Reviewer’s report

Title: Predictors of Adherence to Anti Retro Viral Therapy (ART) among adult people living with HIV and attending their clinical care, Eastern Ethiopia

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Reviewer: Pythia Nieuwkerk

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This paper report on predictors of adherence to antiretroviral therapy among hiv infected persons in Eastern Ethiopia.

Strengths of the study include a large sample size, a high response rate, random sampling of study participants and face-to-face interviews by trained interviewers to assess the study parameters.

The paper has a number of limitations that needs to be addressed.

Major Compulsory revisions

1. Some of the associations between the investigated predictors of adherence seem to be inconsistently- and/or incorrectly reported.

The authors have investigated factors associated with good adherence. Odds ratios higher than 1 therefore represent an increased likelihood of good adherence and odds ratios below 1 a decreased likelihood of good adherence.

The authors state that depressed patients were less likely to have good adherence (lines 50, 176, 218) but according to table 3, persons who were “not depressed” were less likely to have good adherence.

Pill burden is reported to be associated with good adherence (line 49). However, it seems to be that “a lower pill burden” is associated with good adherence (Table 3).

According to the abstract (line 50, 51) a history of opportunistic infections is associated with a higher odds of good adherence, however in the results and in table 3 it is mentioned that it is associated with a lower odds of good adherence (lines 180 and 181).

According to the abstract (lines 51, 52) and table 3, disclosure of hiv status is associated with a decreased likelihood of good adherence, but in the results (182-184) it is reported that disclosure increased the odds of good adherence.

According to Table 3, “never substance use” is associated (although not significant) with a decreased likelihood of good adherence. Is this correct? Or is it associated with an increased likelihood of good adherence.

The categorization of “age in years” and “income” seem not appropriately
chosen: only age 35-44 years is associated with a better adherence than age older than 45 years, but not the other categories. Therefore, this does not seem a meaningful finding but just due to chance.

Also, only the middle category of the income variable gives a higher likelihood of good adherence than the lowest category, but not the highest income category. The meaning of this association is therefore unclear.

2. The study is cross sectional. No causal inferences can therefore be made. To be able to investigate “predictors”, a longitudinal study design is required. I therefore suggest that the authors change all references to “predictors of good adherence” into “factors associated with good adherence”.

3. In the introduction, the authors mention that a rational for a study on adherence in Eastern Ethiopia is that Khat chewing is common (line 76). Did they investigate the association between Khat chewing and adherence? Was Khat chewing one of the categories of the ‘substance use’ variable? Please clarify.

4. The authors mention that in their definition of good adherence they also considered taking ART according to dietary prescriptions (line 43, 112). What dietary prescriptions for which ARVs did they take into account? It seems to me that for none of the ARVs prescribed to these patients dietary prescriptions were applicable. Please clarify.

5. The authors mention they assessed depression using a 20 item scale (line 118). Which instrument did they use?


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

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.