

# Diagnostic, Demographic, and Neurocognitive Correlates of Dysgraphia in Students with ADHD, Autism, Learning Disabilities, and Neurotypical Development

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## Abstract

The importance of diagnostic, demographic, and neurocognitive correlates of dysgraphia in 1006 students 6–16 years was determined. Children with ADHD or autism ( $n = 831$ ) and neurotypical children ( $n = 175$ ) were administered the Developmental Test of Visual-Motor Integration (VMI), Wechsler subscales, and reading and math tests. IQ was the strongest correlate of dysgraphia (VMI scores), followed by diagnosis (ADHD/autism vs. neurotypical). Visual-fine motor ability was the only other significant correlate. Verbal and visual reasoning ability, processing speed, working memory, attention, reading, and math did not contribute significantly more to concurrently predicting dysgraphia, nor did age, sex, race, and parent occupation. Dysgraphia was common in children with ADHD (56%) and autism (56%), especially those with a learning disability in reading (71%) or math (72%). The study demonstrates the importance of controlling for both IQ and diagnosis when examining factors related to dysgraphia, which previous studies have not done. Students with ADHD, autism, learning disability, or fine motor problems should be evaluated for dysgraphia because the majority of students with any one of these problems will have impaired handwriting, which needs to be identified and addressed in school. Effective accommodations to compensate for dysgraphia are available to help avoid its negative repercussions.