Reviewer's report

Title: Long working hours and pregnancy complications: women physicians survey in Japan

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Reviewer: Shona Kelly

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BMC Preg Childbirth - Physician working hours

This is a very interesting piece of research on an important topic for all working women during their child-bearing years. The paper is well written and easy to read but a few things need clarification.

Major Compulsory Revisions

Background
line 55. The EU has also implemented work regulations which should be referenced as well
line 59. The studies that have investigated working hours and pregnancy complications should be cited.
lines 66-68 are redundant
The last sentence (lines 74-78) belongs in the discussion
There are no aims and objectives listed

Methods
line 90 - were the alumni male and female? If both genders were sent invitation then your response rate is not as poor as it seems.
line 91 - remove the word 'finally'. We all know how many reminders it takes # but we usually don't state this in the published paper.
line 107 - was this current household income or the household income at the time of pregnancy. If the latter it may bear no relation to current socioeconomic position.
lines 112-113 - You list 6 outcomes but appear only to have analysed 2. Please clarify this. I presume small numbers of some outcomes played a role?
line 121 - was the distribution of working hours normally distributed? I would like to see a graph of the working hours.
line 125 - you haven't clarified why these adjustment variables were selected.
line 142 - there seems to be some confusion about the terminology for classifying medical specialty. Please make sure it is the same in the text and all the tables.

Results
line 148 - I would like to see a dose-response relationship across categories of working hours. Can you please create another category for <40 hours if the numbers permit?

line 153 - it is possible that the relationship between working hours and complications is not linear. I suspect the risk increases, possibly, exponentially with increasing hours worked. If you have the numbers and some statistical support can you check for this please.

Also, there may be an interaction between age and working hours. Did you check out any interactions.

Discussion
There is significant risk of recall bias in this cohort - this needs to be discussed and refuted (your prevalence rates are similar to what would be expected).

line 169 - If the Pompeii work didn't control for socioeconomic status their findings may actually be about people in work having a better standard of living. Sorry, I don't have access to this paper to confirm that the research controlled for socioeconomic status.

line 182 - change 'consistently' to 'statistically'

line 192 - or the study sample might just be financially well off.

Other
line 259 - by 'sequential' do you mean repeated mail-outs of the questionnaire?

Table 1
- change 'age' to age at survey'
- match the specialty categories to the other tables and the text.
- state if household income is current income or at time of pregnancy
- please provide maternal age in categories

Table 2 - it would have been more useful to see the prevalence in each of the working hours category for each outcome.

Table 3
- again, match the specialty categories
- exclude the N(%) or mean (SD) column
- add in the intercept for the full (adjusted) model
- add in the 95% confidence intervals for the crude analyses

Since the jargon can be confused it is worth including a footer that states that the 'crude' analyses are univariate analyses while the 'adjusted' analyses include all variables in the same model.

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 declare that I have no competing interests