Author's response to reviews

Title: Perceptions of health care providers and patients on quality of care in maternal and neonatal health in fourteen Bangladesh government healthcare facilities: a mixed-method study

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Author's response to reviews: see over
Dear Dr. Kimani-Murage

I would like to thank you for providing us the opportunity to enrich the manuscript “Perceptions of health care providers and patients on quality of care in maternal and neonatal health in fourteen Bangladesh government healthcare facilities: a mixed-method study”. We have slightly changed the title and previously it was stated as follows: “Perception of health care providers and patients on quality of care in maternal and newborn health in fourteen government health facilities of Bangladesh - a mixed method study” (MS ID: 1079450313154507).

This letter addresses the issues raised by the reviewers. We thank them both for their comments which have improved the manuscript. The following is a list of the reviewers’ summary comments and our responses:

**Response to reviewer 1:**

**Major Compulsory Revisions**

1) The manuscript has many grammatical errors and the authors need to extensively edit the manuscript before it is accepted for publication.

*For improving the English language and address the grammatical errors the manuscript including the reference and tables was copyedited by Edanz as BioMed Central recommended.*

**Background**

1) The authors should briefly describe the policy environment related to MNH in Bangladesh (i.e., are there any national level policy documents that provide strategic direction and guide the implementation of programmatic initiatives on MNH? Do the documents outline the priority areas or gaps related to MNH?)

*Policy environment related to MNH in Bangladesh has been included in the background section.*

**Methods**

1) Lines 1-5: Authors need to clearly describe which of the health facilities (MCWCs or UHCs) are sub-district hospitals.
Description has been provided as follows:

The study settings were district level hospitals namely two District Hospitals and two Maternal and Child Welfare Centres (MCWCs); and ten sub-district level hospitals called Upazila Health Complexes (UHCs).

2) Line 2-3: Revise “... are the primary health centres and the first point of referral.” “...serves a population of between 200,000 and 400,000 and a bed capacity of between 31 and 50.”

The sentence has been revised as suggested by the reviewer.

3) Delete Line 5

Deleted.

4) Was the structured interview tool translated into local languages used by the respondents?

The structured interview tool was translated into Bangla and the following sentences were added in the manuscript:

The structured questionnaire was first developed in English, later it was translated into Bangla for the use of the respondents. To check the internal validity the Bangla version was retranslated into English.

5) Line 6: Insert Table 1 between “Quantitative methods” and “Ethical issues”

Table 1 inserted between “Quantitative methods” and “Ethical issues”

Qualitative methods

1) Although Table 1 shows the cadres of staff interviewed for FGDs and IDIs, the authors should briefly discuss the category of staff interviewed by each interview technique.

The category of staff interviewed by each interview technique has been included. The health administrators, and health professionals of MNH services including consultants, medical officers, nurses and family welfare visitors of three types of health facilities were selected for GDs. IDIs were conducted with the paramedics, including laboratory technicians and pharmacists, supervisors and ancillary staff of maternal and neonatal wards.
2) How long were the data collectors trained?

Following sentence has been included:

A total of four teams were involved in data collection process and they received a three-day training prior to conduct GDs and IDIs by the investigators.

Quantitative methods

1) For quality of care assessment, did the authors have a framework that guided tool development and data analysis? For example, Donabedian framework of healthcare quality (comprising structure, process and outcomes).

No such framework of quality of care assessment was followed during tool development. Rather wise men approach was utilized during the development of the instruments. Through series of workshops with obstetricians, pediatricians and relevant program personnel from the Ministry of Health and Family Welfare, Bangladesh, the variables of the instruments were identified.

2) Was the structured interview tool translated into local languages used by the respondents?

The structured questionnaire was first developed in English, later it was translated into Bangla for the use of the respondents. To check the internal validity the Bangla version was retranslated in to English.

3) Was the questionnaire subjected to validity and reliability tests?

The instrument was initially developed in English and then translated into Bangla for the survey. To check the internal validity the Bangla version was retranslated in to English. Prior to finalization, the instrument was pretested and adjustments were made where relevant.

