

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Multilevel analysis of individual and community factors of awareness of obstetric fistula among women of childbearing-age Nepal: analysis of recent Nepal Demographic and Health Survey data 2022.
<b>AUTHORS</b>	Fente, Bezawit; Abraham Asnake, Angwach; Negussie, Yohannes Mekuria; Asmare, Zufan; Asebe, Hiwot; Seifu, Beminate; Melkam, Mamaru

### VERSION 1 - REVIEW

<b>REVIEWER NAME</b>	Abukari , Alhassan
<b>REVIEWER AFFILIATION</b>	Wisconsin International University College Ghana, General Nursing
<b>REVIEWER CONFLICT OF INTEREST</b>	None
<b>DATE REVIEW RETURNED</b>	07-Jun-2024

<b>GENERAL COMMENTS</b>	<p>The authors used secondary data (DHS) from Nepal to conduct a multilevel analysis of the individual and community-level factors regarding the awareness of obstetric fistula among women of childbearing age. The authors are commended for this important work since the area is understudied. Below are some recommendations that may help strengthen the study:</p> <ol style="list-style-type: none"><li>1. Abstract: Please can you check the first sentence for clarity</li><li>2. The same clarity is required for the first sentence in the Introduction</li><li>3. Introduction: Please is it possible to highlight more evidence on some earlier studies and interventions relative to OBF awareness in the Nepal context? This will further strengthen the background</li><li>4. Please provide a more detailed description of the study variables, especially the independent variables: individual-level and community-level variables in separate headings.</li><li>5. Please what software was used to conduct the analysis? Sorry if I missed it, but I did not see that mentioned in the manuscript.</li><li>6. Please can you highlight the practice implication of these findings in the discussion to direct public health practice.</li><li>7. What are the recommendations regarding further studies in this area in light of these findings highlighted in the survey?</li><li>8. Generally, the study is well written!</li></ol>
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<b>REVIEWER NAME</b>	Hareru, Habtamu
<b>REVIEWER AFFILIATION</b>	Dilla University College of Health Sciences, public health
<b>REVIEWER CONFLICT OF INTEREST</b>	No competing interests
<b>DATE REVIEW RETURNED</b>	16-Jun-2024

<b>GENERAL COMMENTS</b>	<p>Concerning my area of expertise and past publications, I am grateful for the invitation to review the article "Multilevel Analysis of Individual and Community Factors of Awareness of Obstetric Fistula among Women of Childbearing-Age Nepal: Analysis of Recent Nepal Demographic and Health Survey Data 2022.". Before recommending it for publication, I want to provide the author's recommendations and feedback, as the author raises significant points that identify awareness gaps about obstetric fistulas.</p> <p>Abstract - The outcome (prevalence) is better reported with a 95% confidence interval, and the associated factors' adjusted odds ratio should be reported with a 95% confidence interval.</p> <ul style="list-style-type: none"> <li>- How did you say your result was low? What is your cut-off point?</li> <li>- Kindly revise your suggestion in light of your findings. It appears that your recommendation is a step forward for people who won't directly benefit from it.</li> </ul> <p>Introduction</p> <ul style="list-style-type: none"> <li>- an unusual hole? or abnormal opening</li> <li>- line 85-86." One of the most severe and disastrous birth injuries is an obstetric fistula. It is distinguished by a hole that occasionally includes the rectum and is located between the birth canal and the bladder ( Eliminate redundant phrases or combine them with the definition of OF in the first paragraph).</li> <li>- Research indicates that between 50,000 and 100,000 cases of OBF are reported globally each year. When was reported? line 88-89.</li> <li>- Kindly note that simply declaring that no national study has been done is insufficient to start your investigation; it would be advisable to include additional evidence for the necessity of the current study and its potential contributions to the literature worldwide on OF awareness as well as to the women of Nepal.</li> </ul> <p>Methods</p> <ul style="list-style-type: none"> <li>- PSU?</li> <li>- the study design? the population - the Eligibility criteria?</li> <li>- Where are the Sampling procedures?? better to use a schematic presentation?</li> <li>- Finally, the variables were considered statistically significant if the P-value was less than 0.05 with the 95% confidence intervals.???</li> <li>- How was the goodness-of-fit test declared? are your data a good fit?</li> <li>- Multicollinearity amongst the individual- and community-level variables?</li> <li>- How did you manage missing data?</li> </ul> <p>Result/Discussion/conclusion</p> <ul style="list-style-type: none"> <li>- In the discussion section, the authors clearly described the findings but did not report on the practical implications of those findings ( the discussion part will be expanded beyond this..). The authors did a good job of reporting the result portion, but their recommendation is not feasible, so I will recommend the authors make recommendations based on their findings.</li> </ul> <p>Limitations</p> <ul style="list-style-type: none"> <li>- Management of missing data??</li> <li>* Lastly, the author was required to do a grammar edition and language revision.</li> </ul>
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## VERSION 1 – AUTHOR RESPONSE

### Reviewer 1

The authors used secondary data (DHS) from Nepal to conduct a multilevel analysis of the individual and community-level factors regarding the awareness of obstetric fistula among women of

childbearing age. The authors are commended for this important work since the area is understudied. Below are some recommendations that may help strengthen the study:

Response: Thank you very much for the constructive comments and suggestions you provided that enhance the scientific quality of the manuscript for easily understandable.

