**Extended telepsychiatry outperformed primary care follow-up for ADHD**

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SAN DIEGO– Six telepsychiatry sessions cut symptoms by at least half for 46% of children with attention-deficit/hyperactivity disorder, compared with 13.6% of those who received one telepsychiatry session plus follow-up care by primary care providers, according to a randomized clinical trial.

The extended telepsychiatry intervention consistently outperformed primary care for attention-deficit/hyperactivity disorder (ADHD), including in subgroups of children with ADHD alone, comorbid anxiety disorders, oppositional defiant disorder, or both, said Dr. Carol M. Rockhill of Seattle Children’s Hospital. “We do think the results of this study justify a more extended consultation model. A single visit is not enough for a child to be stabilized,” she said at the annual meeting of the American Academy of Child and Adolescent Psychiatry.

Attention-deficit hyperactivity is one of the most common disorders of childhood, and children in rural areas often lack access to appropriate care. The Children’s ADHD Telemental Health Treatment Study ([CATTS](http://depts.washington.edu/catts/whatis.php)) included 223 children with ADHD and their primary caregivers at seven underserved sites in Washington and Oregon. The primary outcome was a 50% reduction in ADHD symptoms, “an ambitious goal,” Dr. Rockhill said. Average age of the patients was 9 years, and they did not have serious comorbid diagnoses such as autism, bipolar disorder, or conduct disorder, she said. In all, 18% of children had a diagnosis of ADHD alone, while the rest also had at least one comorbid psychiatric disorder, she said.

For the study, the intervention arm received a total of six telepsychiatry sessions provided by interactive televideo with psychiatrists at Seattle Children’s Hospital. All sites had high bandwidth connectivity, and equipment that could pan, tilt, and zoom, Dr. Rockhill said. “It was nice to really be able to see the parents and caregivers well,” she added. Children received medication management, and caregivers were trained on managing behaviors of ADHD.

The control arm received a single telepsychiatry session and follow-up care by primary care providers. Parents in both groups used the [Vanderbilt Assessment Scale](http://www.uwmedicine.org/neighborhood-clinics/Documents/03VanAssesScaleParent%20Infor.pdf) to rate children’s behavior throughout the study, Dr. Rockhill said.

The researchers also compared telepsychiatry strategies to those from the Texas Children’s Medication Algorithm Project, which provides consensus guidelines for children with ADHD alone or with comorbid anxiety, depression, tics, or aggression, Dr. Rockhill said. Telepsychiatrists most often used the first algorithm, suggesting that they focused on ADHD symptoms even if children had comorbidities, she reported. In more than 98% of cases, telepsychiatrists chose the same initial algorithm as did study reviewers. Psychiatrists most commonly prescribed methylphenidate alone, followed by amphetamine alone. Among 574 telepsychiatry sessions, there were 29 protocol violations, which most often consisted of changing the algorithm order or combining medications, she added.

Children with comorbidities were more likely to have their medications changed, but this did not translate to greater clinical improvement, Dr. Rockhill said. “The kids who did achieve a 50% reduction in symptoms and had two comorbidities had an average of 2.4 medication changes, compared with 3.2 changes for children who did not meet the treatment target,” she said. “Comorbidity makes achievement of a 50% improvement in symptoms more challenging, and is associated with more complex medication strategies, including more changes in medication and more use of polypharmacy.”

In fact, the rate of polypharmacy more than tripled during the course of the study, Dr. Rockhill said. At the beginning of the trial, 13% of children had been prescribed more than one medication, compared with 41.5% at the end. In most cases, polypharmacy consisted of prescribing one stimulant and one nonstimulant.

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