Ethical Issues

1) With regard to confidentiality, the authors should provide a description of how data were stored and who had access to the data

Information regarding data storage and data access are included in the ethical issue section as follows:

Hard copies of the collected data were kept in a secured place. The data which were audio recorded had access to the interviewers and the investigators. The electronic databases were secured by setting a password and had access only to the investigators and the data manager involved in the study.
2) How was the study participants assured of their privacy and confidentially of information given? Were they advised that their participation was voluntary?

Privacy and confidentiality has been included in the ethical issue section as follows:

For privacy and confidentiality of information the study participants were reassured that all information received would remain anonymous and the collected data would be used for this research only. They were also informed that their participation would be voluntary and they could withdraw themselves at any point from the interview.

Results
Quantitative
1) Lines 11-13: Revise sentence to read: The average mean waiting time before being seen by a health provider was 10.95 minutes, 9.67 minutes and 14.79 minutes at the district hospitals, MCWCs and UHCs, respectively.

The line has been revised.

2) Table 2: What was the average age of the participants who participated in the exit interviews? Authors need to present results on other socio-demographic factors such as education level, marital status, parity level.

Mean age of the participants provided in table 2

Other than age we did not collect data on socio-demographic factors and that has been described as limitations in discussion sections.

3) Table 3: Provide the total N for the percentages presented

Total N for the percentages is provided

4) Table 3: Were the differences between the type of hospitals and quality of care domains statistically significant? Show the p values for the results presented in the table.

P value provided in the table 3

Text was changed in quantitative part of the methodology

Text was changed in result part
5) Table 3: Domain on “Satisfied with MNH services received” – What were the specific services? Was there variation in satisfaction levels across the specific services? How was satisfaction measured – i.e., Likert-type scale or yes/no?

- The services included in the domain of satisfaction have been mentioned in the quantitative part of the methodology which are as follows:
  - The pretested structured questionnaire included questions related to the waiting time to receive care, level of satisfaction with the cleanliness of the hospital, drug supplies, adequate time given by HCPs and the opportunity to ask questions, as well as the MNH services provided to the patients.

- Satisfaction level was measured by yes/no. We did not use Likert-type scale

Discussion

1) Overall, this section should be organized (paragraph by paragraph) based on key themes as discussed in the results section

The discussion section has been reorganized by key themes as suggested by the reviewer.

2) Another limitation of the study is that quality of care was assessed at the outcome level only (client perspective) and not at the structure and process levels

You are aware that the principal author is a PhD student. In the PhD program at least four papers relevant to the research field (quality of care) need to be published. The current paper covered the quality of care by service providers’ and clients’ perspectives. We intent to publish second paper on the structure and process aspects of quality of care of the same health facilities to address the objectives of PhD program.

Conclusion

1) What are the key messages? How can the evidence inform policy and practice to improve quality of care of MNH services in Bangladesh?

2) Line 3: “Further actions are needed to …” State the actions that can be taken.

The conclusion has been revised as suggested by the reviewer (including comment 1 and 2), which is as follows

Conclusion: The quality of MNH care is poor in district and sub-district hospitals in Bangladesh because of a lack of healthcare personnel and logistic support, including equipment, essential drugs, and laboratory needs. This information could be used to strengthen the national-level policy for improving the quality of MNH care at the facilities. In each type of public hospital in Bangladesh, there are fixed
number of healthcare personnel and a fixed amount of logistic support, as specified by the GoB. However, the population of each district or sub-district is not the same. Therefore, a change in the policy is required to ensure the distribution of healthcare personnel and logistic support should be proportionate to population of the district or sub-district. In our study, it was also revealed that healthcare providers were dissatisfied with their quality of care; however, the majority of their patients were satisfied with their level of care. This is mainly because the patients were unaware of their health rights. An awareness-raising activity should be launched to educate patients that it is their right to obtain quality care.

