Exposure to secondhand smoke in the home and mental health in children: a population-based study.

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Abstract
OBJECTIVES: To examine the association between exposure to secondhand smoke (SHS) in the home and mental health among children.

METHODS: Cross-sectional study of 2357 children representative of the Spanish population aged 4-12 years in 2011-2012. Duration of SHS exposure in children was reported by parents. Probable mental disorder was defined as a score >90th centile in the parental version of the Strengths and Difficulties Questionnaire (SDQ). Statistical analysis was performed with logistic regression and adjusted for sociodemographic variables, lifestyle, neighbourhood environment and family characteristics, including parental mental health.

RESULTS: Among study participants, 6.9% (95% CI 5.7% to 8.0%) were exposed to SHS in the home for <1 h/day and 4.5% (95% CI 3.5% to 5.5%) for ≥1 h/day. Compared to children not habitually exposed to SHS, the multivariate ORs for probable mental disorder were 1.49 (95% CI 0.85 to 2.62) for SHS exposure <1 h/day and 2.73 (95% CI 1.38 to 5.41) for SHS exposure ≥1 h/day (p for linear trend=0.002). The corresponding ORs for attention-deficit and hyperactivity disorder (ADHD) were 2.18 (95% CI 1.30 to 3.64) for <1 h/day exposure and 3.14 (95% CI 1.63 to 6.04) for ≥1 h/day exposure (p for linear trend <0.001). No association was found between SHS and the rest of the components of the SDQ.

CONCLUSIONS: Among children, SHS exposure in the home during ≥1 h/day is associated with a higher frequency of mental disorder. This association was mostly due to the impact of SHS on ADHD.