1. Abstract: Please can you check the first sentence for clarity

Response 1: Thank you for your comments, we amended it as you recommended to be more understandable.

2. The same clarity is required for the first sentence in the Introduction

Response 2: Thank you for your suggestion, we have addressed your suggestion please take a look at manuscript numbers (70-73).

3. Introduction: Please is it possible to highlight more evidence on some earlier studies and interventions relative to OBF awareness in the Nepal context? This will further strengthen the background.

Response 3: Thank you for your suggestion, to the best of our knowledge there is no study conducted in Nepal about knowledge of obstetric fistula please take a look at line number (114-115).

4. Please provide a more detailed description of the study variables, especially the independent variables: individual-level and community-level variables in separate headings.

Response 4: Thank you for your recommendations; it was addressed in the manuscript line number (132,155).

5. Please what software was used to conduct the analysis? Sorry if I missed it, but I did not see that mentioned in the manuscript.

Response 5: Thank you for your comments, it has been addressed in the manuscript line number 153.

6. Please can you highlight the practice implication of these findings in the discussion to direct public health practice?

Response 5: Thank you for your suggestions, we have included your recommended line number (230,233).

7. What are the recommendations regarding further studies in this area in light of these findings highlighted in the survey?

Generally, the study is well written!

Response 5: Thank you for your comments, we recommended that future researchers to develop advanced practical solutions to implement the awareness creation about OBF.

## **Reviewer: 2**

Dear Editor.

Concerning my area of expertise and past publications, I am grateful for the invitation to review the article "Multilevel Analysis of Individual and Community Factors of Awareness of Obstetric Fistula among Women of Childbearing-Age Nepal: Analysis of Recent Nepal Demographic and Health Survey Data 2022."

Before recommending it for publication, I want to provide the author's recommendations and feedback, as the author raises significant points that identify awareness gaps about obstetric fistulas.

1. Abstract - The outcome (prevalence) is better reported with a 95% confidence interval, and the associated factors' adjusted odds ratio should be reported with a 95% confidence interval.

Response 3: Thank you for your recommendation; it was addressed in the manuscript line number (43-50).

2. How did you say your result was low? What is your cut-off point?

Response 2: Thank you for your questions; we said low relative to the previous publication and it is low due to comparisons with other studies.

3. Kindly revise your suggestion in light of your findings. It appears that your recommendation is a step forward for people who won't directly benefit from it.

Response 3: Thank you for your comments; the concerns were addressed in the manuscript line number (300,301).

4. Introduction

an unusual hole? or abnormal opening line 85-86." One of the most severe and disastrous birth injuries is an obstetric fistula. It is distinguished by a hole that occasionally includes the rectum and is located between the birth canal and the bladder (Eliminate redundant phrases or combine them with the definition of OF in the first paragraph).

Response 2: Thank you for your comments, the concerns were addressed in the manuscript as you suggested.

5. Research indicates that between 50,000 and 100,000 cases of OBF are reported globally each year. When was reported? line 88-89.

Response 5: Thank you for your question, it was published in 2018 as it is included in the citations.

6. Kindly note that simply declaring that no national study has been done is insufficient to start your investigation; it would be advisable to include additional evidence for the necessity of the current study and its potential contributions to the literature worldwide on OF awareness as well as to the women of Nepal.

Response 6: Thank you for your comments, we have included the justification based on your suggestions please take a look at the manuscript line number (113,116).

7. Methods

PSU?

Response: 7 Thank you for your suggestions, we have included them in line numbers (126,130).

8. The study design? the population - the Eligibility criteria?

Response: 8 Thank you for your comments, the cross-sectional study design among all women from the household selected for the men's survey and households who were not selected for the men's survey were included for the fistula data collections (131,135).

9. Where are the Sampling procedures?? better to use a schematic presentation?

Response 9: Thank you for your suggestion; it was addressed in the manuscript line number (126,135).

10. Finally, the variables were considered statistically significant if the P-value was less than 0.05 with the 95% confidence intervals?

Response 10: Thank you for your recommendations; it was addressed in the manuscript line number (178-190).

11. How was the goodness-of-fit test declared? are your data a good fit?

Response 10: Thank you for your question, the fitness of the model was assessed and fitted look line numbers (167,170).

12. Multicollinearity amongst the individual- and community-level variables?

Response 11: Thank you for your question, the question was addressed in the manuscript line number 167.

13. How did you manage missing data?

Response 12: Thank you for your question, the question was addressed in the manuscript line number (168,169)

14. Result/Discussion/conclusion

- In the discussion section, the authors clearly described the findings but did not report on the practical implications of those findings (the discussion part will be expanded beyond this..). The authors did a good job of reporting the result portion, but their recommendation is not feasible, so I will recommend the authors make recommendations based on their findings.

Response 14: Thank you for your recommendations; it was addressed in the manuscript line number (312,314).

15. Limitations

Management of missing data??

Response 15: Thank you for your concerns, it was addressed in the manuscript we stated that missing data were handled by imputation, for categorical variables imputed by mode (highest frequency) whereas, for continuous variables imputed by mean or median after checking the normality of the data.

16. Lastly, the author was required to do a grammar edition and language revision.

Response 16: Thank you for your concerns, the language and typo errors were corrected by English experts and midwife professionals who have many papers in peer-reviewed journals throughout the whole manuscript based on your suggestion.