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.

This is a well-written scientific paper with highly significant discoveries that must be put into practice. However, there are some comments that require clarification to enhance the paper's quality.

Comments

In the introduction section, kindly furnish a rational and scientifically grounded justification for your choice of these **three Non-Communicable Diseases** (NCDs): depression, Type 2 Diabetes Mellitus (T2DM), and HTN.

The selection process of health facilities lacks clarity: whether it's purposive or which sampling technique was employed remains ambiguous. And it would enhance clarity if this information were presented in a figure.

The sample size appears relatively small. Utilizing the single population proportion formula might be more appropriate, considering the 50% prevalence rate, given that the study wasn't conducted among People Living with HIV (PLWHIV). Kish Leslie's formula is typically preferred for *complex survey designs involving stratified sampling*. However, if you suspect that stratified sampling was employed, factoring in the 50% prevalence rate and the design effect could yield a larger sample size.

Wouldn't having the medical staff who've been closely monitoring patients act as data collectors/interviewers introduce biases like social desirability bias? This could be especially relevant when asking about healthy lifestyle and social behavior. Please be explicit about this.

In your data collection section, you mentioned that "irrelevant questions were omitted from the tool, and pertinent questions not included in the tool but relevant to the study were incorporated into the questionnaire." It seems important to specify which questions or, at the very least, the domain or category.

I'm glad to see that you've incorporated the inclusion and exclusion criteria into your latest paper. However, there's still a need for a more explicit description at the outset to address potential confounding factors. For example, do you include all People Living with HIV (PLWHIV), or was there a cutoff point for diagnosis and follow-up time? Additionally, considerations such as other comorbidities/health conditions and treatments they are receiving may be confounding factors. It's important to also consider the completeness of information or variables as exclusion criteria and to

operationally define them. Furthermore, it's worth noting that providing voluntary consent to participate is an ethical consideration, not an inclusion criterion.

It's commendable that you explicitly operationalized the overall prevalence and the prevalence of each NCD in a measurable manner. Typically, when calculating the combined prevalence of these three conditions, it's expected to equal or exceed the sum of the prevalence rates for each disease separately. However, your results in Table 3 appear to contradict this expectation.

How do you ensure that you're not solely reliant on a single-day measurement (BP and BSL), considering it may not suffice for definitive diagnoses in most cases?

What standard do you use for operationalizing smokers and alcohol users in your study? It seems that there's no consideration of the frequency of use. For instance, does your definition mean that an individual is classified as a smoker if they've used a cigarette just once in the past year?

When you operationalize *family history, it encompasses first-degree relatives, comprising biological parents, children, and siblings.* I'm uncertain about the significance of including children in the family history regarding your study context.

The analysis part should clearly explain why you prefer Poisson regression over other types, like logistic regression.

It's commendable that you offer evidence or a citation supporting the statement, *"Biological plausibility, as informed by literature, and an alpha level ≤ 0.1 influenced the inclusion of a variable in the multivariable model."* This is particularly crucial given the existence of various recommended cutoff points.

The study indicates a correlation between higher education and a higher prevalence of certain NCDs in PLHIV, requiring a scientific/logical interpretation of this finding.

In the Ethical Approval section, could you elaborate on how confidentiality and the security of collected data were maintained?

Do you find it appropriate to label the study design as a limitation? It was intentionally chosen to align with the specific research objectives.