OPEN PEER REVIEW

Open Peer Review (OPR)

As a new feature for progressing towards transparency, we decided to open a new window for all of our editors as well as authors titled "**Open Peer Review**". We hope by this new facility, our reviewers will be more motivated and authors will be more satisfied with the review process. We believe that publishing our peer review reports could make a transparent and clear environment for all our efforts within a journal, but not all reviewers tend to publish their comments.

What is "Open Peer Review" process?

An "Open Peer Review" process is making the details of all review process (including reviewers, associate editors, and EICs comments) as "Public" as it is agreed by EIC, Authors, and reviewers.

Advantages of "Open Peer Review" process

- More transparency, constructiveness and tactful comments of the peer review process: leads to an increase in the quality of reviews
- More motivations for all involved roles in the review process
- Authors' satisfactions from the review process: Increases honesty between authors and reviewers
- Education of both authors and new students
- Prevents reviewers from following their individual agendas and leading to the detection of reviewers' conflicts of interests

You can find out more at:
https://brieflands.com/briefland/knowledgebase/category/tree.html#opr.html

Hepatitis Monthly
Article DOI: https://doi.org/10.5812/hepatmon-126696
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Peer Review Report for "Seroprevalence of Hepatitis B Virus and Hepatitis C Virus Infections Among People with Severe Mental Illness in Tehran, Iran"

Author(s): Mousa Imani, Heidar Sharafi, Akram Sadeh, Rezvan Kakavand-Ghalehnoei, Seyed Moayed Alavian, Akbar Fotouhi

Review Timeline:

Submit Date: 27 Apr 2022
Revised Date: 20 Sep 2022
Accepted Date: 1 Oct 2022

Revision (0)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | Revision (0)

3 May 2022

Review for Hepat Mon ID 126696: “Seroprevalence of Hepatitis B and C among People with Severe Mental Illness in Tehran, Iran”

In this manuscript, the authors analyzed the seroprevalence of markers for hepatitis B and C in 257 hospitalized patients with mental illness in two hospitals in Tehran, the capital of Iran. The authors observed a relatively mild prevalence by comparison with other places in Asia, Africa, or even Europe. Age was a risk factor for anti-HBc seroprevalence while tattooing was a risk factor for both infections.

It is an interesting paper that investigates the health status of a commonly neglected population.

Nevertheless, there are different shortcomings in the way results have been presented. The principal flaw concerns the sampling defined as “random”. The reader would be reassured if a histogram describing the sampled population and the total population in the two institutions. This figure would have the effect to increase the confidence of the reader and give the possibility to the authors to normalize the prevalence of markers with respect to the true populations of patients with mental illness. It is especially important for anti-HBc

whose prevalence is linked to older age and can, thus, generate distortion if “random” sampling is biased. Such figures could be easily found by the direction of the participant hospitals.
Another problem came from the distribution of cases between urban and rural. The rural population of Iran is, in 2020, 24% while it is in the study 5.1%. Hence, the 8 anti-HCV(+) patients are urban. The paper does not claim to reflect the situation in the whole of Iran. But, at least, it could be discussed in one sentence.
What was the mean duration of total hospitalization for these patients? Their removal from society for a long time might explain why they are so minimally exposed to hepatitis viruses.

Minor issues:
Introduction: the routes of hepatitis viruses transmission are somewhat approximate. Unprotected sexual contact is not a favorite route for HCV transmission, and CDC does not recommend wearing condoms for monogamous persons. Likewise, breastfeeding is generally not considered a risk for HBV or HCV transmission.

M&Ms
“Dangerous mental illness” (at least. 3-times) is a confusing expression: “serious mental illness” is better
“The satisfaction of the participant”: please mention instead the “verbal consent” better than the “satisfaction”.
Knowledge section: please indicate what it is “awareness”?
What was the outcome of the analysis by the five experts? Content validity rate and index quantifications?
What was the man Cronbach’s Alpha index? Above 0.70?

