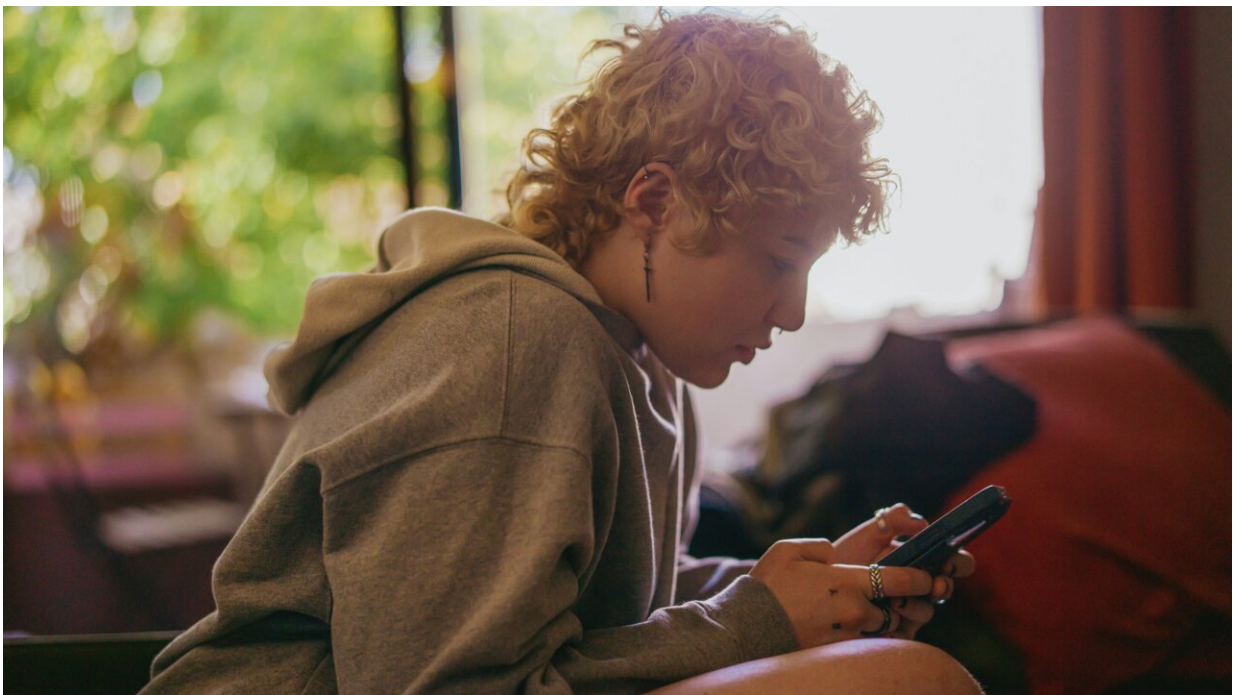


Sweeping review reveals latest evidence on the diagnosis, treatment, and monitoring of ADHD

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Hundreds of studies are published each year on attention deficit hyperactivity disorder (ADHD), but more work is needed to ensure those findings improve lives.

With input from expert stakeholders across the field, researchers at the Southern California Evidence Review Center, part of the Keck School of Medicine of USC, have synthesized the latest insights so that they can ultimately inform [clinical practice](#). Broadly, they found that both medications and psychosocial treatments work for treating ADHD and that children with the condition can and do get better.

"We have more research than ever on ADHD, but we need to summarize it in a reliable and valid way," said Susanne Hempel, Ph.D., a professor of clinical population and public health sciences at the Keck School of Medicine and director of the Southern California Evidence Review Center, who oversaw the work.

The team, which included researchers from the Southern California Evidence-based Practice Center, the Keck School of Medicine's division of child psychiatry and the Children's Hospital Los Angeles Behavioral Health Institute, reviewed more than 23,000 publications on ADHD. Their work was commissioned by the Agency for Healthcare Research and Quality.

The results, published in two [companion papers](#) in the journal *Pediatrics*, answer big questions about what works to effectively diagnose and treat ADHD, and point to ongoing gaps in the research, including how best to monitor the condition's progression over time. Clinicians selected by the American Academy of Pediatrics (AAP) will now use the evidence review to create updated clinical guidelines that inform best practices in ADHD care across the nation.

"Parents, teachers and providers need evidence-based information about ADHD," Hempel said. "We included only the most robust studies in our review, which enables us to make strong evidence statements."

New findings on diagnosis and treatment

Before beginning the literature review, the research team developed their [questions and protocols](#) in collaboration with ADHD experts across the field to ensure they were asking and answering questions that could directly benefit patients, families and providers. During the process, the researchers also posted their preliminary findings and welcomed feedback during a 45-day public comment period.

The team conducted an extensive search that was not restricted to diagnostic tools or treatment approaches already known to be effective. From more than 23,000 publications, the researchers selected 550 studies for the final analysis. Studies were selected if they met the team's rigorous inclusion criteria, which prioritized rigorous study designs such as randomized controlled trials.

For diagnosis of ADHD, many tools are available, including parent and teacher rating scales, patient self-reports, neuropsychological tests, EEG approaches, imaging, biomarkers, activity monitoring and observation. For several approaches, the researchers found a substantial variation in results, with some studies indicating a given method was highly effective and others indicating that it performed poorly.

"We're getting better at diagnosing ADHD, but research is still characterized by a lot of variation," Hempel said.

Many treatments for ADHD have been rigorously tested, building a strong evidence base for medications (including both stimulants and non-stimulants), as well as psychosocial approaches, such as [behavior modification](#). Other non-drug treatments the team analyzed include cognitive training, neurofeedback, [physical exercise](#), nutrition and supplements, parent support, and school interventions.

"Medications have the strongest evidence for improving not only ADHD symptoms, but also other problems that often accompany ADHD, such

as oppositional and disruptive behaviors," said Bradley Peterson, MD, director of the Institute for the Developing Mind at Children's Hospital Los Angeles (CHLA) and the lead author of the review.

Monitoring ADHD over time

In addition to reviewing the evidence on diagnosis and treatment, the researchers explored what is known about ongoing monitoring of ADHD: How can providers assess whether a child or adolescent needs to continue treatment for the condition? Experts across the field agreed that the question is a critical one, but few studies have explored the question. The [evidence review](#) team concluded that more research is needed on monitoring ADHD over time.

The publications will now be used to support an update of the AAP's [clinical practice guidelines for ADHD](#), providing up-to-date advice for how best to diagnose, evaluate and treat the condition.

"The overarching takeaway: ADHD is treatable. There are lots of studies that can show us that children absolutely can get better," Hempel said.

More information: Bradley S. Peterson et al, Treatments for ADHD in Children and Adolescents: A Systematic Review, *Pediatrics* (2024). [DOI: 10.1542/peds.2024-065787](https://doi.org/10.1542/peds.2024-065787)

Bradley S. Peterson et al, Tools for the Diagnosis of ADHD in Children and Adolescents: A Systematic Review, *Pediatrics* (2024). [DOI: 10.1542/peds.2024-065854](https://doi.org/10.1542/peds.2024-065854)

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