# Inhibition in Attention-Deficit/Hyperactivity Disorder: Binomial Logistic Regressions of Self-Report and Performance-Based Measures

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## Introduction

Current literature states that performance-based measures account for little unique variance in determining attention-deficit/hyperactivity disorder (ADHD) diagnoses. Specifically, there are some performance-based measures in which ADHD individuals either test statistically lower than their non-ADHD counterparts or their test scores do not demonstrate symptom domain specificity. Literature also states that performance-based and self-report measures of inhibition hold little correlation in diagnosing ADHD. Research is also based mostly in pediatric populations.

## Objective

This study aims to clarify the relationship between self-report and performance-based measures of cognitive, behavioral, and emotional inhibition in diagnosing ADHD and related disorders in adult outpatient individuals.

## Methods

78 participants referred for outpatient neuropsychological evaluation for differential diagnosis of ADHD were used. Binomial logistic regressions were used to explore the predictive relationship of inhibition to ADHD as measured by Trail Making Test—Part B (TMT-B), discriminability index of the Conners' Continuous Performance Test—Second Edition (CPT-II), and Behavior Rating Inventory of Executive Function—Adult (BRIEF-A) Inhibition subscale. Pearson correlations were calculated to determine linear relationships between measures.

BRIEF-A Inhibition

Trails-B (w/ co-morbid depression and anxiety)
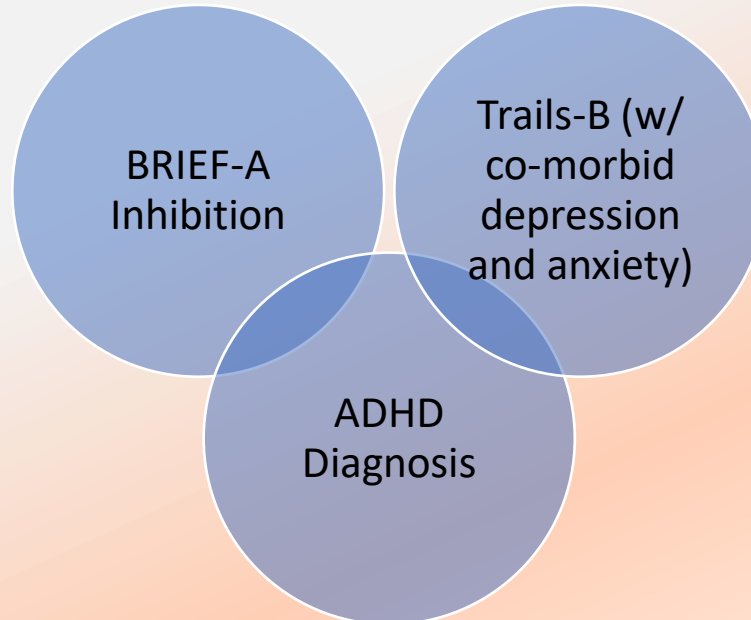
ADHD Diagnosis

## Results

BRIEF-A Inhibition subscale was the sole variable of significance ($p = .043$) when predicting ADHD without co-morbid diagnoses, with the model accurately classifying 60.3% of standalone ADHD diagnoses. Conversely, TMT-B scores were the sole variable of significance ($p = .044$) when predicting ADHD with co-morbid depression *and* anxiety, with the model accurately classifying 68.9% of co-morbid diagnoses. No measures significantly predicted ADHD with co-morbid depression *or* anxiety. Only the BRIEF-A Inhibition subscale and the CPT-II discriminability index held a significant correlational relationship ($r = -.225$, $p = .026$).

## Conclusions

As is consistent with current literature, performance-based cognitive measures contributed little predictive power in diagnosing standalone ADHD in adults. However, TMT-B demonstrated significant predictive power when patients also demonstrated clinically significant depression *and* anxiety – perhaps suggesting a compound effect. Self-report and performance-based inhibition measures held minimal correlation.

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