PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Pregnancy among Adolescents Girls in Humanitarian settings: A
	case in Refugee Camp of Gambella Regional state, Community
	Based Cross-Sectional Study, Southwest Ethiopia, 2021
AUTHORS	Bol, Koang Nyak; Negera, Ebissa; Gedefa, Abdi

VERSION 1 – REVIEW

REVIEWER	Makumbi, Frederick
	Makerere University, Epidemiology & Biostatistics
REVIEW RETURNED	16-Aug-2022
GENERAL COMMENTS	1) Sampling for the 414 participants needs to be fully describes. It seems you had multiple steps; household, and then adolescent. But this was not clearly done. For example you needed 421 adolescents, from 4100 from the camp, but you sampling interval was 9, and you mention that this was for household! which does not seem to be the case 2) Your tables need to be more clearly reformatted; the figures wrap around and one can not fully read the content of some cells, e.g. Table 5 3) Your age categorization of 10-16, 17-19 does not appear to be standard or justified 4) Your first limitation does not indicate the context being a limitation. How does this limitation affect your study?
DEVIEWED	Devil D
REVIEWER	Paul, R
	University of New South Wales, Centre for Big Data Research in Health
REVIEW RETURNED	17-Aug-2022

GENERAL COMMENTS	Comments:
	This is a well-designed study to estimate the prevalence of
	adolescent pregnancy in a refugee camp in Ethiopia. Most of the risk factors are obvious, however, this study reconfirmed the known risk factors in a different study setting. My main comment is how the prevalence of adolescent pregnancy in this study differs from the national rates in Ethiopia. This would help decision makers/readers to understand the situations in the refugee camp and take necessary action. I have a few more minor comments for
	the reviewers.
	a) In all cases, please include references when using data from
	other studies. For example, no reference was included for the data on lines 34-36 of page 2 (Introduction).
	b) Page 2; Line 50-52 (Introduction): The authors mentioned a
	high unmet need for family planning, high practice of polygamy, and high prevalence of HIV and STIs in Gambella Regional State
	Tana nigh prevalence of the and offs in Cambella Regional State

- compared to other parts of the country. Given the high number of refugees in this state, it would be interesting if the authors could mention how these rates differ from national rates.
- c) Page 8; Lines 156-158 (SRH characteristics of respondents): The authors mentioned that 86.9% of adolescents have had sexual intercourse before the age of 18. Does that mean the remaining had no experience of sex or they had sex at 19? Please specify.
- d) For dichotomous results, in many cases authors reported results for both yes/no, but this seems redundant to me. It unnecessarily increased the length of tables and text in the Result section. For example, in Table 4, for "Sexual practice", indicating both "Yes" and "No" is not necessary. If only "Yes" is reported, obviously the "No" would be 414-389=25.
- e) Page 10; Line 166: How did the authors define the level of knowledge of modern methods of contraception? Please specify. f) Page 12; Line 187-188:were twice more likely to be pregnant..... This should be odds of pregnancy among adolescent girls living with none of their biological parents were two times more likely to be pregnant compared with adolescents living with both biological parents. Since the risk of pregnancy is high (>10%), the authors could use relative risk instead of odds ratio. g) Page 13; Line 207: I believe the prevalence of pregnancy in
- g) Page 13; Line 207: I believe the prevalence of pregnancy in Gambella region of Ethiopia is not available in reference #29.
- h) Discussion: In many cases, the authors repeated results in the discussion section. Please avoid repeating the results in the discussion.
- i) References: Correct references were not used for some of the references, e.g., reference #5, 27, 29, 30, 34, 35, 36. Use the same style for all references.
- j) Figure 2: The bar chart for reporting the number of pregnancies is redundant. I can be easily mentioned in the text of the Result section in a simple sentence.

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Dr. Frederick Makumbi, Makerere University

First of all, we would like to say thank you for your priceless comments and questions. This could help improve the quality of this manuscript. Here, we reacted to all of your concerns, questions, and comments point by point as follows. We have also shown where these changes were made in the main document by highlighting them in yellow. We hope you get it clear.

Comment #1

1) Sampling for the 414 participants needs to be fully describes. It seems you had multiple steps; household, and then adolescent. But this was not clearly done. For example, you needed 421 adolescents, from 4100 from the camp, but you sampling interval was 9, and you mention that this was for household! which does not seem to be the case.

Authors Response: Thank you very much. It is revised as per your comment in page 5 line 101-106 **Comment #2**

2) Your tables need to be more clearly reformatted; the figures wrap around and one cannot fully read the content of some cells, e.g. Table 5

Authors Response: Thank you much. Changes are made to table 4 and 5. These tables are reformatted. We have also exchanged the position of table 4 and 5. Hence table 4 is renamed as table 5 and vice versa.

Comment #3

3) Your age categorization of 10-16, 17-19 does not appear to be standard or justified Authors Response:

Thank you so much for your concern. First, we classified the adolescent age/stage based on WHO recommendations (early adolescence 10-13years, middle adolescence 14 -16 years and late adolescence 17 to 19). The descriptive part was discussed based on this classification. But when came to the regression analysis, we transformed/recoded in it to two categories to overcome model fitness problem for this particular variable.

Comment #4

4) Your first limitation does not indicate the context being a limitation. How does this limitation affect your study?

Authors Response: Sure! Thank you. We have revised this part based on your comment. The new version of this part is moved to page 2 line 33-40.