Minor Essential Revisions

Abstract

1) Line 5: Add the word “are” after rates... and replace the word “compare” with “comparison”

Added the word “are” and replaced the word “compare” with “comparison”

2) Line 9: Replace the word “on” with “with” and remove “they”. Use “sub-district” instead “below”

Replaced the word “on” with “with” and removed “they”. Used “sub-district” instead “below”

3) Line 14: Revise the sentence to read...Client exit interviews were conducted with 112 patients of the attendants from maternity...

Changed.

4) Line 15: Replace the words “...were interviewed during their exit from the hospital” with “before being discharged from the hospital”

Replaced

5) Line 19: Replace “manpower” with “staff”

Replaced

6) Line 26: Replace “diseases” with “health conditions”

Replaced

7) Conclusion: Line 1: Replace “...below” with “sub-district” level hospitals...”

Changed.

Background
1) Line 12: ...“occur” should be “occurred”
*Changed.*

2) Line 15: add “s” to maternal death
*Added.*

3) Line 16: Use “key” instead of “significant” and add “s” to “achievement”
*Changed.*

4) Line 18: Remove “has” after MMR and create spacing between “322to...”
*Removed and created spacing.*

5) Line 19: Remove “has” after NMR and create spacing between “52to...”
*Removed and created spacing.*

6) Line 21: Revise the sentence to read “… to achieve MDGs 4 and 5”
*Revised*

7) Line 24: ...replace “the” with “a” major contributing factor...
*Replaced*

8) Line 4: Rephrase sentence “These inadequacies place patients and fetuses at risk.” Suggestion: “The weak health systems place women and babies at risk for morbidity and mortality”
*Suggestion accepted*

9) Lines 4-6: Cite the reference for the statement beginning with “Similar inadequacies could also...”
*Added.*

10) Line 10: Remove the comma after the word “care”
11) Line 11: Delete the words “For an initial understanding...” Instead the sentence should begin with: “This study was conducted to...”

Deleted

12) Lines 13 & 14: Second part of sentence should be revised to “…patients satisfaction with the MNH care received from district and sub-district level hospitals in Bangladesh.”

Revised as suggested by the reviewer.

METHODS

1) Lines 17-20: Revise to read “…Mixed method approaches (both qualitative and quantitative) were adopted to collect data between November and December 2011. Specifically, focus group discussions (FGDs) with xxxxx and in-depth interviews (IDIs) with xxxxx to explore health care providers’ perception on the quality of care. Client exit interviews were conducted with patients and their attendants to assess their satisfaction with care received at the facility.

Revised as suggested by the reviewer.

2) Lines 21-24: Revise sentence – Fourteen government hospitals in Thakurgaon and Jamalpur districts were purposively selected as the study settings based on assessment of progress towards achievement of MDGs 4 and 5. Thakurgaon was selected for high performance and Jamalpur for low performance. Authors need to cite the source of evidence used to assess performance of the districts.

Revised.

Reference was there (13)
Qualitative methods

1) This section needs major edits to correct the grammatical errors. The authors should abbreviate focus group discussions as “FGDs” and not “GD”

As per the editorial suggestion, the manuscript for copyedit by Edanz.

In our study, group discussions (GDs) were conducted, not focus group discussions (FGDs).

Results

Qualitative

1) Line 15: Instead of “Qualitative part” revise to “Qualitative results”

Revised as suggested.

2) Lines 17-25: The paragraph needs to be removed. Instead the authors should state how the results will be structured or presented – See Lines 2-5.

We would like to keep the paragraph as it is.

3) The IDI results should be incorporated within the key themes instead of being presented separately – see lines 17-25 & Lines 1-19.

IDI results has been incorporated within the key themes as suggested.

4) The interview quotes should be indented. Also, at the end of each quote, state if it is an IDI or FGD, category of staff interview, place (district).

Quotes are indented and IDIs or GDs mentioned. Staff category and places have been included.

Quantitative

1) Line 21: Instead of “Quantitative part” revise to “Quantitative results”

Revised as suggested.

2) Line 24-25: Delete sentence beginning with “Eight exit interviews from each hospital were conducted.” – This is repetition.

Deleted.
3) Lines 1-4: Move this paragraph to the methods section under “Quantitative”

Moved as per the suggestion of the reviewer.

