical practice resembles current research literature.

The speech-language pathologists also expressed frustration due to observing inconsistent or no progress in retention of skills being taught to the children, a lack of guidance for the effective development of communicative functions beyond requesting—like expressing different emotions and feelings or asking questions deeper than wants or needs—and difficulty supporting the generalization of communication

skills outside of structured, adult-directed tasks.

Another challenge identified was that speech-language pathologists are often unable to successfully train communication partners, specifically parents, teachers and paraprofessionals.

"We know communication partner training is essential to making AAC effective," Williams said. "While people reported that they are carrying out some of this training, they also reported not seeing much generalization of the skills being taught. We need to figure out additional training methods and do a better job of teaching people what they need to do to be more effective communication partners."

Wendelken said she hopes to build off this study in the future, exploring how AAC intervention techniques can be improved for this subgroup of autistic children by placing more of an emphasis on social communication. She credited her Penn State experience for helping her grow professionally and enter into an academic appointment where she can continue her research.

"My mentors at Penn State were exceptional and fantastic role models," Wendelken said. "They challenged me to think critically, which allowed me to grow as both a teacher and researcher. They were incredibly supportive throughout the program, especially my adviser, Diane Williams. Their support for both teaching and conducting research allowed me to confidently enter an academic appointment."

Wendelken's current research evaluates the effectiveness of online training for communication partners. Her goal is to create more accessible AAC-training options and positively impact this population's ability to communicate effectively in everyday life situations.

"Overall, practicing clinicians are doing a great job at following the

evidence-based practice that exists in the current literature," Williams said. "But as a department, we are always thinking about the impact of our work for practicing clinicians. The actual implementation of research is important and helps us inform our research questions. We strive to conduct research that improves people's ability to communicate and positively impacts their life experience."

More information: Meghan E. Wendelken et al, Is Research on Augmentative and Alternative Communication Intervention With Children With Autism Spectrum Disorder Reflected in the Clinical Practice of Speech-Language Pathologists?, *Perspectives of the ASHA Special Interest Groups* (2023). DOI: 10.1044/2023_PERSP-23-00022

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