Reviewer’s report

Title: Association of Acculturation and Country of Origin with Self-Reported Hypertension and Diabetes in a Heterogeneous Hispanic Population

Version: 2 Date: 13 July 2012

Reviewer: Evangelia Dounousi

Reviewer’s report:

The aim of the study was to examine the hypothesis that diabetes and hypertension prevalence among U.S. Hispanics vary by country of origin and by the degree of acculturation in a large sample of population such as the Californian Hispanics, by using the CHSI. Previous studies have reported significant higher rates of cardiovascular risk factors among Hispanics in comparison with non-Hispanics whites, but in the existing literature it seems that there is a shortfall regarding the assessment of these factors in different Hispanic subgroups and the possible effect of acculturation across them.

Comments:

A. Major Compulsory Revisions:

1. In results, the reader receives a lot of information due to many subgroups and many assessed parameters, and at some points it becomes difficult to follow. So, I think that for the facilitation of the reader it would be better the authors to distinguish in a new paragraph the results from the comparisons between US-born and Foreign-born Hispanics.

2. In “discussion”, page 10, line 7, the authors report that self-reported English ability was an important predictor of hypertension and diabetes reported rate, while the results showed that “Limited English ability was not associated with reporting different rates of hypertension compared to English speakers” in Foreign-born Hispanics. Please correct.

3. According to the results, Mexicans both US-born and Foreign-born reported at lower rates hypertension and at higher rates diabetes even after adjustment. Is there a possible explanation for that, as according to the existing literature there are high incidences of all cardiovascular risk factors (hypertension, diabetes, obesity and metabolic syndrome) among Hispanics in comparison with NHW (Roger VL et al. Circulation 2012; 215: e2-20).

4. In “discussion” the authors suggest that the “Hispanic paradox” holds primarily for Mexicans Foreign-born based on their finding according to which this subgroup reports hypertension at lower rates. In my opinion, this is an overstatement as data are cross-sectional, diabetes and obesity are reported in higher rates and there are no data regarding mortality of this population. I think that it would be better to either omit or rephrase this suggestion.

5. In “discussion”, regarding the US-born other Hispanics, the authors report that
they had higher odds of reporting hypertension, which does not apply after the adjustment (Table 3). Moreover, the explanation given for the higher rates in reporting diabetes for the same subgroup is the higher socioeconomic status, which socioeconomic status does not seem to be higher comparing with the “other” Hispanics, at least from the data in table 1. Please define better.

6. Please add the footnote of table 1 to table 2 as well, unless it does not apply.

7. Regarding statistical analyses, it would be better all significant “p values” to be added, especially for “p values” with marginal CI 95% (table 3).

8. Regarding statistical analyses, please refer if “p values” were adjusted for multiple comparisons between subgroups. If not, it would be better to do so.

B. Minor Essential Revisions:

1. In “results”, page 7, 2nd sentence it will better first to refer the number of the US-born Hispanics (Table 1) and then the number of the foreign-born by adding (Table 2).

2. In “results”, page 8, last line, please change the number of the table in the parenthesis. The correct table is (Table 3), instead of (Table 4).

3. In “results”, page 9, last line, please change the number of the table in the parenthesis with the correct table: (Table 4), instead of (Table 5) which does not exist in the submitted manuscript.

4. In ‘discussion”, page 11, please correct the term: “coronary artery calcium”.

5. In “strengths and limitations”, page 14, 2nd paragraph, 3rd line, there is a misspelling. Please correct the word “insured” with “uninsured”.

C. Discretionary Revisions

1. The authors have used 4 variables as measures of acculturation. One of them was the “Self-reported English language ability”, which classification into 4 and then 2 categories includes an element of subjectivity and I think that it would be better to mention in the limitations of the study.

2. Consider omitting data derived from NHB from the tables, as they are not being used in the analyses.

In summary and in my opinion, the present study successfully reintroduces the effect of acculturation on chronic diseases and marks out the importance of heterogeneity among Hispanic population regarding common health issues. On the other hand, their results show a complex relationship between acculturation and self reported rates of diabetes and hypertension, as the authors correctly commented, which complexity raises new issues regarding the optimal method of assessing this problem in order to provide new prospective into planning public health interventions.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable
**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**
I declare that I have no competing interests