

Vol. 165 No. 4, April 2011

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Article

Secondhand Smoke Exposure and Mental Health Among Children and Adolescents

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Arch Pediatr Adolesc Med. 2011;165(4):332-338. doi:10.1001/archpediatrics.2011.30

Objective To examine a potential association between biologically confirmed **secondhand smoke** exposure and symptoms of *Diagnostic and Statistical Manual of Mental Disorders* (Fourth Edition) (*DSM-IV*) major depressive disorder, generalized anxiety disorder, panic disorder, attention-deficit/hyperactivity disorder, and conduct disorder using a nationally representative sample of US children and adolescents.

Design Nationally representative cross-sectional survey of the United States.

Setting Continental United States.

Participants Children and adolescents aged 8 to 15 years who participated in the National Health and Nutrition Examination Survey from 2001 to 2004.

Intervention Measurement of serum cotinine level to assess **secondhand smoke** exposure among non**smokers**.

Main Outcome Measures The *DSM-IV* symptoms were derived from selected modules of the National Institute of Mental Health's Diagnostic Interview Schedule for Children Version IV, a structured diagnostic interview administered by trained lay interviewers.

Results Among non**smokers**, serum cotinine level was positively associated with symptoms of *DSM-IV* major depressive disorder, generalized anxiety disorder, attention-deficit/hyperactivity disorder, and conduct disorder after adjusting for survey design, age, sex, race/ethnicity, poverty, migraine, asthma, hay fever, maternal smoking during pregnancy, and allostatic load. Associations with serum cotinine level were more apparent for boys and for participants of non-Hispanic white race/ethnicity.

Conclusions Our results are consistent with a growing body of research documenting an association between **secondhand smoke** exposure and mental health outcomes. Future research is warranted to establish the biological or psychological mechanisms of association.

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