REFEREE: Reviewer | **Revision** (0) 8 May 2022

The reviewed manuscript “Seroprevalence of Hepatitis B and C among people with severe mental illness in Teheran, Iran” presents the results of a cross-sectional study performed in two hospitals for 4 months. This paper revealed some interesting data on the prevalence of liver disease, which still represents a public health issue and risk factors in a particular population compared to the general population.
The paper is generally well written, but still, some improvements need to be made before publishing it.
The title explains well the subject of the paper. The abstract must be lightly improved: the aim should also include the analysis of the risk factors; the patients were not randomly recruited because, in the paper, the authors mentioned that all patients seen during the study period were included – this issue should be clarified; to keep the number of words limited probably it would be better to use “serologic markers for hepatitis B and C were analyzed using an immunoassay” instead of listing all markers.
In the manuscript, the authors included PTSD as a separate group (in the aim), but later, there is no mention of those patients, only schizophrenia, bipolar disorder, and depression being mentioned. This aspect should be clarified.
Regarding the SPSS software, the authors should have mentioned the producing company

and the country in the Methods section.
Some data from the Conclusions should be developed more in the final part of the Discussion: those regarding preventive measures and vaccination.
The manuscript should be verified for editing errors: lines 48, 67, 76, 110 (use long form).
There is no need to list twice the serological markers in 2 sentences, in lines 81-82.
Regarding the references, only four titles are more recent than 5 years. It will probably be better to add more recent studies to compare the results of this research with the latest developments in the literature regarding HCV and HBV infections.

REFEREE: Associate Editor | **Revision (0)** 17 May 2022

The manuscript entitled “Seroprevalence of Hepatitis B and C among People with Severe Mental Illness in Tehran, Iran” was reviewed by peer-review team. The authors reported the prevalence of serological markers for hepatitis B and C in a neglected population—hospitalized patients with serious mental illness— in Tehran, Iran. The findings can be of interest but there are some important concerns pointed by the reviewers. I added few more minor and major comments:

ABSTRACT
1. Lines 19-21: the values of 95% CIs for ORs, are different from those values in the Tables 4–5.
2. Lines 19-21: the authors should specify that the findings on HBV and HCV determinant are based on a regression analysis (In regression analysis, tattooing and age were associated with …)

KEYWORDS
3. Please replace the ‘severe mental illness’ with ‘mental disorders’.

INTRODUCTION
4. Please cite to the more recent references for the global and national prevalence rates of HBV and HCV infections. For examples: doi: 10.1016/j.puhe.2021.11.020, (2022), doi:10.1186/s12879-020-05405-9, (2020), doi: 10.5812/hepatmon.35577, (2017), www.who.int/news-room/fact-sheets/detail/hepatitis-c, (2021), https://www.who.int/publications/i/item/9789241565455, (2017)
5. Lines 39-40: the global data is preferable than local (USA) data.
6. Lines 41–47: there is no need to define twice the severe/ dangerous mental illnesses in consecutive sentences.
7. Line 48: the prevalence rate cited from ref. 8, is related to only schizophrenia not to all serious mental disorders.

PATIENTS AND METHODS
8. Line 70: please give details about random sampling. How many patients with severe mental illness hospitalized in two hospitals at the time of study? Did you access to a sampling frame?
9. Lines 85–86: please give more details about the questions asked to assess participants’ knowledge on hepatitis. How many questions were used to assess HBV and HCV

awareness? How did you score each point and calculate total scores?
10. Line 97: why didn't you use chi-square test to univariate analysis?
11. You should define clearly the study variables such as type of residence, employment status, surgical procedure, and so on. For example, let readers to know if they assessed based on the participants' status at the time of study or by considering a defined period. Regarding 'condom use', did the responders say simply 'yes' or 'no' or were allowed to choose an adverb of frequency (e.g. always, usually, sometimes, etc).

