

Common psychiatric and metabolic comorbidity of adult attention-deficit/hyperactivity disorder: A population-based cross-sectional study

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Abstract

Attention-deficit/hyperactivity disorder (ADHD) is often comorbid with other psychiatric conditions in adults. Yet, less is known about its relationship with common metabolic disorders and how sex and ageing affect the overall comorbidity patterns of adult ADHD. We aimed to examine associations of adult ADHD with several common psychiatric and metabolic conditions. Through the linkage of multiple Swedish national registers, 5,551,807 adults aged 18 to 64 years and living in Sweden on December 31, 2013 were identified and assessed for clinical diagnoses of adult ADHD, substance use disorder (SUD), depression, bipolar disorder, anxiety, type 2 diabetes mellitus (T2DM), and hypertension. Logistic regression models and regression standardization method were employed to obtain estimates of prevalence, prevalence difference (PD), and prevalence ratio (PR). All comorbid conditions of interest were more prevalent in adults with ADHD (3.90% to 44.65%) than in those without (0.72% to 4.89%), with the estimated PRs being over nine for psychiatric conditions ($p < 0.001$) and around two for metabolic conditions ($p < 0.001$). Sex differences in the prevalence of comorbidities were observed among adults with ADHD. Effect modification by sex was detected on the additive scale and/or multiplicative scale for the associations of adult ADHD with all comorbidities. ADHD remained associated with all comorbidities in older adults aged 50 to 64 when all conditions were assessed from age 50 onwards. The comorbidity patterns of adult ADHD underscore the severity and clinical complexity of the disorder. Clinicians should remain vigilant for a wide range of psychiatric and metabolic problems in ADHD affected adults of all ages and both sexes.