Reviewer's report

Title: Prevalence and predictors of antenatal depression among Chinese women in their third trimester: a cross-sectional survey

Version: 2

Date: 21 January 2015

Reviewer: John Eastwood

Reviewer's report:

Thank you for asking me to review this important manuscript. Antenatal depressive illness is an important clinical and public health issue that impacts significantly on the health development and well-being of infant’s children and both their parents.

I have however two major analytical concerns that must be corrected.

- Major Compulsory Revisions

1. It is may not be correct to report that 28.5% of the women in the study had [clinical] depression. The SDS is a screening instrument and not diagnostic of clinical depression is reporting depressive symptoms. The study uses and ordinal stratification of the SDS results as mild, moderate and severe. As in the Edinburgh Depression Scale literature the severe cases might be indicative of clinical depression but it is unlikely that all the mild and moderate cases are all clinically depressed. It would be more appropriate to report all three groups as depressive symptoms. For readers not familiar with the SDS it is important to cite the validation studies that have demonstrated the “cut-off” values in different population groups.

   The Outcome variable is a continuous variable that is almost certainly highly skewed. In your description of the SDS variable on page 7 you should describe the distribution of the variable in terms of kurtosis, skew, mean and median. Is there a reason the cut-offs were made. Presumably based on the work of Zung.

   Having described the outcome variable as a skewed continuous variable which does not have a linear distribution then it will be evident that a Linear Regression cannot be used for the regression analysis. There are two options: 1) ordinal logistic regression (mild, moderate, severe), or 2) binary logistic regression (all greater than 50).

2. Given that you are studying the risk factors for having depression or not having depression then the outcome must be either binary or ordinal if you use mild moderate and severe as your outcome variables.

   In summary the study should be analysed using logistic regression and you must justify the “cut-off” you are using.

The author must respond to these before a decision on publication can be
reached. For example, additional necessary experiments or controls, statistical mistakes, errors in interpretation.

- Minor Essential Revisions

The manuscript is well written and the English is excellent.

I will make comment on minor details when the manuscript has been re-submitted

**Level of interest:** An article whose findings are important to those with closely related research interests

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

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

'I declare that I have no competing interests'