

Mortality and ADHD in Adults With Childhood ADHD

Source: Barbaresi WJ, Colligan RC, Weaver AL, et al. Mortality, ADHD, psychosocial adversity in adults with childhood ADHD: a prospective study. *Pediatrics*. 2013;131(4):637-644; doi:10.1542/peds.2012-2354

Investigators from Harvard, Mayo Clinic, and Baylor College of Medicine sought to examine the long-term outcomes for adults diagnosed with attention-deficit/hyperactivity disorder (ADHD) in childhood. For the study, the investigators reviewed medical and school records on a cohort of adults who had been born in Rochester, Minnesota between 1976 and 1982 and who granted permission for the review of their records. Individuals in the cohort were classified as having a diagnosis of childhood ADHD or no ADHD based on predefined criteria. Vital statistic data including overall mortality, cause-specific mortality, and rates of incarceration were collected on study participants. Standardized mortality ratios (SMR) were compared in those with and without a childhood diagnosis of ADHD. In addition, all of those members of the cohort with a childhood diagnosis of ADHD and a random sample of those without ADHD were invited to participate in a prospective assessment consisting of a standardized neuropsychiatric interview to identify the presence of current psychiatric conditions, including persistent symptoms of ADHD. Rates of psychiatric conditions in participants with and without childhood ADHD were compared.

A total of 5,718 individuals granted permission for the record review. Of these, 367 were identified with childhood ADHD; 1.9% of individuals with ADHD were deceased and 2.7% were incarcerated. The SMRs for individuals with childhood ADHD compared to adult controls for all causes of death was 1.88 (95% CI, 0.83-4.26; $P = .13$) and for death by accident was 1.70 (95% CI, 0.49-5.97; $P = .41$); neither reached statistical significance. However, the SMR for suicide was 4.83 (95% CI, 1.14-20.46; $P = .032$) in ADHD cases.

In the prospective assessments, 232 individuals with ADHD and 335 controls were enrolled; 29.3% of those with childhood ADHD met criteria for symptoms of ADHD as adults. Participants with childhood ADHD were significantly more likely than controls to have 1 or more comorbid psychiatric conditions (56.9% vs 34.9%; $P < .01$). The most common comorbid conditions were alcohol dependence and abuse, antisocial personality disorder, other substance abuse, and anxiety disorders. Participants with ADHD that persisted into adulthood were significantly more likely to have 1 or more comorbid psychiatric conditions than in those in whom ADHD did not persist (80.9% vs 47.0%; $P < .001$).

The authors conclude that childhood ADHD is a chronic health problem with significant long-term morbidity and mortality.

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Question: Among adults diagnosed with ADHD during childhood, how do rates of mortality due to accidents and suicide, incarceration, persistence of ADHD into adulthood, and comorbid psychiatric conditions compare to those of adults without childhood ADHD?

Question type: Prognosis

Study design: Prospective cohort

Commentary by

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Dr Wardrop has disclosed no financial relationship relevant to this commentary. This commentary does not contain a discussion of an unapproved/investigative use of a commercial product/device.

In an era in which the prevalence of chronic conditions such as kidney disease, diabetes mellitus, cardiovascular disease, and obesity is increasing among younger persons, there is much consternation among adult health care providers regarding the impact these childhood diseases have on the well-being of those who are transitioning to adulthood. ADHD, the most commonly encountered neurodevelopmental disorder of childhood, can clearly be categorized as one of these diseases. In this regard, the current study is both important and timely, underscoring the need to better understand the long-term impact of childhood ADHD on adults.

As the authors indicate, “ADHD should no longer be viewed as a disorder primarily affecting the behavior and learning of children.” This has long been suspected from past studies that have examined the impact of ADHD that persists in adulthood and the prevalence of comorbid psychiatric conditions in adults with ADHD.^{1,2} The current study offers fresh insight into these areas using data from a large birth cohort. The results of this study show that a large proportion of children who suffer from ADHD (~30%) become adults with ADHD, and have an increased risk of comorbid psychiatric conditions and an increased risk of death by suicide. Thus, ADHD can be added to the ever-lengthening list of childhood disorders with important future health implications for adults, highlighting the need for improved treatment modalities for childhood ADHD.

References

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Key words: attention-deficit/hyperactivity disorder, mortality, suicide

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Continuing Thoughts — Evidence eMended*



*emend — from the Latin (c. 1400), “to free from fault”; to improve by critical editing

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