RESULTS
12. Please give the numbers along with the percentages throughout the Results section.
13. Line 106: the mean age is better to express with 2 decimal digits in the main text (35.77 years) like Abstract part and Table 1.
14. In line 110, you said, "30.7% had received complete HBV vaccination" and in a few lines below it reported the overall prevalence of HBsAb as 18.7%. How do you explain it?
15. Lines 122–132: please refer to only variables that have a significant association with HBV or HCV infection and give the relevant p-values.
16. Lines 134–143: in addition to the ORs, the p-values should also be mentioned.

DISCUSSION
17. The authors declared that the low rate of hepatitis B in the studied population could be due to HBV vaccination (line 163). On the other hand, less than one-third of the responders confirmed complete (3-doses) HBV immunization (line 110) and only 11% showed serologic evidence of active immunity, i.e. isolated HBsAb (line 181). Could you discuss about other possible reasons of this condition?
18. Line 166: please check the first-author's name for ref. 16. Dorothy or Kramvis (line 290)?
19. You shouldn't present the study findings for the first time in Discussion part. For instance, "11.4% of people are only positive for HBsAb …" (line 181), or "most people reported getting tattoos from their friends." (line 198).
20. Line 184: what percentage of studied population were susceptible to HBV infection? 80.3 % or 81.3%?
21. Line 186: you cited to a study by Mohammadnejad et al. in the text but it was missed from the references list.
22. Line 191: please change 'Clarissa Bauer' to 'Bauer-Staeb'.
23. Lines 199–200: what is your evidence for your assertion about a shift of HBV spread through blood products to sexual transmission in Iran?
24. Lines 198–201: it is so difficult to accept your assumption that the transmission through blood is one of the most important routes of HBV transmission just due to high rate of shared tattooing among your population.
25. Lines 219–223: too long sentence that needs rewording or splitting to 2-3 sentences.

TABLES
27. I couldn't find any reference to 'Table 1' in the text.
28. In Table 2 footnote, please add explanation for 'Others'.
29. In Table 3, please change '>46' to '> 45' for age groups.
30. In Table 4, please write exact p-value instead of '<0.01'. we usually use '<' sign for

values less than 0.001 or 0.0001.
31. In Tables 4 & 5, please write exact p-values instead of 'NS'.
32. In Tables 4 & 5 footnotes, please add the name of statistical test used for univariate analysis.
33. There are different classification for variable of 'Education' in the Tables 1, 4 & 5.
34. You include 'Ethnicity' in the Tables 4 & 5. Could you add a row for this variable in the Tables 1 & 3, too?
35. You also include 'Type of disease', 'Awareness', and 'Alcohol consumption' in the Tables 4 & 5. Please add a row for these variables in the Table 3, too.
36. You include 'Living place' and 'Employment' in the Tables 3 & 4. Why didn't you include it in the Table 5?
37. Please use a same title for occupation status in the tables (Job or Employment).
38. I strongly recommend merging Tables 2 & 3 and adding p-values estimated in univariate analysis in the merged table. After that, It would be also better to merge Tables 4 & 5.
SCIENTIFIC WRITING
39. The manuscript needs a rigorous English editing for scientific writing errors. For examples:
- The word of 'grade' should be removed (line 48).
- 'shows' should be changed to 'show' (line 53).
- 'has' should be changed to 'have' (line 55).
- 'satisfaction' is better to be replaced with 'verbal agreement' (line 55).
- 'tools' is better to be replaced with 'strategies' (line 57).
- There are some ambiguous sentences, which should be reworded, such as, "It should be noted that capacity to provide consent was not performed due to receiving consent from families." (lines 73–74) or "additional hepatitis C tests could have been a valuable finding for the immediate outbreak of hepatitis C" (lines 217–218).
- 'And' must be changed to 'and' (line 76).
- The phrase of 'patients were satisfied and participated in the study' should be changed to 'patients approved to participate in the study' (line 104).

Seyed Moayed Alavian: EIC | **Revision** (**0**) 17 May 2022

Dear Authors,

Please follow the peer-review comments and submit a revision.

