Reviewer's report

Title: Overweight and obesity in expectant parents: socio-demographic patterns and within-couple associations. A population-based, cross-sectional study.

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Reviewer: katie A meyer

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Title: Overweight and obesity in expectant parents: socio-demographic patterns and within-couple associations: A population-based, cross-sectional study.

Summary
This paper quantifies BMI (from self-reported weight and height) among pregnant women and expectant fathers. The research questions are clearly stated at the end of the Introduction. The statistical methods do not account for the clustered nature of the data. Limitations of the study design, including low response rate and self-reported weight and height, are noted by the authors, but perhaps down-played in their discussion. Data were collected via surveys. Greater clarify is needed in describing how the sample was recruited (prior to enrollment in antenatal care), and how the male/female sample sizes correspond to parents and couples. I believe the paper would benefit significantly with additional analyses (see #5 under Major Revisions). As written, the paper will be of most interest to workers with a specific interest in data from Swedish samples.

Major revisions
1. Please tell us how pregnant women were identified prior to enrollment in ANC.
2. Please include sample size information in the methods. Specifically, explain how you obtained more mothers and fathers than couples. Did you consider restricting the analysis sample to instances where you have complete couple data?
3. Your response rate is quite low. Do you have data on non-respondents that could inform about potential differential selection, such as comparing your sample to the county as a whole on demographics (e.g., age, SES, region)?
4. In addition to a general underestimation of BMI from self-reported weight and height, studies have documented differential bias in BMI including by SES, race, gender, and weight (in US samples). You reference a Norwegian study and the lack of differential bias (prevalence altered, but not exposure-outcome associations). Please specify what outcome they were studying and comment on why you think their findings apply to your study.
5. The statistical analysis should account for within-couple clustering.
6. Currently, the analysis focuses on: 1) the prevalence of overweight and
obesity among men and women in the study, 2) that weight is correlated within couples, and 3) that weight is associated with SES. There is not as much new in these findings as there could be, given your data. It would be particularly interesting to show us how SES corresponds to those associations. You reference mating studies, which have shown that SES may influence the co-occurrence of overweight/obesity within couples in potentially important ways. For example, higher-SES, higher-BMI men may marry lower BMI women as compared to lower-SES higher-BMI men. Such a pattern could concentrate overweight/obesity in lower-SES populations if the risk to the child is greater from two (as compared to one) overweight parent.

7. Stratification by parity and years of cohabitation may yield important results.

8. You refer to 'interaction analysis' in your Methods section, but it is not clear what those analyses included. Please provide more specific information, and explain why you dichotomized variables for your interaction analysis.

9. Given the high prevalence of overweight/obesity, it would be more useful to see prevalence estimates (and ratios). Odds ratios do not provide a good estimate of prevalence ratios with these outcomes.

Discretionary revisions
1. I suggest one decimal point for BMI.
2. I would suggest writing '<0.001' rather than .000 for p-values.

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What next? Reject due to inappropriate statistical methods and lack of new findings.

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**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.