Reviewer’s report

Title: The risk of childhood autism among second-generation migrants in Finland: a case-control study

Version: 1 Date: 16 August 2013

Reviewer: Julian Gardiner

Reviewer’s report:

This is a scientifically sound and well-written paper which applies a suitable statistical model to a large data set in order to address a valuable research question.

Discretionary Revisions

1. I believe that the method used to select potential confounders to be controlled for is not ideal. It is possible for the results to be affected by confounding even in cases in which there fails to be a significant relationship between the potential confounder and both the exposure and the outcome. I believe that the final results found would be much stronger if all the potential confounders were controlled for in the final model.

2. The fact that socio-economic status has not been controlled for is of concern. The authors cite the unreliability of the data on SES for immigrants as the reason for this omission; however it would probably be better to control for this factor -- even using imperfect data -- than to omit this important potential confounder altogether. Where SES cannot be assigned reliably, it might be worth considering using multiple imputation.

If the above suggestions for controlling for SES are not feasible, the case against confounding by SES could be strengthened if it could be shown that autism risk in not related to SES among the controls (for whom usable SES data is presumably available).

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 have no competing interests.