To the editor:

Thank you for asking me to review this manuscript. I think this study makes an important contribution to the literature on gender inequality and the status of women. Abortion of female foetuses is an important public health issue that is under evaluated in Western countries. Research on this phenomenon is not only necessarily to prevent the problem, but also to highlight gender inequality as a determinant of health overall.

The authors investigated secondary sex ratios for Norwegian births among mothers originating from India and Pakistan. They report low female:male sex ratios among Indian mothers for births during the late 1980s and early 1990s compared with other periods. The manuscript would benefit from revision by an Anglophone proof-reader. In addition, I think the manuscript would significantly benefit from the following major compulsory revisions (my main comments on the study pertain to the study methodology and presentation of the results, which were somewhat unclear to me). Specific comments are below:

Abstract/Background

In general, I have no major comments. Can the authors clarify the terms “maternal dominance” (line 60) and “exceeding” (line 63) that are not clear to me.

Methods

1. The authors report sample sizes in lines 99-100, but these are significantly lower than those listed on line 81. Please clarify.
2. line 106 “anonymous” is unclear, perhaps “denominalized” might be a better term.
3. line 107. The authors should have a section describing the variables that were used. Without this section, it is impossible for the reader to know what was analysed (this also makes it relatively difficult to review the remainder of the methods)
4. line 144-5, please provide reference
5. line 116, please be more specific by what is meant with “total number of births”
6. line 118 – please clarify
7. lines 119-122. The description of the regression procedure is not clear to me,
including what exactly was analysed. What was the referent group for the exposure variable? It’s not clear how birth order is analysed. Specify the outcome that was analysed.

8. line 122. The authors mention “means”. Aren’t they evaluating proportions? Please clarify.

9. There is no reference or “control” category in which sex ratios would not be expected to be influenced by selective abortions. Such a category would be helpful, especially to help determine the extent to which normal variation in the sex ratio might be at play in this dataset.

Results
1. The results are mainly descriptive. Where are the regression results? There is a sentence (lines 153-5) that seems to be describing these results, but it is very general.
2. Line 152-153 should be moved to the methods section.
3. Figure 1 – why are the sex ratios for years prior to 1970 not shown? Please clarify what is meant by “last child” – is it fourth order births or a mix of several orders? I found this part confusing.
4. Figure - I think the steadily increasing sex ratios in the Indian first child group is an important finding, and the authors should bring this point out more in the results.
5. Table 1 – From the figure, it appeared that the sex ratios were calculated yearly. In the table, they seem to be calculated according to period. What would help would be a clearer description in the methods of what the investigators did during the analyses.
6. Table - Specify the exact span. Ie, does the span go from 1970-1986? If so, what happened to the earlier births?
7. I feel there is a need to show a more complete picture of the results, perhaps by adding or expanding the current set of tables/figures
8. In general, interpretations of the results should be kept for the discussion.

Discussion
1. The authors should add a limitations section (this is missing in the current version of the discussion.)

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

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