Reviewer's report

Title: Adverse birth outcomes among native-born, China-born, and Southeast Asia-born mothers in Taiwan: A population-based birth cohort study

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Reviewer: Nathalie Auger

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Review of « Adverse birth outcomes among native-born, China-born and Southeast Asia-born mothers in Taiwan : A population-based cohort study ».

Major revisions:

1. I received the revised version of the manuscript, and continue to have some concerns regarding the scientific content, including several interpretations related to the “epidemiologic paradox” that are put forth. What the authors need to be clearer about is that they are evaluating the relationship between a variable measuring immigrant status and a birth outcome. There is an extensive literature on the healthy immigrant effect that the authors need to be aware of, including several major reviews on this issue. See for example,


The epidemiologic paradox, however, is a separate issue. The authors in fact found no evidence of an epidemiologic paradox in Taiwan. Had an epidemiologic paradox been present, they would have observed, for instance, that odds of preterm birth were lower for China-born but not SE Asia-born cases (relative to native-born), despite the lower socioeconomic status of both groups. This is clearly not the case – all the foreign-born groups in Table 4 were less likely to have adverse birth outcomes relative to the native-born population (which is merely an indication of the healthy immigrant effect). The discussion as it currently stands is not supported by the results.

2. There is lack of congruence between the revised study objective and the statistical analyses. The objective states that the study sought to “examine the contributions of socioeconomic factors to disparities in low birth weight and preterm birth across China-born, SE Asia-born and Taiwan-born mothers. However, the associations between socioeconomic status and these outcomes are not reported for any of the three groups (or for the sample overall). The results only demonstrate that the healthy immigrant effect was not confounded by socioeconomic status (since the association with foreign-born status remained protective against adverse birth outcomes even when adjusting for
socioeconomic status). I sense that the confusion in the study objective relates to the need to better grasp the wider literature in terms of the distinction between the epidemiologic paradox and the healthy immigrant effect. As it stands, the study objective should be “To determine the relationship between nativity and adverse birth outcomes accounting for maternal characteristics including socioeconomic status.” This applies to the abstract as well (objective and last line of methods are unclear, page 2). The remainder of the text should also reflect this issue.

Other essential revisions:

3. I found that several of the comments by reviewer # 1 were constructive. Although the authors responded to the comments in a response, they did not address the issues in the manuscript. In particular, the authors should carefully address generalizability in the text.

4. Source of gestational age – the authors responded to my question, but should provide the information in the manuscript, and address the limitation of using dating based on last menstrual period in the limitations section.

5. Background, page 4, last line. Sentence not clear.

6. Methods, page 5 - Delete the sentence “Parental education was also categorized... “. Not clear why it is needed here. Methods, page 8 – the two newly added sentences are unclear, as no results showing ORs for nativity in different income strata are provided, nor are ORs for socioeconomic status in different nativity strata shown. What the authors currently provide are results for the following analysis: “Multiple logistic regression was used to examine the association between nativity and lbw and ptb in unadjusted models, and models adjusted for (list the covariates here).”

7. Discussion, first paragraph, page 12 – delete point (1) which is redundant (the same information is stated in point (2)).

8. The authors often use the term “reached a significant level”. There is a distinction between something being “statistically significant” as opposed to being “significant”. The authors appear to be referring to statistical significance, and should say so in the text.

Level of interest: An article whose findings are important to those with closely related research interests

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'