Cover Letter

Article Title: Prevalence of Substance Use among Moroccan Adolescents and Association with Academic Achievement

Objective: Drug and alcohol use contribute to significant morbidity and mortality among adolescents worldwide. Despite this, in Morocco, a country of 30 million residents, little research has been done to characterize substance use among its high school students. This study examines rates of drug and alcohol use among those Moroccan adolescents and measures its association with one covariate, academic performance. It provides a foundation for further research regarding the causes and consequences of substance use of Moroccan youth and for the development of interventions to reduce the morbidity associated with that use.

Strengths: This is the first study to survey drug and alcohol use among Moroccan adolescents. It uses an established tool, the European School Project on Alcohol and Other Drugs Survey, that was validated to the local language and culture. Its sample size of 2139 subjects allows for statistically significant findings with regard to academic performance and drug use.

Weaknesses: The survey upon which the study is based was administered at schools during school hours; the data may thus have some response bias as truant students would not have been included. As with all self-reported drug and alcohol use, the survey response reliability is difficult to ensure. In addition, the cross-sectional nature of the study makes it difficult to establish a causal relationship between substance use and academic performance.

Key Findings: A total of 181 girls (16%) and 390 boys (40%) reported ever having used alcohol, hashish, or psychotropic drugs. Use in the last 30 days was associated with lower academic achievement among both genders.

2.1 IRB Statement

Authorization for this study was obtained from the Moroccan Ministry of Education which provides ethical oversight and all students gave verbal consent to participate.

2.2 Informed Consent Statement

All study participants provided informed consent prior to study enrollment.

2.3 Clinical trial registration

2.6 Biostatstics statement

The statistical methods of this study were reviewed by Stacy Salomonsen-Sautel from the University of Colorado Denver.

2.7 Conflict-of-interest statement

The authors declare that there is no conflict of interests regarding the publication of this article.

2.8 Data sharing statement.

Technical appendix, statistical code, and dataset available from the corresponding author at fatima\_elomari@hotmail.com. Consent was not obtained for data sharing, but the presented data are anonymized and risk of identification is low.