Regards,
EIC

OPEN PEER REVIEW

Revision (1)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Reviewer 1:

- The principal flaw concerns the sampling defined as “random”. The reader would be reassured if a histogram describing the sampled population and the total population in the two institutions. This figure would have the effect to increase the confidence of the reader and give the possibility to the authors to normalize the prevalence of markers with respect to the true populations of patients with mental illness. It is especially important for anti-HBc whose prevalence is linked to older age and can, thus, generate distortion if “random” sampling is biased. Such figures could be easily found by the direction of the participant hospitals.

  Thank you for your valuable comment. Your point about the sampling method is correct. It was a mistake regarding the sampling method and we used a non-random and convenience sampling method. Corrected in the text (Lines No. 66 to 69).

- Another problem came from the distribution of cases between urban and rural. The rural population of Iran is, in 2020, 24% while it is in the study 5.1%. Hence, the 8 anti-HCV(+) patients are urban. The paper does not claim to reflect the situation in the whole of Iran. But, at least, it could be discussed in one sentence.

  Your point is correct. However, this study population was taken from two hospitals and it is not necessarily generalizable to the general population of patients with mental disorders for the following reasons:

  1. The prevalence of mental disorders is different in rural and urban communities.
  2. Samples are taken from a hospital located in Tehran with higher urbanization than in other provinces.
  3. In addition, the rate of referral to medical centers for mental illness in rural and urban patients can be different.

  This limitation has been addressed in the discussion section (Lines No. 214 to 220).

- What was the mean duration of total hospitalization for these patients? Their removal from society for a long time might explain why they are so minimally exposed to hepatitis viruses.

  Unfortunately, the length of hospital stay was not recorded in this study.

- The routes of hepatitis viruses transmission are somewhat approximate. Unprotected sexual contact is not a favorite route for HCV transmission, and CDC does not recommend wearing condoms for monogamous persons. Likewise, breastfeeding is generally not considered a risk for HBV or HCV transmission.

  Thanks for your comment. It is corrected (Lines No 41 to 43).

- “Dangerous mental illness” (at least. 3-times) is a confusing expression: “serious mental illness” is better

  Corrected in the text (Lines 44, 45, 50…).

- "The satisfaction of the participant": please mention instead the "verbal consent" better than the "satisfaction".

  Corrected in the text (Line 71).

- Knowledge section: please indicate what it is "awareness"?What was the outcome of the analysis by the five experts? Content validity rate and index quantifications? What was the man Cronbach's Alpha index? Above 0.70?

  Additional explanations were added to the text (Lines No. 80 to 92).

Reviewer 2:

- The aim should also include the analysis of the risk factors;

  Thanks. It was removed to keep the abstract short.

- The patients were not randomly recruited because, in the paper, the authors mentioned that all patients seen during the study period were included – this issue should be clarified;

  Yes, it is correct. We corrected it in the text (Lines No. 66 to 69).

- In the manuscript, the authors included PTSD as a separate group (in the aim), but later, there is no mention of those patients, only schizophrenia, bipolar disorder, and depression being mentioned.

  Thanks, no patient with PTSD was recruited during the study. A sentence on this topic was added to the results section (Line 108).

- Regarding the SPSS software, the authors should have mentioned the producing company and the country in the Methods section.

  Thanks. Corrected in the text (Lines 95).

- The manuscript should be verified for editing errors: lines 48, 67, 76, 110 (use long form).

  Thanks, the text was corrected.

- There is no need to list twice the serological markers in 2 sentences, in lines 81-82.

  Thanks. Corrected in the text.

- Regarding the references, only four titles are more recent than 5 years. It will probably be better to add more recent studies to compare the results of this research with the latest developments in the literature regarding HCV and HBV infections

  Thankful. The references are updated.

……

Associate Editor 1:

1. Lines 19-21: the values of 95% CIs for ORs, are different from those values in the Tables 4–5.

Corrected in the text.

2. Lines 19-21: the authors should specify that the findings on HBV and HCV determinant are based on a regression analysis (In regression analysis, tattooing and age were associated with …)

A sentence was added (Line 19).

