Project LEApp (Learning to Eat App): Developing an iPad-based Video Modeling Intervention in Increasing Food Variety in Children with Autism Spectrum Disorder (ASD)

Background

- Prevalence of feeding difficulties (FD) in children with Autism Spectrum Disorder is 46-89%
- Feeding difficulties start early on and can result in strained parent-child interactions, parental stress and adverse health outcomes
- Current evidence-based therapeutic interventions for feeding difficulties in ASD are limited and do not address prevention
- Video modeling has been successful in teaching skills to children with ASD
- Can be delivered in a naturalistic environment
- Can be repeated to improve skill acquisition and generalization
- Reduced amount of provider time
- Video modeling targeting prevention of food selectivity has not yet been explored
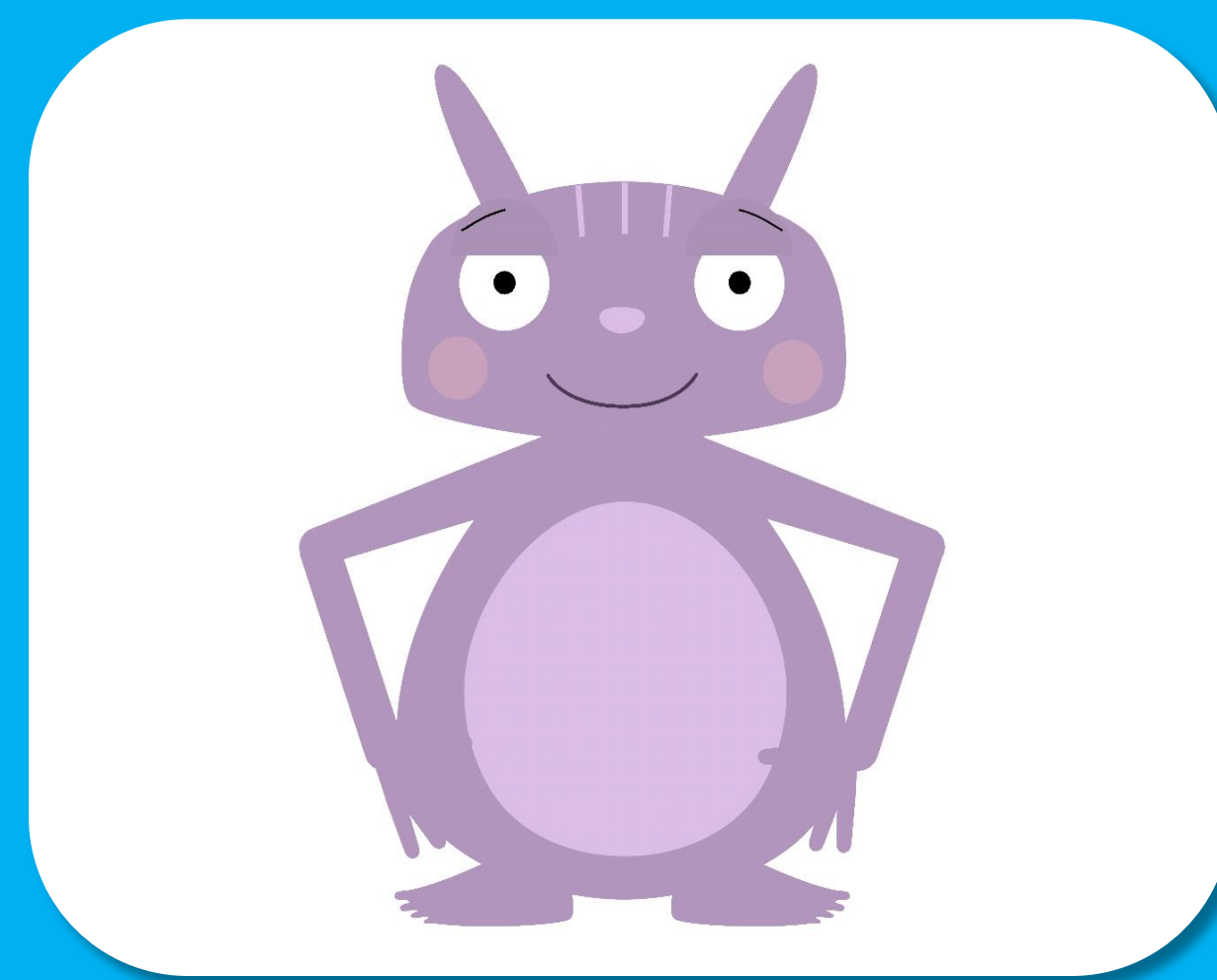
Project Team

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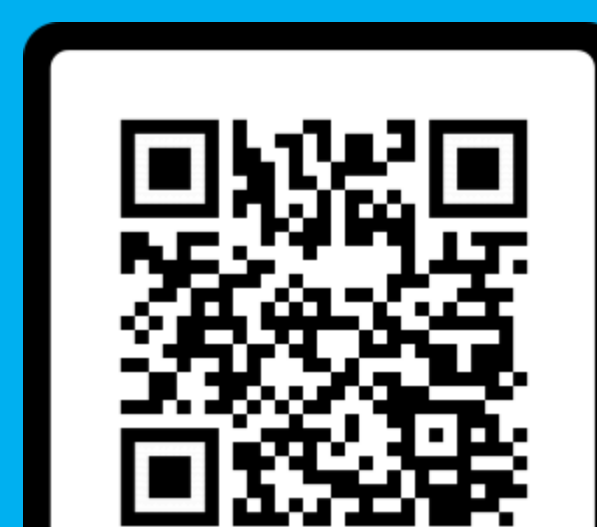
Programs

- Holland Bloorview Kids Rehabilitation Hospital,
- Bloorview Research Institute,
- University of Toronto,
- Geneva Centre for Autism,
- The Hospital for Sick Children
- Centre for Leadership (CfL)

We made a mobile application for children with autism spectrum disorder to help them with eating different types of food

Methods

Tool Development:
- 3 focus groups (including SLP, OT, BT, dietitian, and parents of children with ASD and FD)
- app designed using Unity game engine

Usability and Feasibility
- 15 parent-child dyads (mild food selectivity, average visual perceptual skills)
- Trial use at home during snack time for 2 weeks
- Usability and feasibility questionnaires
- In app data capture to track usage

Results

Conclusions

- LEApp is a novel educational platform targeting prevention of feeding difficulties that can be tailored to a child's and family's needs
- This study will add to our knowledge base regarding food selectivity and video modeling as a preventative tool to address food selectivity in children with ASD
- LEApp includes the voices and experiences of families and clinicians in all phases of development
- LEApp has the potential to limit multiple hospital visits and reduce provider time