

Background

- Accessibility of mobile apps/web-based tools for tracking health information has increased in recent years.
- Though accessibility has increased, few people use these tools.
- More research is needed to ensure that products align with users' needs and goals.

Objective

- To survey interest in and use of mobile apps/web-based tools to track ASD-related behavior within an online community of parents/guardians of children with ASD.

Methods

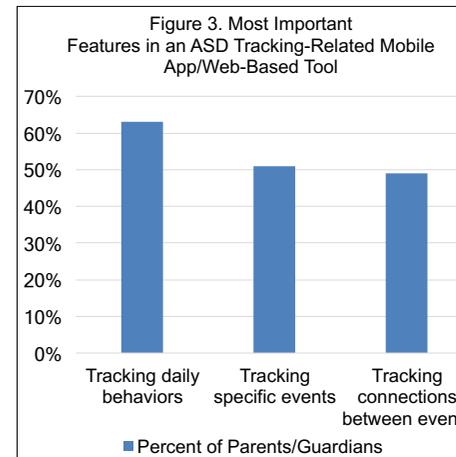
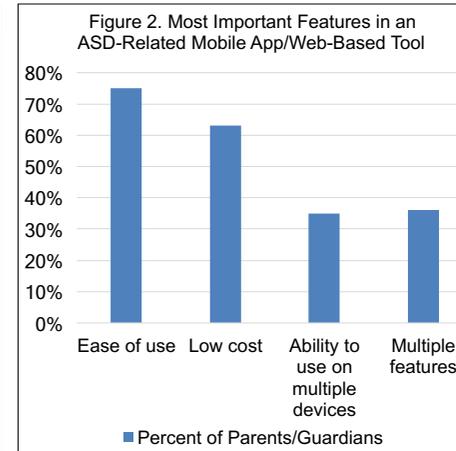
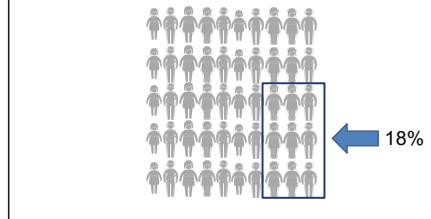
- Anonymous survey distributed to 16,031 participants of the Interactive Autism Network (IAN) over five weeks.
- Surveys primary aims were:
 - To assess the autism community's interest in participating in SPARK
 - To assess the autism community's interest in mobile apps/web-based tools to track ASD behaviors and related information
- Respondents were asked to report on their past and present use of mobile apps/web-based tools in the below areas:
 - Recreation
 - Social/communication skills
 - Education
 - Organizing and tracking
 - Tracking of ASD-related behaviors
- Data abstracted from SurveyMonkey and analyzed using Stata 12.0

Results

- Survey completion
 - 943 parents/guardians of children with ASD
- Past use of mobile apps/web-based tools
 - 18% of parents/guardians of children with ASD
- Most important features in an ASD-related mobile app/web-based tool
 - Ease of use: 75%
 - Low cost: 63%
 - Ability to use on multiple devices: 36%
 - Multiple features: 36%
- Most important features in an ASD tracking-related mobile app/web-based tool
 - Tracking daily behaviors: 63%
 - Tracking specific events (e.g., tantrums): 51%
 - Tracking connections between two things (e.g. behavior and diet): 49%
- Percent of parents/guardians who would be willing to spend several minutes a day (>5 minutes) entering data into a mobile app/web-based tool if they could see changes over time
 - 74%

Age of child in years, mean (SD); (n=828)	6.0 (2.4)
	N (%)
Child Gender	822
	Male 687 (84)
	Female 135 (16)
Annual household income	725
	<\$35,000 118 (16)
	\$35,000 - \$49,999 86 (12)
	\$50,000 – \$74,999 146 (20)
	\$75,000 - \$99,999 119 (16)
>\$100,000 256 (36)	
Child race	749
	White 666 (28)
	Black / African American 35 (1)
	Asian / Pacific Islander 21 (1)
	Other 27 (3)
Hispanic, N (%)	73 (8)

Figure 1. Proportion of Parents/Guardians Who Have Used a Mobile App/Web-Based Tool to Track ASD-Related Information



Conclusion

- Despite participating in online research, many parents/guardians in IAN do not use mobile apps/web-based tools to track ASD-related information
- Though app/web-based tool use is low among parents/guardians, a majority (75%) would be interested in using a tool to track and visualize their child's behavior over time
- Needs and desires of parents who previously used mobile apps/web-based tools closely matched those that had not previously used these tools
- Further user-testing/surveying is important in the development of mobile apps/web-based tools to track ASD-related information

References

- Sven Bölte, Ofer Golan, Matthew S. Goodwin, and Lonnie Zwaigenbaum. What can innovative technologies do for Autism Spectrum Disorders? *Autism* May 2010 14: 155-159, doi:10.1177/1362361310365028
- Putnam, C., & Chong, L. (n.d.). Software and technologies designed for people with autism. *Proceedings of the 10th International ACM SIGACCESS Conference on Computers and Accessibility - Assets '08*.

Acknowledgements

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