

Title

Is substance abuse in students of tertiary education an indicator of study problems?

Author

Van der Heijde, CM MSc1, Vonk P, MD1, and Meijman, FJ MD, PhD1,2

1 Department of Research, development and prevention, Student Health Services, University of Amsterdam

2 Department of Metamedica / Medical humanities, VU University Medical Centre, Amsterdam The Netherlands

Several studies have found significant relationships between substance use (smoking tobacco, alcohol, drugs) and dependency and academic performance, but others have failed to demonstrate such effects. For instance with regard to alcohol use (e.g. Gill, 2002). More often effects fail to reach significance or disappear when other factors such as place of residence and earlier performance (high school) are included. In one research significant effects remained for smoking and academic performance (De Berard et al, 2004). The question is if using one (or more) substance(s) and substance dependence for users can be used as an indicator of study problems.

Methods

The study was undertaken as part of the project Stoplights: The Student Health Check, a self-regulation instrument for the promotion of student health, including a personalized feedback tool. Student users' substance dependence was registered using the CDS-5 (smoking) and AUDIT (alcohol) and DAST-10 (drugs). To capture study problems we used the average grade, estimated grade for study pace and estimated chance of quitting the study. The relationship of academic performance with substance abuse was tested for with regression analyses (controlled for age, gender, living situation and average high school grades).

Results

The first round of project Stoplights (january-july 2011) yielded 3982 respondents from various study programs and phases. the male –female proportion was 30%-70% and the average age was 22.8 (SD=4.28). Preliminary results especially indicated negative significant differences for smoking students, both for average grade [F(7, 2440)=14.60; p=,000] as well as for estimated grade for study pace [F(7, 2440)=41.33; p=,000]. We did not find a significant relationship of smoking with estimated chance of quitting the study. [F(7, 2440)=3.08; p=.103].

As regards smoking, alcohol use and drugs dependence for the users, we also found significant relationships with academic performance: Regarding smoking, we found a trend for higher smoking dependence with lower average grade [F(5, 688)=11.14; p=.081], and a negative significant effect for estimated grade for study pace [F(5, 688)=5.79; p=.042]. Regarding alcohol we found a trend for higher alcohol dependence with lower average grade [F(7, 2440)=41.33; p=,000], and significant negative effects for estimated grade for study pace [F(7, 2440)=41.33; p=,000], and higher chance of quitting the study [F(7, 2440)=41.33; p=,000]. Regarding drugs we found a trend for higher drug dependence with higher chance of quitting the study [F(5, 451)=1.65; p=,070]

Conclusions

Smoking seems to be the most striking and pregnant indicator of study problems. Furthermore trends and significant effects were found regarding smoking, alcohol and drugs dependence with study problems for users. Regarding these findings, we suggest additional studies into the relationship between substance abuse (and especially smoking) and academic performance, as concerning confounding factors, including patterns of consumption (e.g. Gill, 2002)

References

DeBerard, M. Scott, Spielmans, Glen I., Julka, Deana C., Predictors of Academic Achievement and retention among College Freshmen: A Longitudinal Study. *College Student Journal*, 2004, 38(1).

Gill, J.S. (2002). Reported levels of alcohol consumption and binge drinking within the U.K. undergraduate student population over the last 25 years. *Alcohol and Alcoholism*, 37, 109–120.