Reviewer's report

Title: Using latent class analysis to develop a model of the relationship between socioeconomic position and ethnicity: cross-sectional analyses from a multi-ethnic birth cohort study

Version: 1

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Reviewer: Laura Marlow

Reviewer's report:

This paper was interesting and well written throughout. The authors make a good case for what their analyses can add to our understanding of measuring SEP. The question is well defined and uses a large diverse sample of women, with multiple measures of SEP. The methods are well described and easy to follow. However, there is no discussion of the assumptions for LCA.

Minor essential revisions
- I am a little confused by the description of the ethnicity question used, in particular the categories Indian Caribbean and African Indian. Perhaps this is a typo or maybe the authors added these sub-categories, but they are not in the original 2001 census question. Please clarify.
- I was interested to see that housing status was not included in table 6 (the LCA within Pakistani women) could the authors comment on this.
- The variation in the profile depending on which ethnic group the analysis was being run with suggests the initial categories (shown in table 3) may not be applicable to any one ethnic group. The authors should offer some interpretation of this finding and the implications it has for researchers considering the use of this method in the future.

Discretionary revisions:
- Perhaps more information in table 2. I would have liked to have seen some more socio-demographic characteristics of the sample and this could also be useful for highlighting the amounts of missing data for each question.
- The material deprivation measure is subjective and it could be that ethnic minority women are more satisfied with what they have, but there could also be some bias in reporting here. Some ethnic groups may be less comfortable reporting being unhappy with what they have. I might also question the cross-cultural appropriateness of the eleven items from the Households Below Average Income Survey [19]. These are points the authors may like to acknowledge in the discussion.

Level of interest: An article of importance in its field

Quality of written English: Acceptable
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