

# Telehealth Interventions for Individuals with Autism Spectrum Disorder

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## BACKGROUND

There is a growing body of literature to support the use of telehealth to provide effective occupational therapy services to individuals across the lifespan (AOTA, 2018). In addition to generating functional outcomes similar to in-person care, many studies also note that telehealth use can increase access to care, decrease costs, overcome scheduling and transportation barriers, and create more collaboration between healthcare providers and families (AOTA, 2018). To date, much of the literature on using telehealth to deliver occupational therapy services for individuals experiencing autism spectrum disorder (ASD) focuses primarily on parent coaching and training (Vismara et al., 2018). While this is an important component of supporting families and individuals with ASD, there appears to be a lack of evidence to support direct therapist-led interventions via telehealth for individuals with ASD. It is estimated that around 1 in 68 individuals in the United States experience ASD (Vismara et al., 2018). Because occupational therapy services delivered through telehealth have demonstrated effectiveness in increasing occupational performance, participation, and quality of life, more exploration and research should be done to create best practice models for delivering direct telehealth services to individuals experiencing ASD.

## CLIENT HISTORY

The client is an 8-year-old child residing in an urban center with limited access to occupational therapy services. His initial diagnosis at 6-years-old included disruptive behavior in pediatric patient, ADHD, dysgraphia, and anxious mood. He was later diagnosed with autism spectrum disorder (ASD). He currently lives at home with one parent and a 5-year-old brother, who is diagnosed with ADHD and oppositional defiance disorder (ODD). The client previously received school-based occupational therapy services through an individualized education plan (IEP). Despite no longer qualifying for occupational therapy services at school, he continues to receive special education supports. He was originally referred for outpatient occupational therapy services to address dysgraphia and sensory dysregulation secondary to ADHD diagnosis.

## RESEARCH QUESTION

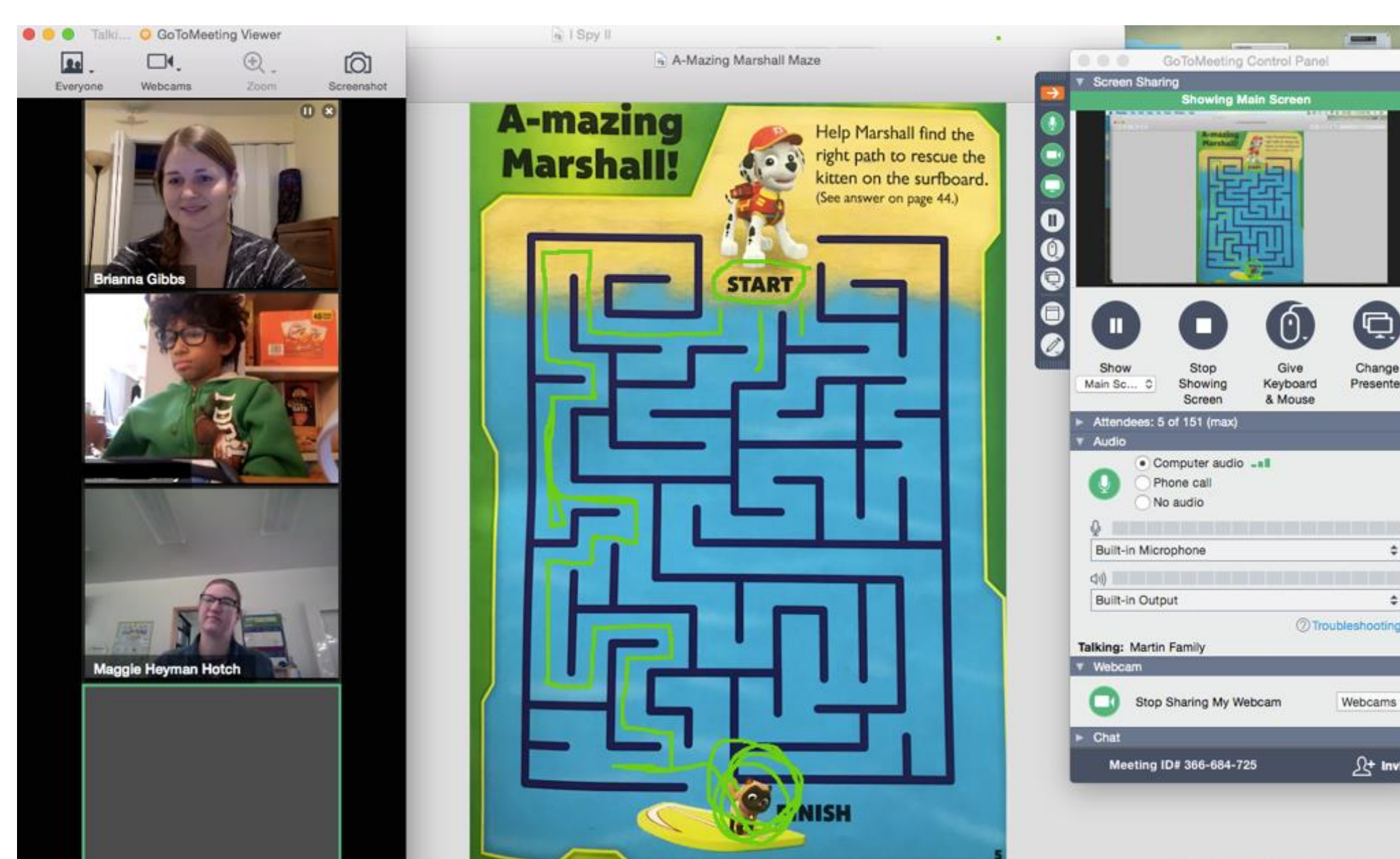
Can telehealth be used to deliver effective interventions for children experiencing autism spectrum disorder (ASD)?