Discussion

1) Restate the study objective before discussing the key findings

The study objective was restated before discussing the key findings.

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

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

'I declare that I have no competing interests'

Response to reviewer 2:

Major Compulsory Revisions

This paper focuses on the quality of care in 14 government facilities in two districts in Bangladesh using a mixed method approach. It uses qualitative data from in-depth interviews with selected clinical and non-clinical staff, providing their perspective on problem areas resulting in poor service delivery and the quality of care provided. These data are supplemented with patient information on satisfaction. With the focus on MDGs 4 and 5, this topic is of considerable interest to bringing about declines in maternal and child mortality and improvements in health in general. Listed below are comments that will help strengthen this research paper.

Background section:

• While interesting data on shortcomings of the health system in the areas of shortage of manpower, workload and overcrowding, inadequate logistics and laboratory support, under use of patient management protocols, lack of training and insufficient supervision are presented as influencing quality of care, quality of care could be better defined in the background section and the specific domains under which quality of care is determined could be better explained based on current literature.

In response to reviewer 1’s comment, we addressed the above issue.
Methods and results section:

- With data on different levels of facilities being presented, it would be useful to provide more information on government or other norms regarding manpower, training, protocols etc. for the different levels of facilities included in this study so that they can be compared to their current situation. The presentation of results treats all the facilities similarly.

*This study intends to explore the perception of health service providers regarding the quality of maternal and neonatal health care, as well as to investigate patients’ satisfaction with the MNH care received from the district and sub-district hospitals in Bangladesh. The information that has been provided by the respondents was included in the result section.*

Results section:

- While provider perceptions of these areas are highlighted, it would be useful to qualify the statements by supplementing them with any available facility level data in the same areas. This would make the results even stronger. For example, are there facility level data on staffing, availability of protocols, training, lab support etc.?

*This is beyond the scope of this paper. The current paper covered the quality of care by service providers’ and clients’ perspectives. We intend to publish second paper on the structure and process aspects of quality of care of the same health facilities to address the objectives of PhD program.*

- Given that there are two districts, one high performing and one low performing, the differences in findings between the two districts are not highlighted. Despite similar problem areas in quality of care in both districts, it appears that the outcomes are very different. This is not very clear.

*Though the districts are labeled as high and low performing with certain criteria (added in background section), however, no difference was observed about the perception of the health care providers with quality of MNH care and satisfaction level of the clients.*

- The authors may want to consider combining the results based on the perceptions of support staff (in depth interviews) and the earlier section highlighting perceptions of health care providers (group discussions) as they cover the same topics and are along the same lines.

*Changes have been made. Both the GDs and IDIs findings have been described together under the same thematic areas.*

- It is useful to obtain information on patient satisfaction. However, in this case as well given the likely difference in outcomes in the two districts, differentiation in patient satisfaction by districts would be useful in Table 3.

*We did not have any intent to compare the districts.*
• Five areas of patient satisfaction have been identified. Some basis for the selection of these areas would be useful – how were they selected? Also, were these questions asked as general yes/no questions? Or did patients rate their level of satisfaction based on a Likert scale or rating, which would be very useful information to have. A general yes/no question masks the extent of satisfaction in each area and to what extent each area matters.

_Wise men approach was utilized during the development of the instruments. Through series of workshops with obstetricians, pediatricians and relevant program personnel from the Ministry of Health and Family Welfare, Bangladesh, the areas of patient satisfaction were identified._

_Satisfaction level was measured by yes/no. We did not use Likert-type scale_

• Please check that the references are specified according to journal guidelines. Some of the references need to be expanded. Example 5,6 and others. Some only have a weblink but no titles or years.

_Checked and copyedited by Edanz._

**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:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
I declare that I have no competing interests

**Regarding References:**

_Reference 13, 14, 15 and 33 are the published reports/documents of different organizations of Bangladesh, as a result these may not be found in scholarly Internet search._

The paper is original and has not been submitted elsewhere for publication. All authors read the revised version and agreed to submit it for publication.

It will be highly appreciated if you could consider publishing the manuscript in your journal.

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