

Research shows severity of ADHD not key signifier of academic success

June 30 2022



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Research co-led by Te Herenga Waka—Victoria University of Wellington educational psychologist Dr. Kelly Carrasco shows the severity of ADHD (attention-deficit / hyperactivity disorder) symptoms

isn't a key signifier of academic success for children with ADHD.

Published in the *Journal of Attention Disorders*, the study included four sample sets of data, two of which were from clinically referred [children](#) in Aotearoa New Zealand, and two community samples of American children, recorded at Okinawa Institute of Science and Technology (OIST) in Japan. In total, data from 434 children was analyzed to ascertain the impact that their ADHD symptoms had on their [academic success](#).

"Ultimately, what we found is that ADHD [symptom](#) severity doesn't seem to be playing a significant impact in terms of academic knowledge for children with ADHD. Instead, it is a child's verbal working [memory skills](#) and [language skills](#) that are more important predictors of academic success," says Dr. Carrasco, who collaborated with Associate Professor Chi-Ching Chuang from the University of Taipei and Professor Gail Tripp from OIST on the paper.

"ADHD symptoms impact the school performance side of the young person's life, but not necessarily what they know, or their ability to learn. It's these other factors, which impact all types of kids, that play a bigger role."

Modern learning environments give "many opportunities to be off task," which is challenging for students, including those with ADHD. "But the good news is that it isn't ADHD itself that causes children not to learn effectively, it is the classroom expectations in which we are asking kids to show what they know. That's where symptoms get in the way," says Dr. Carrasco.

The data allowed them to look at language skills, visual short term and working memory, and processing speed, and how they impacted on reading comprehension, spelling, and math calculation skills.

In the two samples from Aotearoa New Zealand, the first sample included 6 Māori children (6.8%) out of the wider sample of 88 children; the second sample included 9 Māori children (7.4%) out of the wider sample of 121.

The researchers knew from other academic literature that working memory is an important factor for a lot of academic subjects. "It is a good idea for teachers to have an understanding of children's working memory, because it is something that can be easily accommodated. Teachers just need to break their instructions down into smaller chunks.

"Instead of giving multiple verbal instructions at a time and hoping all the kids get it the first time, break the instructions down, and perhaps combine them with written instructions as well, and check comprehension as you go."

Dr. Carrasco also says that project-based work can be overwhelming for students with limited working memory, so teachers should be mindful that some learners will need projects to be presented in segments.

"One thing I can't stress enough when working with kids with ADHD is the need to give lots of positive feedback. These kids tend to receive a lot of negative feedback from both adults and peers, especially if they have hyperactive symptoms, so we need to counterbalance that with lots of positive feedback."

She is aware that schools are in an incredibly difficult position, trying as they are to create environments that cater to every child that walks in.

"But if [teachers](#) are aware of these things, they can ensure reasonably easy things are in place, like designating areas for quiet work, and ensuring students with additional needs are never uncertain about what they're supposed to be working on."

More information: Kelly D. Carrasco et al, Shared Predictors of Academic Achievement in Children with ADHD: A Multi-Sample Study, *Journal of Attention Disorders* (2021). [DOI: 10.1177/10870547211012039](https://doi.org/10.1177/10870547211012039)

Provided by Victoria University of Wellington

Citation: Research shows severity of ADHD not key signifier of academic success (2022, June 30) retrieved 27 April 2024 from <https://medicalxpress.com/news/2022-06-severity-adhd-key-signifier-academic.html>

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