3. Please replace the ‘severe mental illness’ with ‘mental disorders’.

Corrected in the text (Lines 44, 45, 50…).

4. Please cite to the more recent references for the global and national prevalence rates of HBV and HCV infections.

Corrected in the text.

6. Lines 41–47: there is no need to define twice the severe/ dangerous mental illnesses in consecutive sentences.

Corrected in the text.

7. Line 48: the prevalence rate cited from ref. 8, is related to only schizophrenia not to all serious mental disorders.

Corrected in the text.

8. Line 70: please give details about random sampling. How many patients with severe mental illness hospitalized in two hospitals at the time of study? Did you access to a sampling frame?

A necessary description was added (Lines No. 66 to 69).

9. Lines 85–86: please give more details about the questions asked to assess participants’ knowledge on hepatitis. How many questions were used to assess HBV and HCV awareness? How did you score each point and calculate total scores?

Additional explanations were added to the text (Lines No. 80 to 92).

10. Line 97: why didn't you use chi-square test to univariate analysis?

The advantage of using logistic regression is that it does not require assumptions.

11. You should define clearly the study variables such as type of residence, employment status, surgical procedure, and so on. For example, let readers to know if they assessed based on the participants' status at the time of study or by considering a defined period. Regarding 'condom use', did the responders say simply 'yes' or 'no' or were allowed to choose an adverb of frequency (e.g. always, usually, sometimes, etc)

Additional explanations were added to the text (Lines No. 80 to 92).

12. Please give the numbers along with the percentages throughout the Results section.

To avoid repeating the data presented in the Tables, it was not mentioned in the text.

13. Line 106: the mean age is better to express with 2 decimal digits in the main text (35.77 years) like Abstract part and Table 1.

Corrected in the text.

16. Lines 134–143: in addition to the ORs, the p-values should also be mentioned.

To avoid repeating the data presented in the Tables, it was not mentioned in the text.

17. The authors declared that the low rate of hepatitis B in the studied population could be due to HBV vaccination (line 163). On the other hand, less than one-third of the responders confirmed complete (3-doses) HBV immunization (line 110) and only 11% showed serologic evidence of active immunity, i.e. isolated HBsAb (line 181). Could you discuss about other possible reasons of this condition?

As described in lines 182 to 187 - We had no other justification.

18. Line 166: please check the first-author's name for ref. 16. Dorothy or Kramvis (line 290)?

Corrected in the text.

19. You shouldn't present the study findings for the first time in Discussion part. For instance, "11.4% of people are only positive for HBsAb …" (line 181), or "most people reported getting tattoos from their friends." (line 198)

This data is not new. Only HBsAb positive cases are less than HBcAb positive cases. True about the tattooing, a sentence was added to the results (line 183).

20. Line 184: what percentage of studied population were susceptible to HBV infection? 80.3 % or 81.3%?

81.3 - Corrected in the text.

21. Line 186: you cited to a study by Mohammadnejad et al. in the text but it was missed from the references list.

Reference 19 is added.

22. Line 191: please change ‘Clarissa Bauer’ to ‘Bauer-Staeb’.

Corrected in the text (line No. 193).

23. Lines 199–200: what is your evidence for your assertion about a shift of HBV spread through blood products to sexual transmission in Iran?

Was corrected (The sentence was deleted)

24. Lines 198–201: it is so difficult to accept your assumption that the transmission through blood is one of the most important routes of HBV transmission just due to high rate of shared tattooing among your population.

However, tattoos are among the important risk factors that have been confirmed in this study.

25. Lines 219–223: too long sentence that needs rewording or splitting to 2-3 sentences.

Thanks, edited.

27. I couldn’t find any reference to ‘Table 1’ in the text.

Thanks, added in the text (line 116).

28. In Table 2 footnote, please add explanation for ‘Others’.

Other hospitalized patients regardless of the disease in this study. Unfortunately, the type of miscellaneous diseases has not been recorded.

