Reviewer’s report

Title: Prevalence and determinants of menstrual regulation among ever-married women in Bangladesh: evidence from a national survey

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Reviewer: Ahmed Hossain

Reviewer's report:

1. The study has extracted data from the latest and nationally representative 2014 Bangladesh Demographic and Health Survey (BDHS). However, the data is about 5-6 years old.

2. The authors define the outcome variable from a question "have you ever used MR?" and this question was asked to those women who have ever heard of menstrual regulation (MR). If a woman ever heard of MR then how she would give a response of using MR. There will be chance of many false positives and false negatives response from the women that will create bias in the results.

3. The authors mentioned, "this study extracted a subsample of 8,430 ever-married women aged 15-49 years". Besides, the authors mentioned the mean (standard error) age at first marriage of the women was 16.19 (0.04) years. It appears the data is skewed in the left side.

3. The overall prevalence of MR was 12.26% (95% CI 11.13-13.38%) among the ever-married women in Bangladesh. Again the authors mentioned in the introduction "The abortion ratio (the number of abortions per 100 live births) has increased from 18 in 2010 to 35.5 in 2014"… This is a big gap between the numbers. Need explanation.

4. The authors mentioned in the discussion section "MR services are available in the capital city of Bangladesh due to the highest concentration of most of the public and private clinics, hospitals, and NGOs than other divisions." Therefore, this could be a reason for high prevalence of MR in Dhaka city compared to the other cities. It is also not clear whether the authors took migration between cities into account for their analysis.

5. Avoid bringing the issues that the authors did not consider in the analysis. For example the authors mentioned "family member of husband such as in-laws may have an influence on the decision making process regarding use of MR by women due to the existing sociocultural settings"

6. There is always a relationship between level of education and employment of women. But the authors found level of education far from significance whereas the employment status is significant. Need explanation.
7. The background justification to the article is weak. It does not sufficiently well describe the context of the project, i.e. why you are proposing this research, why it is important/necessary, or who will benefit from this research and how.

There is a fact sheet from Guttmacher mentioned that "The annual rate of MR in 2014 was 10 per 1,000 women aged 15-49, down from 17 in 2010." But the authors found it 12.26% (95% CI 207 11.13-13.38%) among the ever-married women. Why the prevalence between two studies are different?

8. The authors mentioned they used multivariate mixed-effect logistic regression for their analysis. Mixed means there should have fixed and random terms in the model. I don't understand where they have found a random term in a cross-sectional survey?

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An article of limited interest

Quality of written English
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Acceptable

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