

P01-306

ADHD, GENDER, AND PSYCHIATRIC COMORBIDITY IN A POPULATION-BASED BIRTH COHORT

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Introduction: ADHD is frequently associated with comorbid psychiatric disorders. However, epidemiologic studies in the general population are rare.

Objective: To evaluate associations between ADHD and comorbid psychiatric disorders using research-identified incident ADHD cases and population-based controls.

Method: Subjects included a birth cohort of all children born 1976-1982 remaining in Rochester, MN after age five (n = 5718). Among them we identified 379 ADHD incident cases and 758 age-sex matched non-ADHD controls, passively followed to age 19. Through a systematic, multistaged process, utilizing detailed, routinely collected data, all psychiatric diagnoses confirmed by medical professionals were identified (n=314 ADHD cases, n=712 controls with research authorization). For each psychiatric disorder, cumulative incidence rates for subjects with and without ADHD were calculated; corresponding hazard ratios (HR) adjusted for sex, mothers age/education, were estimated using a Cox model. Associations between ADHD status and Internalizing-Externalizing dimensions were estimated using odds ratios (OR).

Results: ADHD was associated with significantly increased risk for adjustment disorders (HR=3.82), conduct disorder/oppositional defiant disorder (HR=9.45), mood disorders (HR=3.57), anxiety disorders (HR=2.95), tic disorders (HR=6.41), eating disorders (HR=5.52), personality disorders (HR=5.49), and substance-related disorders (HR=4.04). When psychiatric comorbidities were classified on the Internalizing-Externalizing dimension, ADHD was strongly associated with coexisting internalizing/externalizing (OR=10.6, vs none), and externalizing-only (OR=10.0), disorders. No significant gender x ADHD interactions were observed.

Conclusion: This population-based study confirms that children with ADHD are at significant risk for co-morbid psychiatric disorders. Besides treating the ADHD, clinicians should assess and monitor potential psychiatric comorbidities in children with ADHD.