Factors Predicting Compliance to Ecological Momentary Assessment Among Adolescent Smokers.

Nicotine Tob Res. 2013 Oct 4. [Epub ahead of print]

Factors Predicting Compliance to Ecological Momentary Assessment Among Adolescent Smokers.

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Abstract

INTRODUCTION:

Ecological momentary assessments (EMAs) are increasingly used in smoking research to understand contextual and individual differences related to smoking and changes in smoking. To date, there has been little detailed research into the predictors of EMA compliance. However, patterns or predictors of compliance may affect key relationships under investigation and introduce sources of bias in results. The purpose of this study was to investigate predictors of compliance to random prompts among a sample of adolescents who had ever smoked.

METHODS:

Data for this study were drawn from a sample of 461 adolescents (9th and 10th graders at baseline) participating in a longitudinal study of smoking escalation. We examined 2 outcomes: subject-level EMA compliance (overall rate of compliance over a week-long EMA wave) and in-the-moment prompt-level compliance to the most proximal random prompt. We investigated several covariates including gender, race, smoking rate, alcohol use, psychological symptomatology, home composition, mood, social context, time in study, inter-prompt interval, and location.

RESULTS:

At the overall subject level, higher mean negative affect, smoking rate, alcohol use, and male gender predicted lower compliance with random EMA prompts. At the prompt level, after controlling for significant subject-level predictors of compliance, increased positive affect, being outside of the home, and longer inter-prompt interval predicted lower momentary compliance.

CONCLUSIONS:

This study identifies several factors associated with overall and momentary EMA compliance among a sample of adolescents participating in a longitudinal study of smoking. We also propose a conceptual framework for investigating the contextual and momentary predictors of compliance within EMA studies.

PMID: 24097816 [PubMed - as supplied by publisher]