Reviewer's report

Title: Khat use in people living with HIV: a facility-based cross-sectional survey from south west Ethiopia

Version: 3  Date: 15 December 2014

Reviewer: Mahesh Rajasuriya

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NB: A formatted PDF version is sent as an attachment.

Major Compulsory Revisions

1. Lines 108, 109: Khat use is defined as using any amount of kaht during the preceding month in this study. However the data collection tool does not appear to collect this particular information. Questions 305 and 306 are the only questions on khat use, and they cannot reveal if the participant had used khat in preceding month or not. Questions 306 asks the participant to state if they chew khat A. daily, B. 2-3 times per week, C. Once a week or D. Less than weekly. A participant who choses option D may use khat once a month or once a year. Further, whatever the answer the participant choses, there is no certainty that the participant had actually used khat in the preceding month.

2. Lines 117-119: Authors have used a validated Amharic translation of Kessler 6 to measure mental distress. However it is not clear how the Afan Oromo people were assessed for mental distress. It is not clear if the same Amharic translation was used with them or not.

3. Lines 147: Sample size is calculated to be 401, but this was not actually reached in the study. An explanation for this is necessary.

4. Lines 149-151: Patients with severe mental illness and who are too physically unwell have been excluded from the study, according to authors. However it is not clear how this was done, or in other words the particular exclusion criterion is not well described.

5. Significant reference is made under Discussion to the influence of culture/sub-culture on khat use. E.g. cultural restrictions on women in substance use, people who use khat being ashamed to attend a place of worship. However the role of culture/sub-culture is never discussed in this paper.

6. Alcohol and tobacco are well known to be 'teaching drugs' or substances young people first use before using other drugs. In this study, too, it appears to be the case. However no attempt has been made to detect when the participants started using alcohol, tobacco and other drugs, in comparison to khat use. Still this well-known pattern may warrant some mentioning in this paper.

7. Line 244, 245: An assumption has been presented that khat use may give relief from symptoms of HIV. This needs to be carefully scrutinized to see if there is any scientific basis in assuming so.
8. Khat users tend to be erratic in ART adherence. Hence their CD4 counts may further drop. This possibility is not considered in this paper as a reason for the higher prevalence of khat use among participants with CD4 < 200 cells per mm3.

9. Line 249: An assumption has been presented that khat use may cause users to forget to take ART. This needs to be carefully scrutinized to see if there is any scientific basis in assuming so.

Minor Essential Revisions

1. Lines 65, 66 states, based on another paper (reference no. 2): ‘… people use khat for arduous work demands, social cohesion and to cope with unpleasant emotions.’ It would be interesting to note if this original paper (reference no. 2) presents this exact finding or not, or in other words, is there an inadvertent misquoting of the reference no. 2? It is quite possible that what they had found out was: people report that they use khat for above purposes, instead of khat is actually proven scientifically to increase social cohesion or reduce unpleasant emotions.

2. Lines 80, 81: Khat is use is said to be ‘more common among Muslims’, but it is not clear what the comparison is against. Is it more than 80%, the number referred to in the previous sentence?

3. Lines 169-178: The characteristics of the sample are described giving an idea of the sample. However we are not clear if this is a representative sample of population/s who seek treatment at various facilities for people living with HIV (PLHIV) in Ethiopia. It may be beneficial if this sample is compared to other samples that have been studied at other treatment facilities for PLHIV.

4. Line 267: The word ‘also’ has appeared twice unnecessarily.

Discretionary Revisions

1. Lines 71,72: ‘Impairment of mental health’ is stated to lead to ‘decline in mental health’, but in fact, both have similar meanings.

2. Lines 114, 188 and table 1: Differing terms on socio-demographic information (livings situation, living condition, living circumstances) have been used at various places in this paper. They have not been defined. It would be convenient to use one term with a clear description/ definition.

3. The acronym PLHIV has been used in the expanded form in the middle of the article (e.g. line 199). The usual standard is that an acronym would be used consistently in place of the expanded term once defined.

4. Line 208: The sentence that begins with the words ‘The prevalence of khat use…’ may mark the beginning of a new paragraph as the rest is related to a different point compared to the initial part of the paragraph.

5. Line 208: The word ‘study’ has been used several times in this sentence. To make the flow smoother, perhaps this word may be omitted in following use: ‘… less than the study findings from …’

6. Line 212: It appears to sound better if ‘PLHIV less likely to use khat’ is changed to ‘PLHIV being less likely to use khat’.
7. Line 217: It appears to sound better if ‘Khat using’ is changed to ‘Khat use’.
8. Line 222: An ‘a’ is needed after ‘which is consistent with’.
9. Line 228: It appears to sound better if ‘substance use problems’ is changed to ‘other substance use problems’.
10. Line 236: it is better if the sentence is reframed so it is not started with ‘but’.
11. Line 238: Is the word ‘also’ needed, as this study is facility based and not community based?
12. Line 247: The sentence that begins with the words ‘The odds of missing ART…’ may mark the beginning of a new paragraph as the rest is related a different point compared to the initial part of the paragraph.

End of comments.

**Level of interest:** An article of limited interest

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

I am the Chairman of Board of Directors, Alcohol and Drug Information Centre (ADIC), Sri Lanka. It is an organisation involved with drug demand reduction.