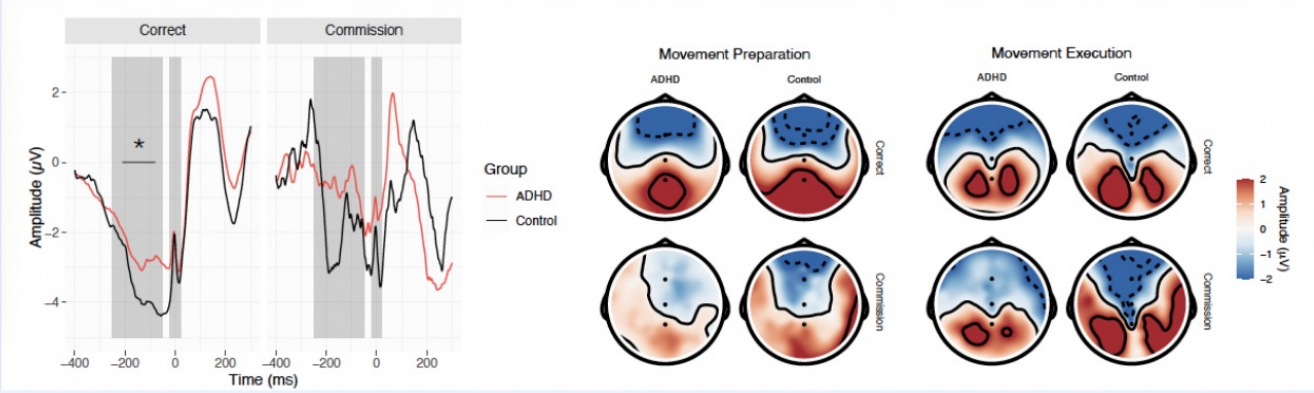
ARNETT LAB

Newsletter

ARNETT LAB
BOSTON CHILDREN'S HOSPITAL

Boston Children's Hospital
Laboratories of Cognitive Neuroscience



Left: Event Related Potentials (ERP) showing reduced cortical activity just before a correct button press in children with ADHD. Right: Scalp topography showing lower scalp amplitude in the motor cortex in children with ADHD. Correct=correct response; Commission=incorrect response.

RESEARCH FINDINGS

Motor control difficulties are highly common in ADHD, but the brain mechanisms are not well understood. In our recent study, we tested whether motor difficulties in children with ADHD occur during movement preparation, execution, or both. We measured visual-motor skills and brain activity using EEG in 66 children with ADHD and 30 typically developing children, ages 7–11. We found that children with ADHD performed less accurately on motor and visual-motor tasks. They also showed reduced cortical brain activity during movement preparation (i.e., just before a movement) but not execution (i.e., as they were performing the movement) - see Figure above. Our results suggest that children with ADHD may benefit from targeted motor interventions that focus on planning and preparation.
Read the full article here: https://doi.org/10.1016/j.clinph.2025.03.045

MEET THE TEAM

Tanya Gaytan joined the Arnett Lab in 2025 as a Clinical Research Assistant. She graduated from Barnard College of Columbia University in 2024 with a B.A. in psychology. After graduating, she worked under Dr. Julie Herbstman at the Columbia Center for Children's Environmental Health researching the impact of prenatal exposure to environmental pollutants on infant neurodevelopment. In addition to research, she has clinical experience working with children with ASD and Selective Mutism.Tanya is determined to reduce racial disparities in ADHD and ASD diagnosis and treatment in the Latinx community. She plans to become a clinical psychologist and work with children with learning disabilities

CONTACT INFORMATION

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CURRENTLY RECRUITING

The PUMAA Study is currently seeking:
- 11-13 and 15-17 year olds with ADHD

The RACCOON Study is currently seeking:
- 7-11 year old typically developing "control" children

The **Genomics** Study is currently seeking:
- 4-17 year old children with ADHD

Scan the QR code for more information on our current studies:

Boston Children's Hospital
Where the world comes for answers