Reviewer’s report

Title: Factors Associated with Occupation Changes after Pregnancy/Delivery: Result from Japan Environment & Children's Pilot Study

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Reviewer: Janice F. Bell

Reviewer's report:

This is an interesting paper; however, there are several issues that could be addressed to strengthen its contribution to the women's health literature.

1. The Background would be strengthened by including a rationale for the importance of this research to women's physical, social or psychological health. Other than mentioning the timing of women's participation in the labor force with respect to marriage, pregnancy and delivery there are not details about why this question is a women's health issue. As written, the introduction is presented from a demographic perspective without any supporting evidence for the women's health implications.

2. More details are needed to describe the study population from which the participants were drawn. Who participates in the JECS? (It is implied that all respondents are women and they "continued to work after pregnancy".) Are JECS respondents recruited pre-conception, while pregnant or after birth? Did this study use data collected in the JECS or did the researchers send a separate survey to a subset of JECS participants? If so, how were these subjects identified? If I understood the methods correctly, the researchers sent a survey to a subset of JECS respondents at six time points. Why were only two time points used for this work? What was the response rate to this survey?

3. Including the rationale for the covariates selected would be useful. On the other hand, many important potential confounding variables were not addressed in the analysis (see comment below).

4. Definitions for "Regular" and "non-regular" employees are required. In addition, this distinction--which appears as the primary conclusion of the study--is not addressed in the background, making it difficult to follow the study through from its purpose to its conclusion.

5. There are several important limitations to this study that are not mentioned or discussed:

a) The background supports examination of "participation" in the labor force in terms of working/not working. Yet the outcome was examined as binary changed/unchanged with the
group "changing" occupation including those who resigned altogether. This limits the papers' contribution as it is unknown whether a change of occupation was to a more or less demanding job (e.g., what does a change from clerical work to sales work actually mean? Is it the same as a change from sales work to clerical work?) -- moreover this "change" as measured includes not participating in the workforce at all.

b) Many potential confounding variables are not measured or considered--including socioeconomic status (household income, education, wealth).

c) There is no discussion of selection bias in terms of survey participation and the possible implications for the study findings and generalization. This is difficult to judge given the sparse information about the original cohort.

d) There is no discussion of social desirability bias in terms of its effects on responses to the survey questions.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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