**Purpose**
The purpose of this study is to survey persons with autism spectrum disorders (ASD) and/or their caregivers to determine communication effectiveness and satisfaction that examine a number of parameters typically targeted for communication when ASD is diagnosed.

**Background**

- ASD presents in a wide variety of communication impairments from very mild to severe
- Approximately 50% of persons with ASD are functionally non-verbal, with insufficient natural speech or written language to meet their daily communication needs (Light, Roberts, DiMarco, & Greiner, 1998)
- Children with ASD tend to begin speaking later than their typically-developing peers & continue to develop speech at a reduced rate (Drager & Finke, 2005)
- Children with ASD use limited communicative functions; instead relying predominantly on behavior regulation functions for expression (Wetherby, Prizant & Hutchinson, 1998)
- Research (Drager, et al 2005) illustrates that children with ASD demonstrate increases in communicative turn-taking, range of unique concepts used, rate of vocabulary acquisition, & range of semantic relations they express when using communication systems with voice output, referred to as speech generating devices (SGDs)
- Drager et al. (2005) noted that communication strategies can aid persons with severe communication impairments in development of receptive & expressive language
- Sutherland (2005) found that ASD was identified by speech-language pathologists as one of the 3 most commonly-reported etiologies among students who use communication devices

**Method**

**Research Design**
- Ethical standards for research involving human subjects was followed and approved by the University of Nebraska Medical Center Institutional Review Board prior to initiation
- A survey was the framework for this study
- SGD manufacturers contacted potential participants & requested approval to provide the researchers with their contact information
- 36 individuals granted permission to partake in the survey
- A 64-question survey was completed by caregivers of children diagnosed with ASD
- The survey included items addressing the use of SGDs and communication effectiveness, successful interactions, and satisfaction for the caregiver and the person with ASD

**Results**

**Participants**
- 36 surveys mailed, 22 returned, 61% return rate
- 19 male/3 female, ratio 6.33:1
- Age range 6-15 years
- Communication system manufacturers included Dynavox Technologies and Prentke Romich Company

**Discussion**

This study provides justification for decisions to implement SGD communication use with persons with ASD by demonstrating that these devices are important to the individuals who use them and that they improve their ability to communicate. Participants indicated that once they obtain a SGD, non-use of the system is no longer an effective communication alternative.

**Conclusion**

- 100% of participants indicate that functional communication with persons with ASD was improved by using SGDs
- Functional communication with an SGD was greater than with no SGD with:
  - communication effectiveness (family, friends and paid workers)
  - productivity (social interactions)
  - success (fewer communication breakdowns)
  - satisfaction (school and fun recreation activities)

**References**


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