

Review of: "Prevalence and Factors Associated With Non-communicable Diseases Among People Living With HIV at Kalisizo Hospital in Kyotera District, Uganda: A Cross-Sectional Study"

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Potential competing interests: No potential competing interests to declare.

Overall

- Thank you for this great paper highlighting this particular issue, especially in the face of the emerging epidemic of NCDs as the epidemic of infectious diseases persists. This work will go a long way towards providing the evidence needed to rethink our healthcare systems from single-disease/organ to patient-centred healthcare. I would like to applaud the use of measurements, medical records, and self-report to assess the NCD conditions.
- Select one of the following and use it throughout: 'people living with HIV' or 'individuals living with HIV'
- Use CI=34.2% to 45.4% rather than CI=34.2%-45.4% or CI=34.2%,45.4%
- Decide on how many decimal places you will use when reporting percentages. In some instances, I have seen two decimal places, whereas for most of the paper, one decimal is used when reporting percentages. See the last paragraph of the introduction.
- Decide between 'modified Poisson' and 'Modified Poisson' and use it consistently.
- Should the intervention be tailored only to PLHIV who are obese, engage in unhealthy dietary habits, possess tertiary education, and fall into WHO clinical stage 3 or 4 of HIV, or to all persons in the community, as you mention that the risk factors for NCDs are prevalent in the community for both PLHIV and non-PLHIV?
- Did your participants all present with just one NCD each, or were those who presented with 2+? If so, what were the most common combinations?

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Introduction

- Rather than use 'traditional risk factors,' you could consider using 'well-documented risk factors.'
- This sentence could be refined to reflect why the healthcare systems are overwhelmed. Here you offer that it is extensive healthcare needs that are overwhelming the system. Is that all, and what exactly are these needs?: 'further burdens already overwhelmed healthcare systems grappling with extensive healthcare needs'
- In the 4th paragraph, consider introducing the acronym for sub-Saharan Africa (SSA) and then using SSA for all the subsequent occurrences.

- Consider rephrasing this sentence: 'Eastern Africa stands as the second most affected region in Africa concerning the burden of HIV, trailing behind Southern Africa,' to perhaps 'Eastern Africa is the second most affected region in SSA by the burden of HIV, trailing behind Southern Africa.'

Methods

Study design, settings, and population

- In the first paragraph, you use the word 'notably'. Perhaps use another word as using this one implies that it is remarkable that Kyotera district is located 30 kms.....
- In the second paragraph, 87% of what. Do you mean that 87% of the population that is served by the hospital are rural residents?: The hospital predominantly caters to a population of over 87% residing in rural areas, engaged in occupations such as agriculture, trading, and fishing
- Rephrase the first sentence of the 4th paragraph

Inclusion criteria and exclusion criteria

- Please rephrase this paragraph so that it is clearer. For example: The study included PLHIV who were aged 35+ years, were proficient in either Luganda or English, and provided voluntary consent to participate. Conversely, the following were excluded from the study: pregnant women and individuals who had a physical or mental impairment that would impede their ability to provide informed consent to participate in the study.

Sample size and sampling procedure

- The 1st paragraph is one sentence that is long and seems unstructured and fragmented. Further, you mention a prevalence of 20.7 but do not provide a unit of measurement, e.g., %.
- Were there any efforts to stratify by any of the patient characteristics during the sampling, for example, by gender, by age groups, etcetera? Why not?

Data collection

- In the 1st paragraph, please consider 'the predominant language of the region' rather than 'the predominant language in the region'
- Consider combining paragraphs 3 and 4 as they are both short and touch on the same subject, BP
- Similarly, combine paragraphs 5 and 6 as they are both regarding FPG and are short
- Paragraph 8 repeats what is already in paragraph 2 regarding how BMI was calculated. Why was this repeated?
- Paragraphs 16-19 could be combined as they touch on the WHO clinical staging of HIV

Data management and analysis

- Could you talk a little bit more about the modified Poisson regression model, particularly to reflect your awareness of its advantages and disadvantages and its suitability for this study (other than meeting the threshold of 10% prevalence)

Ethical approval and consent to participate

- I was glad to see the handling of patients who were found to have NCDs

Results

Sociodemographic characteristics of respondents

- This section should be moved to the methods section where you discuss the sampling.

Social demographic characteristics

- Consider spelling this as 'socio-demographic' throughout, as the article has 3 different spellings for this phrase.
- Provide justification for separating lower and upper primary into two strata rather than just one.

Risk factors for NCDs among PLHIV at Kalisizo Hospital

- In Table 2, the last 2 rows could be 1 row.

Prevalence of NCDs among PLHIV at Kalisizo Hospital

- In Table 3, the last row is not clearly defined in the text. By the overall presence of NCDs, do you mean having T2DM or HT or DEPRESSION? It would be important to write this out.
- What about combinations of these NCDs? That is, what is the most common combination, and which is the least common, and what are their prevalences?

Factors associated with each condition

Factors associated with T2DM among PLHIV at Kalisizo Hospital

- The results in Table 4 are very interesting as they align with the literature.

Factors associated with HT among PLHIV at Kalisizo Hospital

- Interesting to see here that wealth was not significantly associated with HT, and yet the literature shows that higher income is associated with cardiometabolic conditions in low-income countries.

Factors associated with depression among PLHIV at Kalisizo Hospital

- Very interesting results.

Factors associated with prevalence of selected NCDs among PLHIV at Kalisizo Hospital

- By selected NCDs, do you mean having T2DM or HT or DEPRESSION? It would be important to write this out.
- Do you think that tertiary education is significant because it is more likely that one ends up in an office job with a more sedentary lifestyle and a higher income?

Discussion

- Should interventions focus on all 3 NCDs or especially on depression?
- By selected NCDs, do you mean having T2DM, HT, or DEPRESSION? It would be important to write this out, especially because in paragraph 2 you compare to studies in other countries. Did they use the same 3 selected NCDs in their studies, or other NCDs? The epidemiology of each NCD and the various combinations of NCDs varies.
- Very nice to see how COVID-19 could have impacted society and the healthcare system.
- In the 3rd paragraph, I see that you compare with different settings. However, both London and the USA are high income. Consider adding some stats from middle-income settings as well.
- In the 4th paragraph, mention the author in the sentence 'for instance, [54] included prehypertensive conditions in their definition of HT'. An example, 'for instance, xyz et al [54] included prehypertensive conditions in their definition of HT'

Study Strength

- A notable strength is the use of measurements, medical records, and self-report to assess the NCD conditions.

Study Limitations

- In this sentence 'We therefore recommend analytical study designs to assess causation,' did you mean that you recommend longitudinal study designs? If so, make this explicit by mentioning this or another study design that would enable the study of causation.

Conclusion

- This is great but could be strengthened by providing recommendations where you describe the need for more integrated healthcare procedures for both PLHIV and non-PLHIV, as you mention that the prevalence of risk factors is the same in both, except that PLHIV have the added complication of the sequelae of prolonged ART use.