## METHODS

The client was initially seen in January during an in-person evaluation in his home to note progress after 6 months of combined in-person and telehealth intervention services. Following that initial visit he received 10 weeks of occupational therapy services delivered via telehealth by a doctoral occupational therapy student under the guidance of a licensed occupational therapist.

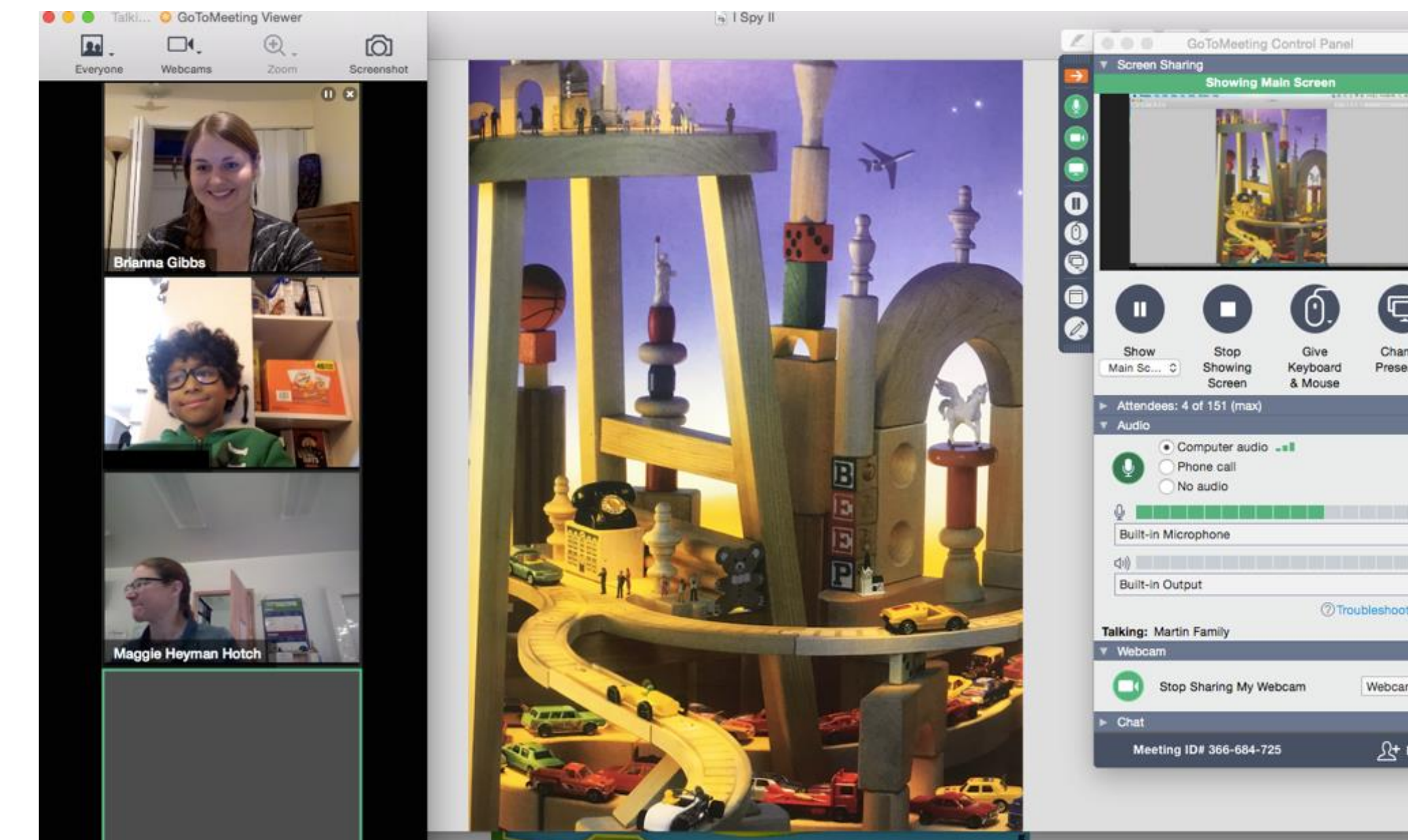


Interventions addressed therapeutic goals related to fine motor skill development, social cognition, sensory processing, anxiety management, and visual motor integration. Sessions included activity modeling by occupational therapy student via webcam and screen sharing computer based activities with intermittent use of the pen tool for interactive collaboration. Interactive games, specifically ones familiar to client from in-person visits, were also provided via screen sharing and webcam use.



The client's parent was nearby or present during majority of sessions, which took place in his home on either a family laptop or iPhone. Parent education and coaching was provided throughout the 10 weeks, typically at the beginning or end of each session to address concerns from the previous week and provide strategies and coaching moving forward.

## RESULTS



The client's parent was provided with a "Telehealth Effectiveness and Satisfaction Survey" at the end of the 10-week intervention period. This survey was modeled after telehealth satisfaction surveys found in current literature (Polinski et al., 2015). Questions explored what the primary reason for choosing telehealth was, concerns about it, and preference for home visits used in addition to telehealth services. Questions related to satisfaction with the 10-week interventions utilized a 5-point Likert scale ranging from very dissatisfied to very