Digital intervention ups socialization in children with autism

March 26 2019

(HealthDay)—An artificial intelligence-driven wearable behavioral

intervention, Superpower Glass, can improve social outcomes for children with autism spectrum disorder (ASD), according to a study published online March 25 in *JAMA Pediatrics*.

Catalin Voss, from Stanford University in California, and colleagues conducted a randomized clinical trial in which 71 children aged 6 to 12 years with a formal ASD diagnosis were randomly assigned to either the Superpower Glass intervention plus the standard of care applied behavioral analysis therapy (40 children) or only applied behavioral analysis therapy (control, 31 children). Participants were asked to conduct 20-minute sessions with the Superpower Glass intervention in their homes four times a week for six weeks. By detecting facial expressions and providing reinforcing social cues, the intervention, deployed via Google Glass (worn by the child), and a smartphone app promote facial engagement and emotion recognition.

The researchers found that compared with controls, children receiving the intervention showed significant improvements on the Vineland Adaptive Behaviors Scale socialization subscale (mean treatment impact, 4.58; P = 0.005). For the other three primary measures, there were positive mean treatment effects but not to a significance threshold of P = 0.0125.

"The intervention teaches children emotion recognition, facial engagement, and the salience of emotion, suggesting the potential for multiple mechanism(s) of action driving the observed improvement in social behavior," the authors write.

Several authors disclosed financial ties to Cognoa; several hold patents and were involved in discussions regarding licensing the patent and software enabling the Superpower Glass intervention to Cognoa.

More information: Abstract/Full Text