29. In Table 3, please change ‘>46’ to ‘> 45’ for age groups.

Thanks, edited.

32. In Tables 4 & 5 footnotes, please add the name of statistical test used for univariate analysis.

Thanks, added.

33. There are different classification for variable of ‘Education’ in the Tables 1, 4 & 5.

In regression analysis, due to the small number of samples in the subgroup analysis, the subgroups were merged and entered into the regression model as a dichotomous variable.

34. You include ‘Ethnicity’ in the Tables 4 & 5. Could you add a row for this variable in the Tables 1 & 3, too?

Added.

35. You also include ‘Type of disease’, ‘Awareness’, and ‘Alcohol consumption’ in the Tables 4 & 5. Please add a row for these variables in the Table 3, too.

The type of disease is presented in a separate table (Table 2). Yes, it is completely correct, but unfortunately, I do not have access to the data to add to table 3.

36. You include ‘Living place’ and ‘Employment’ in the Tables 3 & 4. Why didn’t you include it in the Table 5?

In the regression model, these two variables gave an error.

37. Please use a same title for occupation status in the tables (Job or Employment).

Thanks, edited.

38. I strongly recommend merging Tables 2 & 3 and adding p-values estimated in univariate analysis in the merged table. After that, It would be also better to merge Tables 4 & 5.

Many thanks for the very important and key points, while observing some points related to the tables, the authors prefer that the tables be presented independently.

39. The manuscript needs a rigorous English editing for scientific writing errors.

All writing notes were edited and highlighted in the text.

OPEN PEER REVIEW

Revision (1)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Associate Editor | **Revision (1)** 20 Aug 2022

Seroprevalence of Hepatitis B and C among People with Severe Mental Illness in Tehran, Iran (ID: 126696)

The authors made most of the requested changes/ corrections; however, there are still some important points to be revised. Please reply to the following comments point by point.

1. Please revise the sampling method (non-random and convenience) in Abstract part, too.
2. Please replace the 'severe mental illness' with 'mental disorders' in the KEYWORDS.
3. There are missing words in the following sentence: "Evidence also health needs, including screening and prevention of STIs and blood-borne viruses, have been ignored in this population". (Line 53-55)
4. Need to define clearly the study variables such as 'type of residence', 'employment status', 'surgical procedure', and so on. Did you assess the variables based on the participants' status at the time of study or by considering a defined period?
5. Regarding 'condom use', did the responders say simply 'yes' or 'no' or were allowed to choose an adverb of frequency (e.g. always, usually, sometimes, etc).
6. Please cite to the SPSS software as follow: SPSS Statistics for Windows, version 23 (IBM Corp., Armonk, N.Y., USA). For more information, please see the IBM website (https://www.ibm.com/support/pages/how-cite-ibm-spss-statistics-or-earlier-versions-spss).
7. Need to give the numbers along with the percentages throughout the 'Results' section.
8. Please delete the word of 'either' in line 110: "The majority (40.9%) of participants either did not remember their HBV vaccination history and 30.7% reported complete HBV vaccination.'
9. You said that there were 16 questions about participants' knowledge about HBV (10 questions) and HCV (6 questions) and 2 points were considered for each correct answer, 1 point for each unanswered question, and 0 points for each false answer (lines 80–92). This means that the maximum scores of HBV and HCV knowledge would be calculated as 20 and 12, respectively. In Result section (lines 115-116), however, you reported the means out of 60 both for hepatitis B and hepatitis C awareness scores.
10. In part of 3.3 (Determinants of HBV and HCV prevalence …), need to point out the p-values in addition to the ORs.
11. The authors declared that the low rate of hepatitis B in the studied population could be due to HBV vaccination (lines 164-165). This is not a good reason! Only 30.7% of participants reported a complete HBV vaccination (line 110). Beside, you said, "11.4% of people are only positive for HBsAb which means this 11.4% of the 257 people are vaccinated and immune against HBV transmission" (lines 183-184).

