Reviewer's report

Title: Prevalence of depression and associated risk factors among persons with type-2 diabetes mellitus without a prior psychiatric history: a cross-sectional study in clinical settings in urban Nepal

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Reviewer: Lesley Jo Weaver

Reviewer's report:

This clinic-based study assesses the prevalence of depression among people with diabetes in Kathmandu, Nepal—a timely and important topic that has received little, if any, coverage in Nepal. The study is well designed, with rigorous methods of psychiatric assessment and inclusion/exclusion criteria that eliminate individuals who might be predisposed toward depression for reasons other than their diabetes. This fact lends credibility to the paper's claim to provide evidence of a directional association leading from diabetes to depression, despite its cross-sectional nature. The results are presented in a straightforward and clear manner, but I found that in some cases, the simple presentation was too simplified. In several places, the authors failed to fully address potential reasons for their findings, and implications. Most of the comments below are intended to encourage a more nuanced analysis of the statistical results in their sociocultural context.

Discretionary Revisions

1. In the introduction, the authors mention the bidirectionality of the relationship between diabetes and depression. Later in the paper (perhaps in the discussion/limitations section), they should address the fact that they only explored one half of the relationship. The manuscript would be further strengthened by briefly mentioning possible future steps for addressing the other half of the relationship.

Minor Essential Revisions

1. Minor grammatical and punctuation errors need to be corrected throughout the manuscript to reflect standard English styles. Also in several places, words are repeated or omitted.

2. In the introduction, the first three paragraphs could be condensed into a shorter and more integrated conversation of diabetes/depression, instead of addressing them in separate paragraphs. For instance, the first and third paragraphs (beginning with “Diabetes is a growing public health concern in Asia” and “The association between depression and diabetes has been reported in South Asia...” respectively) could be combined and edited down somewhat.

3. The introduction needs a stand-alone paragraph that clearly states the
objectives and justification of the study. The last two sentences of the introduction address objectives in a clear manner, but this section should also refer back to the literature reviewed in previous paragraphs to provide clear justification of the study.

4. The word “syndemic” at the top of page 16 is not used correctly. See Singer's 2009 book.

Major Compulsory Revisions

1. In the Settings section, the authors observe that community based studies of depression in Nepal have reported prevalences ranging from 28-41%. If this is accurate, the prevalence of 40% reported in this study might not be significantly higher than a general population-based level. Ideally, the authors would assess depression in a non-diabetic control group. If this is not possible, the similarity between prevalences in community-based studies and in this study needs to be addressed directly in the first paragraph of the Discussion section, where the authors compare their observed prevalence to prevalences in previous studies.

2. The manuscript needs to more specifically address why high income might be associated with depression in Nepal but not in other South Asian countries, such as India. If income serves as a proxy for increased health-harming behaviors in Nepal, as the authors suggest, one would expect to see similar trends in India, where the growing middle and upper classes experience increasing sedentization, rich diets, and also currently experience the highest rates of chronic diseases like diabetes.

3. It is noteworthy that behavioral and socially mediated predictor variables, such as socioeconomic status, erectile dysfunction, living in a nuclear family, injecting insulin, and monthly income, were among the strongest predictors of depression, as opposed to biological measures of health such as HbA1c and hypertension (here, WHR is an obvious exception, although WHR does have important social valences as well). This trend deserves some mention in the discussion and would enrich the stated conclusion that “Depression is associated with indicators of more severe diabetic disease status.” These indicators convey more complex information than simply diabetes status. Why, in this cultural context, might social/behavioral predictors be more strongly associated with mental health than biomarkers? What are the implications for diabetes/depression management?

4. There is currently no discussion of the study's limitations. This should be addressed, even if briefly, in the Discussion section.

Level of interest: An article of importance in its field

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 declare that I have no competing interests.