
ASSOCIATION BETWEEN ADOLESCENT SUBSTANCE-RELATED DISORDERS AND ADHD WITH AND WITHOUT COMORBID DEPRESSION, ANXIETY, AND CONDUCT PROBLEMS: A POPULATION-BASED BIRTH COHORT

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Objective: To evaluate the association between ADHD and substance-related disorder (SRD) with and without depression, anxiety, conduct disorder and oppositional defiant disorder (CD/ODD) by age 19 years in a population-based birth cohort.

Method: Among 5718 children in a population-based birth cohort, 343 ADHD cases and 712 age-sex matched non-ADHD controls were identified in a previous study employing medical and school records. Psychiatric diagnoses were abstracted from the medical records and collapsed into the 10 categories based on DSM-IV. The association between ADHD case status and SRD was summarized by hazard ratios (HR) and corresponding 95% CI estimated from a Cox proportional hazards model. The effects of three psychiatric disorders (depression, anxiety, CD/ODD) were evaluated separately by considering each as a time-dependent covariate in a Cox regression model.

Results: ADHD was significantly associated with an increased risk of SRD (HR=3.70, 95% CI 2.51-5.46) by age 19 years. This association was observed in both boys and girls (HR=3.69 and 3.95, respectively). Among the boys without depression, ADHD was associated with four-fold increased risk of SRD, while the association was not present among boys with depression (HR= 4.07 vs. 0.98). Likewise, the association (HR) between ADHD case status and SRD was 0.78 and 3.77, respectively, among boys with and without CD/ODD.

Conclusion: The adverse effect of ADHD on SRD is more apparent for those without depression and conduct problems than it is for those with such comorbidities.