

Smoking Antecedents: Separating Between- and Within-Person Effects of Tobacco Dependence in a Multiwave Ecological Momentary Assessment Investigation of Adolescent Smoking.

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Source

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Abstract

INTRODUCTION:

Ecological momentary assessment (EMA) investigations have shown that the antecedents of smoking vary with individual differences in tobacco dependence. This has been interpreted as indicating that the transition to dependence is characterized by an erosion of external stimulus control over smoking. Rigorously testing this requires collecting multiple waves of EMA data, permitting separation of the influence of between- and within-person tobacco dependence variation in multilevel models.

METHODS:

Adolescents (n = 313, 9th or 10th grade at baseline) participated in up to four waves of week-long EMA assessment over the course of 2 years as part of a larger longitudinal, observational study. At each wave, participants recorded contextual features and subjective states in response to prompted diary assessments and when smoking. They completed a youth-specific form of the Nicotine Dependence Syndrome Scale at each wave.

RESULTS:

In cross-sectional multilevel analyses, smoking was less contingent on alcohol/drug use and was more common at home and in the morning for adolescents at higher levels of dependence. Multiwave analyses demonstrated that these effects were largely attributable to between-person variation in dependence, although parameter estimates for intraindividual dependence \times antecedent effects tended to be in the predicted direction.

DISCUSSION:

Findings provided partial support for the contention that the antecedents of smoking shift as an individual progresses to higher levels of dependence. Distinctive choices concerning smoking settings also

appear to reflect between-person differences in propensity to dependence. More generally, the findings illustrate the value of using multilevel modeling and repeated EMA assessments to investigate the correlates of tobacco dependence at different levels of analysis.

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