

# Factors that contribute to device abandonment in children with severe and challenging behaviors who use AAC

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## Objective:

Augmentative and alternative communication (AAC) involves ways to communicate as an alternative to vocal communication (i.e., speech). It may entail picture cards, sign language, switches, or communication devices such as iPads or tablets with applications designed for communication. For many children who are nonverbal, AAC offers a variety of communication methods that enables those individuals to have their wants and needs met. A strong relationship exists between communication deficits and challenging behavior (e.g., aggression, self-injury, destruction). Many behavior analytics and communication studies have shown significant improvement in challenging behavior when non-vocal individuals have alternative communication options (e.g., Mirenda, 1997; Tiger et al., 2008); however, device abandonment continues to be a common phenomenon within this population (Bingham, Spooner, & Browder, 2007).

The purpose of this study was to investigate factors that may contribute to device abandonment in children who are prescribed Augmentative and Alternative Communication (AAC) and exhibit severe and challenging behaviors. We predict that a lack of training and time are likely key factors for device abandonment across demographics. Additionally, we might see an increase in cultural factors impacting use in families from culturally and linguistically diverse (CLD) backgrounds.

## Methods:

### Participants

13 parent/guardian-child pairs who are referred to the BioBehavioral Outpatient Clinic at the Center for Disabilities and Development with the following criteria:

1. Child between the ages of 3 and 17 years of age
2. Child exhibits at least one of the following challenging behaviors:
  - a. Physical aggression
  - b. Property destruction
  - c. Noncompliance/refusal
  - d. Tantrums (e.g., crying, screaming)
3. Child has been prescribed an AAC option
4. Parent/guardian speaks English without the need for an interpreter

### Experimental Design

Gathering Data on Device Abandonment and Device Training

- A 26-question survey was completed by the parent/guardian of the AAC user, which inquired about demographics, device usage, and familiarity with the AAC

device. The survey was completed in the clinic during their appointment and immediately returned to the researcher.

### **Results:**

- All parents that did not receive ANY training also reported that the device is not always available.
- When reporting why the device wasn't used, 10/13 parents reported that their child refuses to use the device or that they already know what their child wants.
- Participants that reported using the device across the most settings regularly also received the most amount of parent training.
- Both high-tech and low-tech options are being abandoned.
- 5 devices were only used at school.
- Families that reported being of race or ethnicity other than white had poorer cultural views of AAC.
- Families whose device did not operate in their primary or native language reported either monthly or less than every month device usage. Versus 7/9 of families whose device does operate in their primary language reporting that the device is used multiple times a day or at least once a day.

### **Discussion:**

Based on the results of this survey, there are many different factors that can contribute to device abandonment in children with severe and challenging behaviors. Some interesting trends noted regarding factors that may lead to abandonment from this survey include the lack of training provided to parents and teachers, the device not consistently being available to the child, the family's culture viewing AAC more negatively, and the device not being customized to reflect the client's culture (e.g., operating in primary language).

Limitations of this study include the small sample size obtained as well as the participants being selected from those already undergoing biobehavioral services.

Future research should investigate device usage and parent promotion of device usage increases in post-visit observations (from pre-visit observation) as a result of therapist recommendations and parent training on device usage. Research may also observe any trends in usage when comparing in-person training to a virtual equivalent.