

Mediating pathways from childhood ADHD to adolescent tobacco and marijuana problems: roles of peer impairment, internalizing, adolescent ADHD symptoms, and gender

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Abstract

BACKGROUND:

We examined whether increased risk for adolescent tobacco and marijuana problems associated with childhood ADHD is explained by key intermediary influences during adolescence and differs by gender.

METHODS:

Longitudinal structural equation models examined mediating effects on problems with both substances (or each substance separately) through age-14 peer impairment, internalizing, and adolescent ADHD symptoms in two twin samples, prospectively assessed since age 11 (N = 2,164). Whether these mediators contributed beyond mediating effects of early-adolescent substance use was also considered. Twin difference analyses further illuminated which mediators might be potentially causal.

RESULTS:

Direct effects of childhood ADHD on age-17 tobacco and marijuana problems (i.e., independent of included mediators) as well as effects of adolescent ADHD symptoms were significant only for females. By contrast, mediation by peer impairment, evident particularly for marijuana, was relatively stronger for males than females. Depression and anxiety were not prospectively associated with age-17 substance problems when earlier substance problems were considered. Consistent with causal influence of early substance use on later problems, monozygotic twins with more severe tobacco or marijuana problems at age 14 than their co-twins were also more likely to have substance problems later in adolescence.

CONCLUSIONS:

Mediation through peer impairment, continued presence of ADHD symptoms, and early substance use may alter development so that childhood ADHD indirectly contributes to problems with tobacco and marijuana. Targeting gender-sensitive interventions prior to mid-adolescence, before these patterns become established, is essential.