12. You should to remove this sentence: ‘Additionally, most people reported getting tattoos from their friends.” (line 201). There is not more discussion about this subject.
13. Please refer to all study findings in ‘Result’ section. For instance, the rate of isolated HBsAb seropositivity (line 183) should be given in this part.
14. You declared that your findings cannot be generalized to Iranian population with mental illness. Please add the potential reasons such as those you referred to in ‘Response to reviewers’ file.
15. To refer to ‘Other’, please explain that the types of other diseases have not been recorded (footnote of Table 2).
16. What does mean ‘Primary education’ in Tables 4 & 5? There is not this education category in Tables 1 & 3!
17. Need to add data about following variables in the Table 3: ‘Ethnicity’, ‘Type of disease’, ‘Awareness’, and ‘Alcohol consumption’.
18. You said that including variables such as ‘Living place’ and ‘Employment’ in regression analysis, “gave an error”. Why did not you consultant with a biostatistics specialist?
19. Again, I strongly recommend merging Tables 2 & 3 as well as Tables 4 & 5.
20. Please correct the following references:
Polaris Observatory Collaborators. Global prevalence, treatment, and prevention of hepatitis B virus infection in 2016: a modelling study. Lancet Gastroenterol Hepatol. 2018 Jun;3(6):383-403.
Mohamadnezhad S, amirmozafari N, asmar M, nasrolahi M. Assessment of hepatitis B viruses serologic markers in special patients (thalassemia and dialysis) of Mazandaran province. RJMS. 2018; 25 (7) :62-69.

Seyed Moayed Alavian: EIC | **Revision (1)** 20 Aug 2022

Dear Authors,

Please follow the peer-review comments and submit a revision.

Regards,
EIC

OPEN PEER REVIEW

Revision (2)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

1. Please revise the sampling method (non-random and convenience) in Abstract part, too.

Response: Corrected (Lines 10-12).

2. Please replace the ‘severe mental illness’ with ‘mental disorders’ in the KEYWORDS.

Response: Corrected (Line 28).

3. There are missing words in the following sentence: “Evidence also health needs, including screening and prevention of STIs and blood-borne viruses, have been ignored in this population”. (Line 53-55)

Response: Corrected (Lines 53-56).

4. Need to define clearly the study variables such as ‘type of residence’, ‘employment status’, ‘surgical procedure’, and so on. Did you assess the variables based on the participants’ status at the time of study or by considering a defined period?

Response: Edited in tables.

5. Regarding ‘condom use’, did the responders say simply ‘yes’ or ‘no’ or were allowed to choose an adverb of frequency (e.g. always, usually, sometimes, etc).

Response: The participant’s response was yes/no.

6. Please cite to the SPSS software as follow: SPSS Statistics for Windows, version 23 (IBM Corp., Armonk, N.Y., USA). For more information, please see the IBM website (https://www.ibm.com/support/pages/how-cite-ibm-spss-statistics-or-earlier-versions-spss).

Response: Corrected.

7. Need to give the numbers along with the percentages throughout the ‘Results’ section.

Response: It was done as much as possible.

8. Please delete the word of ‘either’ in line 110: “The majority (40.9%) of participants either did not remember their HBV vaccination history and 30.7% reported complete HBV vaccination.’

Response: Deleted.

9. You said that there were 16 questions about participants' knowledge about HBV (10 questions) and HCV (6 questions) and 2 points were considered for each correct answer, 1 point for each

unanswered question, and 0 points for each false answer (lines 80–92). This means that the maximum scores of HBV and HCV knowledge would be calculated as 20 and 12, respectively. In Result section (lines 115-116), however, you reported the means out of 60 both for hepatitis B and hepatitis C awareness scores.

Response: Yes, that's right, both measurements were scaled up to 60 to let readers compare the results of HBV and HCV awareness (Lines 93-94).

10. In part of 3.3 (Determinants of HBV and HCV prevalence …), need to point out the p-values in addition to the ORs.

Response: Added.

