Reviewer’s report

Title: Frequency of self-medicated antibiotics, factors leading to their administration and knowledge of their adverse effects among non-medical university students of Karachi: A cross-sectional study

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Reviewer: Dr. Shehnaz Ilyas

Reviewer’s report:

The research article deals with the prevalence of self-medicated antibiotics among non-medical university students of Karachi. In this era of rapid antibiotic resistance, there is a need for such a study from all regions of the developing world. However, the article could benefit from some amendments:

Major Compulsory Revisions:

Though the methodology is well explained, the validity and reliability of the questionnaire has not been commented upon (Lines 134-138). There is no mention of a pilot test performed prior to the administration of the questionnaire.

A more detailed description of the data collection tool will be welcomed with a brief description of the contents, more so as the questionnaire has not been included in the article. What about the operational definition of self-medication and antibiotics in the questionnaire? Were all the students (participants) clear about what constitutes self-medication? Was the questionnaire open ended or closed ended? If both closed and open ended statements were used, specify the sections for each type of statement. Were the antibiotics specified by trade name or generic names?

How was the prevalence of self-medication calculated (lines 141-142)?

Minor essential revisions:

I am not sure the title is appropriate for the article and could be modified to be more short and crisper:

Self-medication with antibiotics among non-medical university students of Karachi: A cross-sectional study ()

The abstract and the article are quite well written.

The Background gives a very elaborate and good justification of investigating research outcomes.

The period prevalence considered is not at all mentioned in the methodology and the reader encounters it first in the results in lines 164 and 165. This too can be mentioned in the data collection tool details. Is there any justification for the period considered for self-medication (6 months)? What about the recall bias?

In Table 1, the n value for self-medicating and non-self-medicating students can be mentioned in the header row. It is being recommended that as none of
the values were significant, the p value column be deleted. There is no need to add the characteristic > 5th year when there are no students. The tables should be self-explanatory and so the total sample (n) can be indicated for both Table 1 and 2.

What is the basis of the conclusion drawn in lines 177-178?

It would be interesting to compare if there were any significant difference between the self-medicating students and those not self-medicating with regard to their knowledge about adverse effects and the actual adverse effects experienced.

It is suggested that line no 159 be modified to confirm males as the majority (59%) rather than the currently worded statement.

Lines 206 -208 can also include a statement regarding absence of significant association between self-medication practice and knowledge about antibiotic resistance.

In discussion, Lines 217 -220, the differences in recall period (if any) between the three studies (research article, ref 4 & 10) can be highlighted.

The lines 248 -256 state certain facts which are omitted from the results (selection of antibiotics; knowledge about antibiotics; proportion of self-medicating students who had knowledge about adverse effects)

The completeness and citation style of the References needs to be looked into e.g.: Ref 5,6,11.

Ref 1, 3 and 12-14 especially are quite old and can be replaced with recent studies.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests