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: Emily Mendenhall

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This well-written paper with a good study design makes a significant contribution to the growing body of research on depression and diabetes in Nepal as well as South Asia. It also provides important insight into the research around the co-morbidity in low and middle income countries more generally. It is a timely paper and will be well-received in Nepal and South Asia more broadly by the growing number of researchers attending to issues of diabetes and its co-morbidity with depression. This paper should be published with a few modifications.

Major Compulsory Revisions

1. The study design excludes people who have had diabetes for less than three months. While this is a useful cut-off, particularly with regard to measuring A1c, it poses some unique challenges for this study. People with diabetes are most likely to present with depression during the first one to two years living with the disease, as they acclimate to the knowledge that they have the chronic illness and learn how to manage it appropriately through changes in lifestyle as well as medication adherence. Then, depressive symptoms generally decrease. It may be useful to redo these analyses with people who have had diabetes with no less than one year or two years. This should be considered in all analyses.

2. Qualitative researchers have found that some distress linked with chronic illness results from fear around what the disease means for his/her life. Therefore, could it be that less depression among people with a family history of diabetes could result from more familiarity with the disease, or having a “diabetes prototype” wherein they understand that diabetes can be managed? (Referring to this sentence on page 14): “In this study family history of diabetes was associated with less depression suggesting that the current cases may be more lifestyle related and associated with other risk factors for depression.” While this comment attends to the issue of lifestyle, it also suggests that it is not only eating and activity patterns that affect depression; social support plays a major role.

3. On page 15 the authors mention the Weaver and Hadley (2011) paper in a way that indicates that it compares men and women; this paper looks exclusively at social roles among women. Modify this sentence to transition clearly into the final sentence/point in the paragraph around gender-role performance. An example from the Weaver-Hadley study would also be useful to juxtapose their
findings to men’s erectile dysfunction (which is both biological and social).

4. Add a topic sentence to the paragraph that begins with “Age” on page 15.

5. There are some issues with the paragraph (pp. 15-16) around income. Please refer to Leone et al.’s Globalization and Health 2012 paper entitled, “Diabetes and depression comorbidity and socioeconomic status in low and middle income countries (LMICs): a mapping of the evidence.” Those who are poor are less likely to know they have diabetes and/or seek medical care. With increasing rates of NCDs among the middle class and working poor in LMICs, and South Asia specifically (co-occurring with increased economic growth and affluence), the conclusion that the wealthy continue to have more problems around diabetes and other NCDs seems a bit overstated.

6. A related issue is to the introduction’s statement: “In contrast to high-income countries, in South Asia, obesity, metabolic syndrome, and diabetes is a disease of wealthier members of the population [2].” It might be useful to indicate that in other South Asian countries a socioeconomic reversal of diabetes has been observed as the most affluent are becoming healthier and middle and lower classes are presenting high rates of NCDs (see Popkin et al 2012, Reddy et al 2007). What’s interesting about this point is that excluding those who have already had depression treatment may have played a role in why the affluent are more depressed in this sample. This is important because mental health and depression are strongly correlated and may play a role in why other studies have found lower income people with diabetes present with more depression. This is a topic worth considering for this paper.

7. Social problems, such as gender inequality, may be discussed as causes for women’s higher rates of depression when compared to men. However, these findings are not varied from the general population, so, as other studies have indicated, they may reflect the greater population trends for depression (underscoring the impact of social problems on depression among people with diabetes as opposed to only disease-related problems).

Minor Revisions

1. The authors use the term “diabetics” throughout; there is some hesitation to use this term across the diabetes literature. “People with diabetes” is preferred.

2. Several typos (missing or misplaced words, commas out of place, extra spaces) should be corrected. These are minor and can be corrected with a close read of the final manuscript once other revisions are complete.

a. An example of where edits should be made are to this sentence (p. 15): “This contrasts with community studies of depression that show a consistently show greater prevalence among Nepali women compared to men.”

b. And this one (p. 16): “Integration of mental health services in primary care will be important combat prevent development of depression among diabetes patients.”

**Level of interest:** An article of importance in its field
Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

Dr. Brandon Kohrt is a colleague with whom I work with on anthropological projects unrelated to the current paper.