Reviewer’s report

Title: Psychoactive Substances Use and Associated Factors among Axum University Students, Axum Town, North Ethiopia

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Reviewer: Lucio G Oliveira

Reviewer’s report:

This study aimed to describe the prevalence of drug use and the associated variables among college students in Ethiopia. The issue is current. If the manuscript is approved, its findings will be of great value to those with closely related research interests. The targeted population is of special interest, since college students seem to be especially vulnerable to the engagement in health risk behaviors. However, the manuscript has some weaknesses that should be addressed by the authors, as follows: I. Major Compulsory Revisions: 1. First of all, the authors are encouraged to carry on the language editing of the entire manuscript, since the text is compromised by grammatical and typographical errors. 2. The authors should be more concise throughout their manuscript. In this regard, a large amount of data was described in the manuscript, leaving the reading a little tiring. Thus, I strongly suggest that the authors should focus their manuscript in some of the reported drugs (khat, alcohol or tobacco use), in order to describe its prevalence of use among the college students and its associated variables. 3. As a large amount of data was described, the discussion became shallow. 4. Also, it is important to note that most of the data are duplicated, i.e., much of the data from tables and figures were re-stated in the text of the manuscript. 5. Some of the journal’s guidelines were not precisely attended by authors. In this regard, I suggest them to especially review the manuscript title, the illustrations (that were embedded in the text) and the reference list that is not according to BMC Public Heath reference style. II. Minor Essential Revisions: My suggestions, section-by-section, are stated as follows: (a) abstract: should be reviewed, especially the results section; (b) Background: 1. The authors have stated that drug use is a rising public health problem worldwide (first and second paragraphs), however, this idea was supported by regional studies. In this regard, I strongly suggest that the authors use reports such as the “World Drug Report”, by the “United Nations Office on Drug and Crime” and the Global Status Report on Alcohol and Health 2011 by the World Health Organization that provides a worldwide frame about the issue. 2. Some details about “khat” use in Ethiopia and Africa are necessary (first paragraph). 3. The terms “drug use” and “drug abuse” seemed to be used with the same meaning in the background. Please, this should be reviewed; (c) Methods: 1. The authors did not mention previous studies to support the procedures adopted for sampling design in their research (second and third paragraph). 2. The sampling stratification is unclear. I did not understand if the sampling stratification was carried out according to field of study, academic year or both of them. 3. The fifth and sixth paragraphs seem
to be misplaced inside the methods section. 4. The authors commented that the
research instrument was planned according to previous studies (seventh
paragraph), but no references were made for those studies. 5. There are no
references about the software used for database building and neither about the
one taken for data analysis. 6. Data analysis needs some clarification (eighth
paragraph). 7. There was no description about the method of variable selection
used during the carrying out of the multivariable logistic model. Was it by
backward stepwise elimination? Or by forward selection? 8. The study was
approved by the University of Gondar but was carried out in the University of
Axum. Is that correct? (ninth paragraph); (d) Results: 1. Among the sampled
college students, what was the rate of participation denial? 2. Most of the data
are duplicated, i.e., much of the data from tables and figures were re-stated in
the manuscript text. Therefore, reading was a little tiring. As mentioned above,
authors are encouraged to be more concise. Illustrations are unnecessary. On
the other hand, the table content should be reviewed for typo errors. 3. In the
description of the multivariable regression model results for khat, alcohol and
tobacco use (paragraphs 13 to 20), the authors decided to investigate only for
the measure of drug use in the last 12 months. However, all results have been
presented according to lifetime and current drug use. Please, is there any reason
that supported that choice? Also, only the variables that reached \( p < 0.05 \) in the
bivariate analysis were included in the logistic regression models. Maybe some
of these excluded variables did not reach statistical significance due to the
confounding effects of significant variables. Did the authors thought about the
possibility of including in the model all variables that reached at least \( p < 0.20 \) in
order to control such confounding effects? 4. Finally, it is important to note that,
at the end of the introduction section, the authors reported that this manuscript
aimed to describe the prevalence of drug use among college students in Axum
University. However, the drug use measures reported in the methods section
refers only to khat chewing, alcohol and tobacco use. Following, in the results
section, the authors used the shisha use and hashish use as explanatory
variables in the multivariate logistic models. These results about shisha use and
hashish use were not explicitly reported in the methods and neither in the results.
It sounded a little bit confusing. Therefore, I suggest that the authors should
briefly refer to the other drug uses - besides khat, alcohol and tobacco use -
among students in the methods and results sections. (e) Discussion: 1. In few
words, the authors compared the prevalence of drug use between college
students and adolescents, as well as between college students from Axum
University and others from other institutions. I believe that maybe the discussion
would be enriched by the comparison of drug use prevalence between the
college students of Axum University and other young adults from the general
population in Ethiopia. 2. The authors should be aware not to emphasize data
that are not consistent with their manuscript aims. For instance, in the paragraph
11, the authors made the following statement: “this indicates adolescent age
group is at higher risk for experimentation of psychoactive substance use and
urgent intervention is needed during this period”. 3. The authors re-stated much
of the findings already described in the results section. Also, authors transcribed
the results of other studies (for instance: OR IC95%) whose outcomes were
consistent with the manuscript. I believe that it is unnecessary. 4. Especially in this section, there were too many grammatical and typographical errors, I suggest the authors should carry on the language editing.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests