

Jackson, K. M., Sher, K. J., & Schulenberg, J. E. (2008). Conjoint developmental trajectories of young adult substance use. *Alcoholism: Clinical and Experimental Research*, 32, 1–15.

Abstract

Background. Despite the prominence of comorbidity among substances and the recent attention focused on trajectory-based approaches to characterizing developmental change, little research in the substance use field has simultaneously considered both course and comorbidity.

Methods. Using nationally representative panel data from the Monitoring the Future Project (MTF; $n = 32,087$; 56% female; 82% Caucasian), we identified developmental courses of heavy drinking, smoking, and marijuana use using 4 waves of data spanning ages 18 to 26 in a multicohort young adult sample. Comorbidity was examined by cross-classifying group membership in substance use trajectories. Finally, the extent to which risk factors (sex, race, alcohol expectancies, delinquency, sensation seeking, depressive affect, religiosity, academic achievement, and parent education) accounted for combinations of comorbidity that occurred at a rate greater than chance was examined.

Results. For each substance, we identified 4 courses of substance use that were largely consistent with those found in the literature (chronic high use, late-onset use, developmentally limited use, and low-use), with a fifth moderate smoking group. Heavy drinking, smoking, and marijuana use were each highly associated, and distinct patterns of comorbidity were evident, with greatest agreement along the diagonal. All risk factors explained comorbidity to some degree, with delinquency, sensation seeking, alcohol expectancies, and religion in particular predicting combinations of comorbidity that were characterized by early onset and chronic high use.

Conclusions. Cross-substance trajectory concordance was high, with parallel changes in substance use over emerging adulthood. This suggests similar developmental timing of use, perhaps due to the experience of developmental transitions that have a common influence on use of different substances. Prediction of combinations of comorbidity characterized by early onset and persistently high use suggests that to some extent, individuals use multiple substances because of a common vulnerability to each, rather than directional relations among substances (e.g., cross-tolerance, cueing).