**Title**: Attention is Key: ADHD as a mediator between Adverse Childhood Experiences (ACEs) and Academic Underachievement

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**Background**: ACEs represent a spectrum of exposures to various physical and psychosocial stressors in the childhood period that negatively impact the neurodevelopmental, physical, mental, and social-emotional health of patients. These stressors may also have long-lasting impacts on one’s social, occupational, and academic functioning, and contribute to several neurobehavioral *symptoms*, such as inattention, hyperactivity, and impulsivity. Much of the current literature exploring the relationship between deficits in attention and academic underachievement show that attention is a highly significant predictor for academic achievement. These same deficits in attention may reflect a common manifestation of exposure to ACEs and underlie several of the academic difficulties with which ACEs have already been associated. While previous secondary data analyses in the literature point to a graded relationship between exposure to ACEs and the subsequent development of parent-reported ADHD, less clear are the *mediating* pathways through which ACEs influence the long-term psychosocial functioning of youth exposed to ACEs.

**Objectives**: The purpose of the study is to test a model of mediation by ADHD between ACEs and academic achievement. The model will explore whether ADHD symptoms serve as a mediator between ACEs and academic underachievement. The hypothesis is that ACEs are predictive of increased severity of inattentive, hyperactive, and impulsive symptoms, which in turn are predictive of academic underachievement. Furthermore, it is hypothesized that these ADHD symptoms mediate the relationship between ACEs and academic underachievement in high school.

**Methods**: We will utilize data obtained from the Longitudinal Study on Child Abuse and Neglect (LONGSCAN) that followed children from age 4 through age 18 years (N=728). This is a secondary cohort analysis utilizing data from the LONGSCAN, which is a consortium of data from five clinical centers exploring the etiology and impact of child maltreatment from birth through young adulthood. Bivariate and multivariate regressions will be conducted. The predictor variable is the total number of ACEs between ages 0 to 14 years (based on interview report, questionnaires, and Child Protective Services data). The mediating variable is the number of ADHD symptoms at age 14 years (based on diagnostic interviews). The primary outcome variable is academic achievement in high school as measured by performance on the Reading Subsection of Wide Range Achievement Test (WRAT-3) at age 16 years.