

# Review of: "Sero-prevalence of Viral Hepatitis B and C infection and associated factors among Pregnant Women in Southeast Ethiopia: Community-based crossectional study"

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Potential competing interests: No potential competing interests to declare.

## Review Report

The manuscript submitted by Mohammed et al, titled: "Sero-prevalence of Viral Hepatitis B and C infection and associated factors among Pregnant Women in Southeast Ethiopia: Community-based crossectional study" has public health relevance. Here are some suggestions that would help to improve the manuscript:

### Title

(1) The current title of the manuscript has typographical errors that should be corrected. Instead of the current title, I suggest it should rather read:

Sero-prevalence of Viral Hepatitis B and C infection and associated factors among Pregnant Women in Southeast Ethiopia: A Community-based cross-sectional study.

(2) The spelling for the word: "Sero-prevalence" should be consistent throughout the manuscript. Do not interchange with seroprevalence.

### Abstract

#### Objective:

(3) The spelling of the word: "Seroprevalence" should be consistent throughout the manuscript. Do not interchange with sero-prevalence.

#### Methods:

(4) The methods section of the abstract has typographical errors that should be corrected. For instance, on line 3 of the abstract, the authours wrote "*A community-based cross-sectional study was conducted among pregnant women. from March to May 2022*". The punctuation error should be correct to improve clarity.

(5) Line 4-5: the authors state that "*Data were collected using a pretested interviewer-administered questionnaire, .....*". However, questionnaire and interview are two different data collection tools. Therefore, the authors should be precise in

their wording.

(6) The authors should indicate whether sampling method involved randomization.

(7) Line 5 and 15: *HBsAgn* should be correctly written as HBsAg, which is the internationally accepted abbreviation.

#### Results:

(8) Line 12: The authors should correct the typographical errors. If possible, the authors could seek the help of native English speakers for assistance.

(9) Line 12-16: The authors should rearrange the risk factors in the order of decreasing magnitude.

(10) Line 11-16: With the exception of “...*history of blood transfusion*...” Whose p-value was stated as 0.045, the authors failed to indicate the p-values of the other risk factors to justify the statistical significance. Therefore, the authors should state the p-values of the significant findings of the study.

#### **Introduction**

(11) Page 3, line 20: The authors stated that “...*by integrating the B vaccine into the existing EPI*...”. They should write abbreviations in full the time followed by the abbreviation.

(12) Page 3, line 23-25: The authors stated that: “*In particular, routine screening of pregnant women for viral hepatitis interrupted infection in many public health facilities due to a lack of diagnostic equipment, which was due to financial constraints.*” This sentence should be reviewed as it lacks clarity.

#### **Methods and Materials**

(13) On page 4, line 10, the authors mentioned using “.....*a single population proportion formula for sample size calculation*.....”. The authors should state the “single proportion formula” and define the variables in it.

(14) The authors should justify the use of the 50% proportion for calculating the sample size, as stated on page 4, line 11: “.....*proportion of 50%*.....”.

(15) The authors should correct all punctuation errors in the manuscript; the authors constructed sentences without the period sign. For instance, page 4, lines 21-26, and page 5, lines 1-3.

(16) Also, the section with the heading “Variables and Measurements” should be rewritten to improve clarity.

(17) The authors should use consistent format for all in-text references. They should correct the reference: “....(1)” on.

(18) Page 4, line 13: the authors stated that they used “....*interviewer-administered questionnaire*...” and on line 15, they claim to have used a “....*face-to-face interview*.....”. However, interview and questionnaire administration are two different data collection methods that employ different data collection tools (interview guide and questionnaire, respectively). Therefore, the authors should be precise in their wording.

(19) Page 5, line 19: the authors stated: “....Excellent quality According to the instructions of the manufacturer Bio Panda, a one-step.....” The authors should proofread the manuscript and correct the errors to improve clarity.

(20) Also, the authors should provide the country of origin for the test devices used.

(21) Page 5, line 23: The authors stated: “....*The presence of a red band indicates a positive result, while its absence indicates a negative result....*”. There is a flaw in the interpretation of the test results, which should be corrected; the test should be interpreted with reference to both control and test bands. Also, to avoid unintentionally plagiarising the interpretation of the test results, I would like to suggest this reference article to the authors:

<https://doi.org/10.1080/15321819.2023.2168555>.

(22) Page 5, line 31: The authors should state the reference number/ethical approval number associated with the ethics certificate issued by the “....*Madda Walabu University Research and Development Directorate....*”.

(23) Page 5: Also, the authors should explain the use of  $<0.25$  p-value for selecting candidates for “...multivariable logistic regression analysis”.

(24) Page 6: Under the heading: “Data Processing and Analysis”, the authors should mention the variables to which the individual statistical analytic tools were applied.

## Results

(25) Page 8: The authors should avoid repetitions. For instance, they stated that “.....*Binary logistic regression was used to identify factors associated with the occurrence of the Hepatitis B virus among pregnant women. Accordingly, variables with a P value $< 0.25$  in binary logistic regression were declared as a candidate for multivariable logistic regression. From multivariable logistic regression, an adjusted odds ratio with 95% confidence intervals was computed. Those variables with p-value  $<0.05$  were declared as a factor significantly associated with the sero status of hepatitis B. According to bivariate logistic regression analysis, six variables were found to be related to HBV infection at p-value  $<0.25$  and selected as the candidate for multivariable logistic regression analysis .....*” This is a repetition of what has already been captured in the methods on page 6, under the heading “Methods and materials”, under subheading “Data Processing and Analysis”. This section is not results and should be removed.

## Discussion

(26) Page 13, line 7; page 14, line 1; and page 15, line 1: “HBsAgn” should be correctly written as HBsAg, which is the internationally accepted abbreviation.

The authors should provide a limitations section before the conclusion paragraph.

(27) Page 13, line 21: The authors stated that: “....*differences in the habit of using the intravenous drug....*”. They should explain how intravenous drug usage contributes to hepatitis C infectivity rate, as the current statement is ambiguous, and lacks clarity.

(28) Page 13, line 26: The authors stated that: "The prevalence of co-infection in the present study..." Co-infection of what? The authors should be precise.

## Conclusion

(29) Page 16, line 8-10: The authors made a recommendation remarks as follows: "...*Therefore, there is a need to institute public health measures to reduce viral hepatitis transmission, including avoiding socio-cultural malpractice and creating awareness in the community about transmission and prevention methods, in addition to ensuring proper implementation of universal precautions at the community level.....*". They should explain which socio-cultural practices could help minimize the spread of hepatitis. Also, what "universal practices" could help curb this menace of hepatitis in our communities?

## References

(30) Include URLs for references 3-5.

## Additional Comments

The manuscript by Mohammed et al, can be improved. There are several grammatical errors that need attention. I suggest major revisions before it can be published.