Variability of kinematic graphomotor fluency in adults with ADHD

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Abstract
Although graphomotor differences and variability of performance have been observed in children with attention deficit hyperactivity disorder (ADHD), no study has investigated whether this variability manifests in the kinematic graphomotor domain in adults with ADHD. Fourteen ADHD and 20 control participants wrote a novel grapheme and common word on a digitizing tablet 30 times each, with ADHD participants counterbalanced on and off stimulant medication. Variability of graphomotor fluency was significantly greater in ADHD versus control participants only in the novel writing task, both on, $F(1, 31) = 5.988$, $p = .020$, and off stimulant medication, $F(1, 32) = 8.789$, $p = .006$. Results suggest that motor control differences in ADHD are not limited to childhood and extend into adulthood. Given sufficient additional research, variability of kinematic graphomotor fluency may increase the sensitivity/specificity of differential diagnoses and/or represent a biomarker for ADHD.