Reviewer’s report

Title: Understanding mistreatment during institutional delivery in Northeast Nigeria: a mixed-method study

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Reviewer: Kathleen Banks

Reviewer's report:

Overall comments

Thank you for the opportunity to review this insightful contribution to the respectful maternity care literature. Appreciating the high MMR and the low level of facility deliveries in this part of Nigeria, the evidence presented here provides context on how the experience of care may relate to women's birth decisions.

The data are very rich and have the potential to inform respectful maternity care (RMC) initiatives in Gombe State. In the discussion section, the authors have room to comment on how the findings may relate to efforts for increasing facility deliveries and improving quality of care, including RMC. For example, women reported that verbal and physical abuse was mostly due to the fault of the laboring woman, and that they would prefer to be in a medicalized setting with verbal abuse rather than give birth at home with dignity. How could this inform future community outreach and facility-based programs?

One question of note is why the authors chose not compare the frequencies of experienced mistreatment with women's characteristics to explore potential associations. Was there a reason this analysis was not included?

Finally, I ask the authors to please clarify information on the characteristics of the participants sampled in each analysis, the queries for which are further described in subsequent sections. Specifically: is the purpose of comparing quantitative and qualitative data to describe the manifestation of mistreatment in ten specific facilities? The Gombe State in Nigeria? Additionally, Kruk, Ratcliffe and others have noted that there are differences in frequencies of reported mistreatment immediately post-delivery and those which are reported 4-8 weeks post-delivery. Could the time discrepancies in administrating the tools account for any incongruities in the quantitative (e.g. exit interview at discharge) and qualitative (e.g. median six months post-delivery) data sets? Exploring the differences between the data sets and presenting them in a compelling manner will strengthen the overall argument of the paper.
Plain English summary

Page 4, lines 16-18: "Our study showed that the occurrence of mistreatment during institutional delivery was high and was related to both health system constraints as well as what the health workers do."

Understanding that this summary is general, nuance is important for this particular sentence. The data are from women's perspectives; multiple data sources, such as direct observation and facility assessments, would be needed for this sentence to be absolute. Further, by stating that mistreatment is "related" to health system constraints etc implies analysis using independent variables. Rather, the Bohren (2015) typology, as used in this study, lists health system constraints and certain provider behaviors in and of themselves mistreatment. A more appropriate sentence would be "Our study showed that women reported high levels of mistreatment during institutional delivery, which included health system constraints and poor health worker behavior."

Background

Lines 7-14: "A combination of the effectiveness of care given and the negative experience from services received shapes users' perception of care, which in turn influences health-seeking behaviour.[11] Considering every pregnant woman is at risk of obstetric complication, [12] access to timely and appropriate obstetric care, estimated to prevent about 75% of maternal mortality, remains imperative.[11] Further, evidence has shown that early presentation by a pregnant women with complications combined with good quality of care, significantly contributes to the survival of mothers and their newborns. [11]"

Thaddeus and Maine (1994) is seminal literature in maternal health; however, there are more recent substantive articles that better support the argument surrounding quality/experience of care and maternal mortality. I would suggest reviewing the other works cited in the paper and reference those appropriate for this rationale.

Page 6, lines 4-9: "we aimed to explore the quality of care relating to the prevalence and manifestations of respectful maternity care practices during institutional birth in Gombe State."
A small but very important distinction: this study focuses on how mistreatment manifests, which is different from respectful maternity care. The latter implies practices that are observed or implemented to improve quality, respect and dignity during childbirth.

Quantitative data collection

Page 7, lines 16-19: "In each of these 10 facilities, two trained data collectors and a supervisor were posted in shifts covering day and night deliveries, seven days a week for approximately four weeks. This was determined to be the amount of time needed in these high-volume facilities to recruit a sample of 320 births."

The sample size approximates 8 births per facility per week, which may be seen as low compared to other facilities in low resource settings. Understanding that mistreatment is associated with structural deficiencies in low resource settings, it would be useful to have more information on the environment in which women gave birth. Could you please provide contextual variables, including: client/provider ratio (if available); annual deliveries per facility; number/type of staff per facility; number of beds, number of providers per shift and their responsibilities at the health facilities (e.g. deliveries only, all maternal health care, all primary care, all services etc.).

Study instrument (pages 7-8)

Developing quantitative tools remains one of the more challenging aspects of studying mistreatment during childbirth. Please give more information on how the tool was created. For example, how were the questions chosen and tested? Was the pilot site different from the study site? Is so, how did it compare to the study site?

Qualitative data collection/analysis (pages 8-11)

The sections on qualitative data collection and analysis are excellent; the rationale for each decision is well-presented.

Page 10, lines 23-25: "The coding was determined a priori to align the qualitative findings to the quantitative results, to aid understanding how the quantitative findings were manifest."

It would be useful to the reader, particularly if their primary discipline is another form of qualitative analysis, to note that thematic content analysis is the only form of qualitative analysis
that allows for using quantitative results as the basis for a priori themes, rather than only cite the supporting text.

The relationship between the quantitative and qualitative respondents should be clarified here or in the study design section. In the study design section, it is noted that, of the two LGAs chosen for the qualitative data collection, one was in a low facility delivery area while the other was in an area with high level of facility deliveries. However, in the quantitative sample, it is noted that women were recruited from 10 facilities that had the highest deliveries in Gombe. Did the women who were sampled for the IDIs/FGDs attend the same facilities where the exit interviews were administered? Is so, please be specific. If not, how does this affect the analysis? Do you feel confident in using thematic content analysis if the facilities are different? Explain why in the discussion section or the strengths/limitations section.

Minor edit on page 11, lines 11-14: the section on ethics would be better presented in the study design section.

Results (pages 11 - 25)

Characteristics of women

Were there any statistically significant differences between the two samples of women? For example, there were only 2% primigravida in the exit interview sample, yet there were 24% in the IDI/FGD sample. Could this have affected responses? Also, Kruk, Ratcliffe and others have noted that there may be differences in frequencies of reported mistreatment immediately post-delivery and those reported 4-8 weeks post-delivery. Could the difference in administrating the tools account for any discrepancies in the quantitative (e.g. exit interview at discharge) and qualitative (e.g. median six months post-delivery) data sets?

Reported prevalence and manifestation of respectful maternity care practices during institutional birth

The results in this section are described in a different order than in Table 3. It would better for the reader if the narrative corresponded with data presentation in the table, as well as presenting the table earlier in this section.

Poor rapport of women and providers
Limit the illustrative quotes to 1-3. Use the saved space in the discussion section to amplify why the data presented are important.

Discussion

The discussion section relates well to other mistreatment studies. Given the rationale in the background section that the quality and experience of care relates to facility birth attendance and maternal health outcomes, I would advise the authors to relate the perceived mistreatment described by women to broader maternal health initiatives. How could the experiences documented here relate to potential care-seeking behavior? What does this mean for planned and ongoing respectful maternity care initiatives in Gombe?

Page 25-26, lines 24-2: Please state the prevalence in this study to compare it with the prevalence presented from the other studies.

Pages 26-27, lines 23-3: Did this specific example occur in any of the health facilities in this study?

Strengths/Limitations

Please see comments/questions above about the differences in samples. Based on this information, are there strengths or limitations in using two separate groups and types of analyses?

Would stratifying the frequency of mistreatment enhance your argument? Why or why not?

Level of interest

Please indicate how interesting you found the manuscript:

An article of importance in its field

Quality of written English

Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests

Please complete a declaration of competing interests, considering the following questions:

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