

Academic performance trajectories in college students: Relationships with alcohol and marijuana use, depression, anxiety, and behavioral dysregulation

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Aim: Drug use during college is suspected to influence academic performance, yet longitudinal data examining this association are scarce. This study examines the relationships between college academic performance, baseline risk factors, and co-occurring marijuana and alcohol use among students participating in the College Life Study.

Methods: At study outset, participants were 1,253 students ages 17 to 19 attending a public university in the mid-Atlantic region of the US. Academic performance, as measured by grade point average (GPA) in the first four semesters of college, was gathered from administrative records. Data on alcohol and other drug use were collected semiannually via personal interviews and online surveys at the same 4 time periods as GPA. Depression, anxiety and behavioral dysregulation were measured at baseline. Gender and high school GPA served as covariates.

Results: A growth mixture model approach revealed three groups with distinct GPA trajectories: 1) consistently superior GPA; 2) consistently inferior GPA; and 3) low-then-failing GPA. Co-occurring marijuana use—but not co-occurring alcohol use—was related to poorer academic performance. Moreover, baseline depression scores and affective and cognitive dysregulation were significant risk factors related to academic performance. In contrast, baseline anxiety was not related to academic performance.

Conclusions: Results highlight the potential importance of co-occurring marijuana use in determining academic failure. Moreover, the fact that baseline depression scores and affective and cognitive dysregulation were found to be significant risk factors related to poorer academic performance suggests that students who are at risk for academic failure can be identified early for intervention. More research is needed to understand the interrelationships between these variables and their impact on longer-term college academic performance.

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