Reviewer’s report

Title: Association between Migration and Cognitive Status among Middle-Aged and Older Adults: A systematic review

Version: 1 Date: 21 Apr 2017

Reviewer: Edmond Teng

Reviewer's report:

In the revised version of this manuscript, the authors have largely addressed many of my prior concerns. There are a few minor issues detailed below that might be further ironed out?

1. In the Introduction (pp. 3-4), the authors lay out potential rationales for why migration might be either beneficial or detrimental for cognitive function in aging, but they do not lay out a hypothesis for what they expected to find with their analysis. Their data suggest that migration either has no effect or a negative effect. Was this the outcome they expected?

2. At the end of the Introduction (p. 4), the authors indicate that their results may have "implications for clinical practices as well as health policies." These potential implications should probably be mentioned in the Discussion.

3. In the Results (p. 9), the authors indicate that returning migrants from the US performed better than local residents in Mexico, but in the Discussion (p. 13) imply that returning migrants did not have better cognitive function. Table 1 suggests that the former is the actual result, but perhaps the authors could clarify?

4. In the Results (p. 10), the authors might clarify that it is immigration to the US from the Dominican Republic and Puerto Rico that they are referring to.

5. Further down in the Results (p. 10), the authors indicate that longitudinal studies indicated a migration effect on cognitive decline, but do not state what that effect was? The Graves et al., 1999 study appears to suggest that immigration was protective for longitudinal cognitive decline. The Zahodne et al. 2014 study that is cited in this section only included immigrants (so no non-immigrant comparison group), but compared monolinguals and bilinguals. The Haan et al., 2011 and Wilson et al., 2005 studies suggest that immigrants did worse than subsequent generations at baseline. This section should be clarified, and given that it focuses on longitudinal studies, perhaps only longitudinal differences (i.e. not cross-sectional baseline) should be mentioned?

6. In the Discussion (p. 15), the authors detail differences in study quality across reports. Were there any differences in outcomes between higher and lower quality studies?
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

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Not relevant to this manuscript

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