

## EXPOSURE TO SECONDHAND SMOKE AND NICOTINE DEPENDENCE

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**Purpose:** The purpose of this paper is to explore the influence of secondhand smoke (SHS) exposure on nicotine dependence and smoking cessation behaviors. Nicotine dependent smokers make significantly more quit attempts than non-nicotine dependent smokers but are less successful in remaining abstinent. SHS may be an important factor that influences smoking behaviors and nicotine dependence among smokers.

**Method:** A secondary analysis of existing data was conducted with 822 smokers who had participated in a controlled trial of the 2001 Quit and Win Tobacco-Free Contest in Kentucky. Measures included smoking status (i.e. light, moderate or heavy smokers), sources of SHS exposure (i.e. home, car, or both home and car), nicotine dependence (using the Fagerstrom Tolerance Questionnaire), and attempts and intentions to quit smoking. Correlational analysis was conducted to determine strength of associations between nicotine dependence and SHS exposure variables. Kruskal Wallis test was used to determine nicotine dependence scores by source of SHS exposure. Odds ratios were used to distinguish smoking cessation attempts and intentions based on SHS exposure. Multivariate regression analysis was employed to determine predictors of nicotine dependence.

**Findings:** Significant, albeit weak, associations were found between nicotine dependence and both number of days exposed at home ( $r = .12, p \leq .05$ ) and in the car ( $r = -.18, p \leq .001$ ). Individuals who reported both sources of exposure were less likely to have been successful in quitting for one day in the past year (OR = 0.69, 95% CL = 0.52-0.93), plan to quit in the next 30 days (OR = 0.624, 95% CL = 0.40-0.97), and plan to quit in the next 6 months (OR = 0.63, 95% CL = 0.45-0.89), than individuals with no exposure or exposure from only one source. There were also significant differences in nicotine dependence based on sources of SHS exposure among heavy smokers in the total sample ( $F = 6.28, p = .043$ ); but these differences were non-significant among light or moderate smokers. Home exposure to SHS accounted for 20% of the variance in the final model of nicotine dependence ( $F = 11.98, \text{adjusted } R^2 = 0.675, p < .0001$ ).

**Discussion:** SHS exposure may be an important factor influencing nicotine dependence and smoking cessation behaviors. There is a need for further studies to explore the association between SHS exposure and nicotine dependence among smokers to guide treatment and policy development.