Reviewer: 2

Dr. R Paul, University of New South Wales

Dear Dr. R Paul, We'd like to begin by thanking you for your insightful questions and comments. We are delighted to receive these invaluable comments from you because we believe they will improve the manuscript's quality. We addressed each of your concerns, questions, and comments in detail below. In the main document, we've also highlighted in yellow where these changes were made. Thank you!

Comments:

This is a well-designed study to estimate the prevalence of adolescent pregnancy in a refugee camp in Ethiopia. Most of the risk factors are obvious, however, this study reconfirmed the known risk factors in a different study setting.

Authors Response: Thank you very much!

Comment (Main) #1

My main comment is how the prevalence of adolescent pregnancy in this study differs from the national rates in Ethiopia. This would help decision makers/readers to understand the situations in the refugee camp and take necessary action. I have a few more minor comments for the reviewers. Authors Response: Definitely! Thank you very much. We have made changes to this part based on your suggestions. Page 2 line 60-65

<u>Comment</u> –a) In all cases, please include references when using data from other studies. For example, no reference was included for the data on lines 34-36 of page 2 (Introduction). Authors Response: Thank you, sir! Based on your comment, references are given to this data (page 2 line 42-44 in the newly revised document).

<u>Comment</u>-b) Page 2; Line 50-52 (Introduction): The authors mentioned a high unmet need for family planning, high practice of polygamy, and high prevalence of HIV and STIs in Gambella Regional State compared to other parts of the country. Given the high number of refugees in this state, it would be interesting if the authors could mention how these rates differ from national rates.

Authors Response: Sir, thank you very much! This comment is of paramount importance for this paper. We have given additional explanation on how these rates differ from national one on page 3 line 58-63.

<u>Comment</u> c) Page 8; Lines 156-158 (SRH characteristics of respondents): The authors mentioned that 86.9% of adolescents have had sexual intercourse before the age of 18. Does that mean the remaining had no experience of sex or they had sex at 19? Please specify.

Authors Response: Sure! Thank you for your concern. This very important point that should be clear. We attempted to determine the percentage of adolescent girls who begin sexual intercourse before the recommended age (18 years). As a result, we did not address the adolescents' sexual experiences after the age of 18 because, normally, resuming sexual activity after the age of 18 is considered to be acceptable as long as the necessary standard precautions are taken, such as using contraception, avoiding casual sex, refraining from having multiple sexual partners, and so on. Rather, we went on to determine the adolescent's knowledge and practice regarding contraceptive use and other related concepts.

<u>Comment</u> d) For dichotomous results, in many cases authors reported results for both yes/no, but this seems redundant to me. It unnecessarily increased the length of tables and text in the Result section. For example, in Table 4, for "Sexual practice", indicating both "Yes" and "No" is not necessary. If only "Yes" is reported, obviously the "No" would be 414-389=25.

Authors Response: Welcomed! Thank you for your suggestion. We have made corrections based on your suggestions. Additionally, we have exchanged the positions of "Respondents Knowledge about contraceptive methods among" and "SRH characteristics (behaviors) of respondents" and "there by the subsequent tables. Hence, this table is labeled as "table 4" in the revised version of the manuscript. At the same time, the previous table 4 becomes "table 5"

<u>Comment</u> e) Page 10; Line 166: How did the authors define the level of knowledge of modern methods of contraception? Please specify.

Authors Response: Thank you for your insightful questions. Your suggestions have been accepted and detailed explanations of how knowledge and other important concepts are defined (measured) are provided on page 6, lines 124-137, under the sub-topic "Operational definitions"

Comment f) Page 12; Line 187-188: were twice more likely to be pregnant.... This should be odds of pregnancy among adolescent girls living with none of their biological parents were two times more likely to be pregnant compared with adolescents living with both biological parents. Authors Response: Thank you very much. your suggestions are accepted and correction is made accordingly.

Since the risk of pregnancy is high (>10%), the authors could use relative risk instead of odds ratio. Authors Response: Thank you so much. Your concern is right. But, according to our understanding, we don't have repeated measurements, since this this is a onetime cross sectional study. In other word, we didn't follow these study populations for some period of time to observe the incidence of adolescent pregnancy. Therefore, we couldn't use Relative Risk for this study. Thank you.

<u>Comment</u> g) Page 13; Line 207: I believe the prevalence of pregnancy in Gambella region of Ethiopia is not available in reference #29.

Authors Response: I appreciate the correction. An appropriate reference is used in its place. Additionally, the sequence of references has been changed because we added some other references. For instance, in the updated document, reference #29 is now reference #36. (Line 455, page 21)

<u>Comment</u> h) Discussion: In many cases, the authors repeated results in the discussion section. Please avoid repeating the results in the discussion.

Authors Response: Thank you much! Your comment is reasonable and accepted. Based on your suggestion, all results re-presented in the discussion part are removed.

<u>Comment</u> i) References: Correct references were not used for some of the references, e.g., reference #5, 27, 29, 30, 34, 35, 36. Use the same style for all references. Authors Response: Thank you again sir, for this finding. This is also revised as per your comment.

As we tried to mention above there is reshuffling on the order of the references since we added more references. Accordingly, the previous reference #5, 27,29,30,34,35,36, become #6,42,36,37,27,40, 43 respectively.

<u>Comment</u> j) Figure 2: The bar chart for reporting the number of pregnancies is redundant. I can be easily mentioned in the text of the Result section in a simple sentence.

Authors Response: Sure, thank you. The figure is removed. Page 13 line 222-224

THANK YOU VERY MUCH ALL!

(Abdi Geda, on the behalf of all authors)