

**VIEWPOINT**

# Families need guidance before buying a communication app for autism

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Many children with autism have little to no functional speech, and their families are often desperate to help them communicate.

In today's connected society, these families are likely to hear about a variety of communication apps — some specifically targeted at children with autism — available for mobile devices, including iPads. Often the advertisement includes a video of a child who starts communicating using the app's voice output, effortlessly asking for a cup of juice or saying, for the first time, "I love you."

What family who could afford it wouldn't buy that app?

What does not appear in these ads, however, is what happens after the purchase. Although the child may initially be drawn to the app, the novelty usually wears off before there are any improvements in communication. Families, feeling let down and frustrated, often turn to school or medical professionals for help.

If they are fortunate, someone will refer the family to an expert in augmentative and alternative communication, or AAC. The experts, usually speech-language pathologists in the United States, work in schools, medical settings and private practices. They know how nonverbal forms of communication such as picture symbols (pictures that represent words or phrases) and high-tech devices with voice output can help some children communicate.

When families approach AAC specialists for help to "make this app work," the experts all recommend the same thing: a full assessment to determine the best AAC solutions for the child — which may not, in the end, include using the expensive app the family just purchased.

As an AAC expert, I've seen this scenario play out all too many times over the past 10 years, ever since the first comprehensive communication app debuted about a decade ago. Although these kinds of communication programs have been available on expensive specialized devices for several decades, only recently has the software become available for mobile devices — and at a lower cost, making the apps more accessible to families seeking solutions.

Although the ads make it seem as if communicating using technology is a new development, AAC professionals have been formally assessing such solutions for more than three decades. Once an assessment is complete, they make informed recommendations based on the child's individual profile and the family's needs.

The recent focus on AAC apps has flipped this process. Families often purchase the device and app first and seek professional help only later. Given the varying profiles of people with autism, the complexities of communication and the uniqueness of each family's needs, it's no wonder this approach rarely works.

Educators and medical professionals need to be aware that parents are being lured by the promise of quick success. They should anticipate this, help families understand there is no one-size-fits-all solution and refer families for full AAC assessments. They must also learn that no technology, no matter how well suited to the child, will fix communication without instruction and personalization.

## Access to innovation:

New technologies have brought a wealth of benefits to people with autism. Mobile technologies are more affordable than highly specialized AAC devices, which can cost more than \$7,000, compared with \$300 to \$800 for a mobile device and app.

A full range of sophisticated software options are available for both mobile and AAC devices, and mobile technologies are helping normalize AAC use, as tablets and smartphones are now central to everyday interactions. Instead of using an unusual device in class, these children with autism get to be the ‘cool’ kids who use iPads in class.

Importantly, AAC also includes low-tech solutions, such as paper-based communication displays containing letters, written words or picture symbols. And people also can communicate by using unaided AAC — that is, with one’s own body, using gestures and sign language.

Even in our high-tech world, low-tech and no-tech remain important. For example, some families may be reluctant to bring an expensive device home because it might be stolen or can’t be charged due to a lack of electricity. Also, when it comes to technology, breakdowns occur — so everyone needs a backup plan. AAC professionals can help ensure that communication solutions are in place when a tablet isn’t available.

## Learning and instruction:

Today’s communication apps are seldom intuitive<sup>1</sup>. When children and adults are not taught how to use them, AAC technologies gather dust on a shelf<sup>2</sup>. High-quality instruction for the person using the app, and for the other communication partners — family members, educators, peers — is essential to promote successful communication.

The person using AAC needs to be taught not only how to operate the technology but also the basics of communication: whom to talk with, when to talk, which words to use and how to put sentences and stories together<sup>3</sup>. Children who use AAC successfully have typically received regular AAC instruction from a school-based speech-language pathologist and also, when possible, through additional private speech-language pathology services.

And everyone else also needs to learn how to communicate with children who use AAC. Even simple interventions that teach adults and peers how to provide extra time for communication and how to model communicating using the device can have dramatic, positive impacts on communication<sup>4</sup>. These practical actions help communication partners identify contexts for using AAC, create opportunities for using it, and practice using apps and other solutions in specific, everyday activities, from reading a story to getting dressed.

## Personalized approach:

The need for personalization cuts across all aspects of communication: technology, instruction and contexts for communication.

Children with autism rarely see any improvements if the technology — the mobile device and app — hasn't been personalized. Based on their needs, autistic children benefit from different apps with different features. An AAC assessment can determine a child's specific needs, such as the size and number of symbols that the child can manage and how complex the system should be.

For example, a high school student with autism who has a high intelligence quotient may require a different instructional approach and less support than a preschooler with the condition. Families from different cultural, ethnic and linguistic backgrounds may also have different value systems and different expectations for their children. Personalized instruction helps ensure that each family's needs are met<sup>5</sup>.

For best outcomes, we also need to personalize communication contexts. For example, which activities are fun, motivating and age-appropriate for the child, and what communication needs do the children have in various situations? Does the child need to be able to get through the grocery store without having a meltdown, talk with peers about popular music or chat with the family during Sunday dinner? AAC experts can help families and children identify important contexts for communication and find effective solutions.

Families will no doubt continue to hear compelling promises of quick fixes. Educators, medical professionals and clinicians should do all they can to connect families to AAC experts and secure an assessment before investing in a particular app. Even after identifying the right app, regular instruction on and personalized attention to all aspects of communication are still required to help children meet their full potential.

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