satisfied. Further information on likelihood of using and recommending services was also asked on the survey. A goal-specific section of the survey allowed the parent to indicate satisfaction with progress on the client's specific occupational therapy goals related to the following:

- Fine motor skills
- Social cognition
- Sensory processing skills
- Cognitive behavioral skills and anxiety management
- Visual motor integration skills

Over the course of 10 weeks, the client's parent reported they were neither satisfied nor dissatisfied with progress toward fine motor goals; somewhat satisfied with progress toward social cognition goals; very satisfied with progress toward sensory processing goals; somewhat satisfied with progress toward cognitive behavioral skills and anxiety management goals; and somewhat satisfied with progress toward visual motor integration goals. Overall the client's parent reported they were very satisfied with the convenience of telehealth services, treatment plan, coaching they received, and quality of care received. They indicated that they would continue using telehealth services and recommend using them to someone else.

## BOTTOM LINE FOR OT

Telehealth is becoming an established practice area and could help meet the occupational therapy needs of individuals experiencing ASD in rural and underserved communities where access to healthcare services are limited.

In Alaska, 75% of communities are not connected to a hospital by a road system, which limits access to healthcare services for 25% of Alaskans, 46% of which identify as Alaska Native (Foutz, Cohen & Cook, 2016). Telehealth services can address these geographic challenges and provide evidence-based, quality occupational therapy services in ways that are convenient and affordable to families.



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