11. The authors declared that the low rate of hepatitis B in the studied population could be due to HBV vaccination (lines 164-165). This is not a good reason! Only 30.7% of participants reported a complete HBV vaccination (line 110). Beside, you said, “11.4% of people are only positive for HBsAb which means this 11.4% of the 257 people are vaccinated and immune against HBV transmission” (lines 183-184).

Response: Thank you for your comment. Previous studies showed that the HBV vaccination of newborns was effective to prevent transmission of HBV in adulthood (1). A portion of this study participants also received the HBV vaccination at birth (those <28 years old). Our data showed that age was the important determinant of HBcAb seropositivity in our study population. On the other hand, being negative for HBsAb is not a piece of reliable evidence for the absence of previous HBV vaccination and current immunity against HBV (2).

1. Mirrezaie S M, Saber H R, Hajibeigi B, Salekmoghaddam E, Abbasian A, et al. Impact of HBV Vaccination on Prevalence of Hepatitis B Virus Infection Among Volunteer Blood Donors in Tehran-Iran. Shiraz E-Med J. 2014;15(2):e18066. doi: 10.17795/semj18066.
2. Aghasadeghi MR, Banifazl M, Aghakhani A, Eslamifar A, Vahabpour R, Ramezani A. No evidence for occult HBV infection in hepatitis B vaccine non-responders. Iran J Microbiol. 2014 Oct;6(5):350-3. PMID: 25848527; PMCID: PMC4385577.

12. You should to remove this sentence: ‘Additionally, most people reported getting tattoos from their friends.” (line 201). There is not more discussion about this subject.

Response: Deleted.

13. Please refer to all study findings in ‘Result’ section. For instance, the rate of isolated HBsAb seropositivity (line 183) should be given in this part.

Response: This data is not new. Only HBsAb positive cases minus HBcAb cases were positive.

14. You declared that your findings cannot be generalized to Iranian population with mental illness. Please add the potential reasons such as those you referred to in ‘Response to reviewers’ file.

Response: Added (Lines 218 to 221).

15. To refer to ‘Other’, please explain that the types of other diseases have not been recorded (footnote of Table 2).

Response: Unfortunately, mental health illnesses other than schizophrenia, bipolar disorder, depression, and post-traumatic stress disorder were not recorded in the study questionnaire. We edited it in the footnotes of Tables 1 and 2.

16. What does mean ‘Primary education’ in Tables 4 & 5? There is not this education category in Tables 1 & 3!

Response: Thank you for your comment. We edited the category names for education in Tables with more clarifications.

17. Need to add data about following variables in the Table 3: ‘Ethnicity’, ‘Type of disease’, ‘Awareness’, and ‘Alcohol consumption’.

Response: Ethnicity and alcohol consumption were added to Table 3.

18. You said that including variables such as ‘Living place’ and ‘Employment’ in regression analysis, “gave an error”. Why did not you consultant with a biostatistics specialist?

Response: It was consulted, but we still have the same output.

19. Again, I strongly recommend merging Tables 2 & 3 as well as Tables 4 & 5.

Response: Thank you for your suggestion. We respect your recommendation, however, we prefer to keep them as separate tables to increase the readability.

20. Please correct the following references:

Polaris Observatory Collaborators. Global prevalence, treatment, and prevention of hepatitis B virus infection in 2016: a modelling study. Lancet Gastroenterol Hepatol. 2018 Jun;3(6):383-403.

Mohamadnezhad S, amirmozafari N, asmar M, nasrolahi M. Assessment of hepatitis B viruses serologic markers in special patients (thalassemia and dialysis) of Mazandaran province. RJMS.

Response: Corrected

OPEN PEER REVIEW

Revision (2)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

Seyed Moayed Alavian: EIC | **Revision** (2) 20 Sep 2022

Dear Authors,

I am delighted to inform that your manuscript is accepted for publication in Hepatitis Monthly journal.

Regards,
EIC

REFEREE: Associate Editor | **Revision** (2) 1 Oct 2022

The authors made all requested changes/ corrections.