Reviewer’s report

Title: Discordance in Self-Report and Observation Data on Mistreatment of Women by Providers during Childbirth in Uttar Pradesh, India

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Reviewer: Patience Afulani

Reviewer's report:

The study aims to assess the discordance between self-reported and observed measures of mistreatment of women during childbirth in public health facilities in Uttar Pradesh, India, as well as correlates of these measures and their discordance.

It makes an important contribution to the literature on mistreatment of women during childbirth.

In general, the paper is well written. Although there are a number of limitations with the methods, including the measures and procedures used for the data collection, these have been noted and discussed. I do however think some additional discussion of the primary independent variable will be useful.

1. The items included in the observation are very limited—mainly verbal and physical abuse which tend to have lower prevalence than other domains of mistreatment. It will have been useful to see discordance/concordance on the items that were dropped such as supportive care from provider and lack of privacy during delivery. In addition, three of the items among the 6 items that were both observed and self-reported likely have different prevalence from self-reports and observations because the women and observers had different vantage points. It is possible that a woman might not notice during second stage if the provider pushed her abdomen forcefully or if her baby is forcefully pulled out (depending on the force) while this may be obvious to the observer. Even then, what is considered forcefully might be very subjective even among observers. Similarly, if the woman experienced a problem due to unavailability of the provider, the observer might miss it if it is not an obvious problem. It is therefore not surprising these have the lowest Kappa, with the former being more likely to be observed and the latter more likely to be reported. Thus, while under-reporting is a potential reason for the discordance, the other reason is women, as well as providers in the last case, may actually not be identifying or interpreting the issue as something inappropriate. The limitations of these measures and their potential effects of the results should therefore be discussed.

2. Why were only these six mistreatment items observed?
3. It looks like the additional items in the version of the mistreatment tool used in this study included more communication related items than other domains, and communicating information to women seems very poor. Might this account for the much higher rate of mistreatment based on the longer tool? In the discussion of the difference in prevalence of mistreatment based on the different tools, it is important to highlight the major difference in the content of the tools to help identify what is contributing to the big difference in the prevalence of mistreatment.

Other issues that need to be clarified include

4. How were women recruited? Were they recruited before they went on admission or at the time of admission? Were all women on the ward during the observation period observed or only some were observed? Did you obtain consent of both providers and mothers for the observation?

5. What was the period of observation? Did it end after a woman delivered or continued till after discharge from the facility. This is important to assess if some of the predictors should be included, and to tease out the role of temporal sequence in the discussion on causality. For example if observations ended at delivery then postpartum and neonatal complications as well as length of stay at the facility post-delivery occurred after the mistreatment, which will be consistent with your previous work, and should not be considered predictors as shown in the logistic regression in tables 4 and 5.

6. Do you have information on sex of providers or all were females? And also on number of providers present during the delivery, day of the week, time of observations, and number of laboring women on the ward at the time of the observation. It will be interesting to see if these are associated with mistreatment.

7. Table 3 is not very clear. Usually the table is set up to show group differences for a particular outcome; eg % reporting mistreatment or observed to be mistreatment. The percentages seem to be set up this way, which makes the second column redundant, since we can infer one from the other: % not reporting mistreatment = 100% minus % reporting mistreatment.

You however note that "*p-values assess differences between groups who experienced and did not experience mistreatment during childbirth on the given variable, based on chi-square analyses for categorical variables and t-tests for continuous variables." This seems true for the continuous variables (I am assuming 26.8 and 26.7 are the mean ages for those who reported mistreatment and no mistreatment). But it is confusing for the categorical values. For example, does the 79.5% for literacy represent the proportion of literate women who were mistreated or the proportion of literate women among those who were mistreated? I assume the later, with the
chi-square assessing the differences in mistreatment between literate and illiterate women. That is you are testing for the difference between 79.5 and 75.2 and not between 79.5 and 20.4. This interpretation seems consistent with the description of the results in the text. It took me a while to understand what you were comparing in table and I think others might have the same problem. So please check this to be sure what you are comparing and set up the table to make it easy for the reader to understand. The continuous variables in this table might be better recoded into categorical variables for consistency of the comparison. This might also help to examine the associations better, given the effects of age and age at marriage may not be linear. The table can be also be made less congested by excluding the columns on % not reporting mistreatment, since the % in the two columns add up to 100.

8. References 14 and 22 seem to refer to the same publication; please check

Overall this is an important paper given the challenges in measuring mistreatment.

Thanks for the opportunity to review it.

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