Reviewer’s report

Title: The Association of Depression and Anxiety with Glycemic Control among Mexican Americans with Diabetes Living Near the U.S.-Mexico Border

Version: 3 Date: 23 January 2014

Reviewer: Francesco Rotella

Reviewer’s report:

The authors carefully revised the manuscript answering to all the points raised.

With respect to the major compulsory revisions required:
- The reliability of the method used for determination of A1c (GLYCO-Tek) has been addressed.
- The linearity of the model has been clearly stated by the authors (even though no data been reported).
- In the results section R2, Adjusted R2 and significance levels of each model have been added in the text.
- In Table 3 and 4 Standard Errors have been added.
- Analyses used to evaluate interactions have been clarified.

With respect to the minor essential revisions:
- The assessment of physical activity has been described more in detail and adequately discussed.
- In Table 2, numbers of different groups have been added in each column.
- The data regarding the negative association between depression and physical activity has been corrected.
- The 2nd par of Discussion section has been revised.

Major compulsory revisions still required:

In their response, author state that:

“We agree with the reviewer that p = .10 is probably not normally worth noting. However, in this case the p-values were actually less than .10, with p = .08 for the relationship between depression and HbA1c, and p = .07 for the relationship between anxiety and fasting glucose (see pgs. 9-10). We wanted to show a consistent pattern of relationships between depression and anxiety with measures of glycemic control, so we thought it was important that readers know the relationships approached significance. In addition, the fit for the entire model (with covariates) in each of these cases was also significant (information about model fit has been added to pgs. 9-10 at the reviewers request – see comment #3).”

The relevant fact is that the significance level is >.05. In other words, the relationships described are not statistically significant, even if they are included in
significant models. Given the high number of analyses performed, even a $p < .05$, but $>.01$, could be expression of relationship due to chance. I feel to stress once more this point, because authors perform “moderation analyses” on the basis of not significant data. This is methodologically not correct and even misleading. This is a negative data and should be reported as such. Depression is not related to HbA1c and anxiety is not related to fasting glucose.

Minor Essential Revisions still required:

Some recent studies have been added in the Background section (2nd par). However, at least two recent and well-performed meta-analyses reporting higher risks of depression in patients with diabetes are still not cited (Nouwen A, Winkley K, Twisk J, Lloyd CE, Peyrot M, Ismail K, et al. European Depression in Diabetes (EDID) Research Consortium: type 2 diabetes mellitus as a risk factor for the onset of depression: a systematic review and metaanalysis. Diabetologia 2010;53(12):2480–6; Rotella F, Mannucci E. Diabetes mellitus as a risk factor for depression. A meta-analysis of longitudinal studies. Diabetes Res Clin Pract. 2013 Feb;99(2):98-104). Furthermore, authors have not highlighted in the text the fact that if diabetes increases risk for depression, this may have a significant influence on the rates of depression found in diabetic patients in cross-sectional studies.

**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