of EF Across Diagnoses in Clinically-Referred Individuals

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Objective: Neurobiological and cognitive theories implicate deficits in executive function (EF) as a core facet of both depressive disorders and attention-deficit/hyperactivity disorder (ADHD), but empirical investigations inconsistently support this conclusion. Despite recognition of the likely bi-directional relationship of EF deficits to depression and ADHD, respectively, the extent to which comorbid depression might impact EF in adults remains unclear, considering more of the literature has examined children and adolescents. This study examined performance differences on EF measures in clinically-referred adults diagnosed with ADHD or a non-ADHD primary psychopathological condition in the presence/absence of comorbid depression.
Participants and Methods: This cross-sectional study included data from 404 adults referred for neuropsychological evaluation at a Midwestern academic medical center. In total, 343 met DSM-5 diagnostic criteria for ADHD (ADHD-all group:164 Predominantly Inattentive presentation [ADHD-I] and 179 Combined presentation [ADHD-C]) and 61 met criteria for a non-ADHD primary psychopathological condition (psychopathology group: 31 mood disorder, 17 anxiety disorder, and 13 posttraumatic stress disorder) when assessed via semi-structured clinical interview. All patients completed the Beck Depression Inventory-Second Edition (BDI-II) and five EF tests: Letter Fluency, Trail Making Test–Part B (Trails-B), Stroop Color and Word Test Color-Word trial (SCWT CW); and WAIS-IV Working Memory Index (WMI). One-way MANOVAs assessed for significant EF differences between groups with high (BDI-II greater than or equal to 20) or low (BDI-II less than or equal to 19) depressive symptoms.
Results: When group diagnosis (ADHD-all vs. psychopathology) was examined in the context of high or low depression, a significant difference in EF performance emerged between groups, $F(12, 1042.72)=2.44$, $p<.01$, Wilk's $\Lambda=.93$, partial $\eta2=.02$, with univariate analyses indicating a significant difference in FAS-T between at least two of the groups ($F(3, 397)=3.92$, $p< .01$, partial $\eta2=.03$). Tukey's HSD Test for multiple comparisons found that the mean value of FAS-T was significantly different between the ADHD-high depression and ADHD-low depression groups ($p=.046$, 95% CI = [-5.81, -.04]) as well as between the ADHD-low depression and psychopathology-high depression groups ($p=.05$, 95% CI = [-8.89, .00]). A one-way MANOVA examining differences between groups when distinguishing ADHD by subtype revealed a statistically significant difference in EF performance between groups, $F(20, 1301)=1.85$, $p<.05$, Wilk's $\Lambda=.91$, partial $\eta2=.02$, with univariate analyses indicating a statistically significant difference in FAS-T between at least two of the groups ($F(5, 395) = 2.39$, $p<.05$, partial $\eta2 = .03$). However, Tukey's HSD Test for multiple comparisons found that the mean value of FAS-T was not significantly different between any of the groups.
Conclusions: Overall, results indicate that clinically-referred patients with ADHD perform comparably on tests of EF regardless of the presence or absence of comorbid depression. These findings have implications for conceptualizing EF weaknesses in neuropsychological profiles for individuals with ADHD and suggest examining factors beyond comorbid depression.

Categories: ADHD/Attentional Functions
Keyword 1: attention deficit hyperactivity disorder
Keyword 2: executive functions
Keyword 3: depression
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34 Attention-Deficit/Hyperactivity Disorder, Emotion Regulation, and Executive Functioning Associated with Educational and Occupational Outcomes in Adults

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https://doi.org/10.1017/S1355617723008093 Published online by Cambridge University Press

Objective: While attention-deficit/hyperactivity disorder (ADHD) symptoms, including inattention, hyperactivity, and impulsivity, are normally distributed within the population, features of ADHD have been associated with poor functional outcomes across various domains of life, such as academic achievement and occupational status. However, some individuals with even strong ADHD features show normal or above-average success within these functional domains. Executive dysfunction and emotion regulation abilities are associated with educational attainment and occupational status and may therefore explain some of the heterogeneity in functional outcomes in individuals with mild, moderate, and high levels of ADHD symptoms. In this study, we investigated whether emotion regulation strategy use (i.e., emotion suppression or cognitive reappraisal) and executive function abilities moderate the relationship between ADHD symptoms and occupational status and education attainment in adults.
Participants and Methods: Data were collected from 109 adults aged 18 – 85 (M = 38.08, SD = 15.54; 70.6% female) from the Nathan Kline Institute Rockland Sample. All participants completed measures of ADHD symptoms (Conners Adult ADHD Rating Scale), emotion regulation strategy use (Emotion Regulation Questionnaire), and executive functioning (composite scores of inhibition, shifting and fluency from the standardized Delis-Kaplan Executive Function System). In this study, executive function abilities and emotion regulation strategy use were tested as potential moderators of the relationship between ADHD symptoms and functional outcomes using hierarchical regression models.
Results: Several two- and three-way interactions predicting occupational status and educational attainment were observed. Education attainment was predicted by hyperactivity and reappraisal (ß = -0.26, p = .006); inattention, shifting, and reappraisal (ß = -0.52, p = .029); inattention, shifting, and suppression (ß = -0.40, p = .049); inattention, fluency, and reappraisal (ß = 0.24, p = .038); hyperactivity, fluency, and reappraisal (ß = 0.27, p = .034); and impulsivity, fluency, and reappraisal (ß = 0.44, p = .004). Occupational status was predicted by inattention and reappraisal, (ß = -0.27, p = .032), hyperactivity and reappraisal (ß = -0.26, p = .004); and impulsivity, fluency, and reappraisal (ß = 0.35, p = .031). Fluency was positively associated with educational attainment when controlling for inattention and impulsivity.
Conclusions: Consistent with the hypothesis, the association between ADHD symptoms and both occupational status and educational attainment were moderated by the interaction between emotion regulation strategy use, executive function abilities domains. The observed interactions suggest that both occupational status and educational attainment may depend heavily on one's intrinsic abilities and traits. Contrary to previous literature, we found no evidence that ADHD symptoms, emotional regulation strategies were independently associated with either educational attainment or occupational status, but this should be validated in a sample with greater representation of adults with clinically significant ADHD.

Categories: ADHD/Attentional Functions
Keyword 1: executive functions
Keyword 2: emotional processes
Keyword 3: everyday functioning
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35 Social Media Use Relates to Beliefs about Attention-Deficit/Hyperactivity Disorder (ADHD) Among Emerging Adults

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Objective: There has been a surge in individuals seeking neuropsychological assessment for attention-deficit/hyperactivity disorder (ADHD) after watching social media created by people claiming to have ADHD. While online content may promote destigmatization of ADHD, self-diagnoses derived from social media use may contribute to the development of inaccurate illness beliefs. Individuals who feel strongly connected to social media that mentions personal anecdotes of ADHD might be more likely to believe they also have ADHD. We examined associations between social media search for ADHD and beliefs about everyday experiences being diagnostic of ADHD among adults concerned

https://doi.org/10.1017/S1355617723008093 Published online by Cambridge University Press