

Peer Review File

Article information: <https://dx.doi.org/10.21037/tp-23-134>

Reviewer A

Major comments

1. Overall, the manuscript is written in clear and professional English, but the structure is not organized well.
2. The manuscript could be improved by providing more relevant literature in the introduction and discussion. For example,

Comment 1: In the first paragraph of the introduction, the author talked about influenza infection, but only the last sentence was related to pregnant women and their infants. I suggest providing additional information, such as the influenza infection rate among pregnant women.

Reply 1: Thanks for your helpful suggestion, we have added the incidence of influenza infection in pregnant women in the introduction.

Changes in the text: Line 62-63.

Comment 2: In the last paragraph of the introduction, it is unclear what the previous studies found.

Reply 2: We have summarized the studies' conclusions and divided them into two parts, meaningful and not meaningful, with the intention of showing that the current article is controversial. The detailed findings are presented in table 1.

Changes in the text: No.

Comment 3: I would like to suggest moving some literature from the discussion to the introduction, such as the second and third paragraphs of the discussion.

Reply 3: The second part of the discussion is a further elaboration of the introduction, in which we hope to give the reader a further insight into the content at hand.

Changes in the text: No.

3. Some classifications were not clear enough. For example,

Comment 4: How was the influenza infection assessed? Moderate level or severe level? Are they all based on medical records?

Reply 4: The assessment of influenza infection is unclear and the vast majority do not provide statistics and descriptions of the severity of the infection. In addition, all clinical data are derived from medical records.

Changes in the text: Line 113.

Comment 5: SARS-CoV-2 is a coronavirus. Flu is caused by infection with influenza viruses. I would like to suggest clarifying this.

Reply 5: Thanks for your carefully reading. We have clarified that in the title.
Changes in the text: Line 2.

Comment 6: Both influenza A and B are seasonal. Please clarify "seasonal influenza" and "influenza A and B" in Table 1.

Reply 6: "Seasonal influenza" is what it was described in the studies, and does not clearly identify the specific type of influenza virus.

Changes in the text: No.

4. In the results section, please describe the key results in addition to referring to the tables. For example,

Comment 7: Line 160, I would like to suggest providing more specific information, such as the number of studies that did not find an association, the number of studies published before 2010, and the number of studies that reported the 2009 pandemic H1N1 influenza.

Reply 7: Thanks for your advice. More detailed information was described in discussion and table 1.

Changes in the text: No.

Comment 8: Line 202, I suggest providing some detailed results about sensitivity analysis.

Reply 8: Sensitivity analysis were conducted by STATA 16.0 software, which could not provide figures or tables to describe the results. Therefore, we can only describe the results of analyses.

Changes in the text: No

Comment 9: In line 250 "This was the first meta-analysis investigating the impact of maternal influenza infection on preterm birth, but there were some limitations." It is confusing how the author determined this is the first meta-analysis because I found some previous studies, such as the two shown below. How this meta-regression analysis is different than others, and what are its strengths?

- Khalil, Asma, et al. "SARS-CoV-2 infection in pregnancy: A systematic review and meta-analysis of clinical features and pregnancy outcomes." *EClinicalMedicine* 25 (2020): 100446.

- Fell, Deshayne B., et al. "Maternal influenza and birth outcomes: systematic review of comparative studies." *BJOG: An International Journal of Obstetrics & Gynaecology* 124.1 (2017): 48-59.

Reply 9: A number of studies focused on the impact of influenza infection on pregnancy outcomes. However, we wish to emphasize that this study focuses on only one adverse outcome, preterm birth.

Changes in the text: No.

Comment 10: In line 221, "As for influenza infection, most of the studies included in this meta-analysis revealed that antenatal influenza was not associated with preterm

birth (15-29)". Could you please explain why the association was found in the meta-analysis?

Reply 10: The meta-analysis conducted a more comprehensive analysis by expanding the sample size, so it is possible that different results were obtained than before.

Changes in the text: No.

Comment 11: Please also consider the following:

1. Line 24, the sentence here is more like an "objective" rather than a "background".
2. Line 41, "95% 95% CI:" please revise it.
3. Line 43, should it be $p>0.1$? Please double-check.
4. Line 135, Could you please double-check the citation for the software? "STATA SE V16.0 (Computer Resource Center)"
5. Line 145, please also add that 20 reports were excluded because no comparisons or critical data were missing.
6. Table 1:
 - Please explain "International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9- CM) diagnosis code 644".
 - Please explain the difference between "37+0 weeks", "37 completed weeks," and "37 weeks."
 - Please add integer commas in the fifth column to keep the format of the numbers consistent with the main text.
 - I would like to suggest adding reference numbers to Table 1.

Reply 11: Thanks for your suggestion. All the suggestions above have been modified in the manuscript and table 1.

Changes in the text: Line 30, 47, 49, 141-142, 151-152 in manuscript. Line 1-4 in table 1.

Comment 12: Figure 2. I want to suggest adding a reference line at $OR=1$.

Reply 12: Thanks for your advice. The green dotted line in the diagram is $OR=1$.

Changes in the text: No.

Reviewer B

This study is a meta-analysis to examine whether influenza infection in pregnant women is associated with the risk of preterm birth. The content is interesting, but I concerned that it is insufficient to understand the disease of influenza.

Comment 13: Why did you include SARS-CoV-2 as one of the types of influenza?

Reply 13: Thanks for your carefully reading. We have clarified that in the title.

Changes in the text: Line 2.

Comment 14: Why did you separately consider seasonal influenza, influenza A, and influenza B?

Reply 14: Seasonal influenza, influenza A, and influenza B were described in the studies, and some studies does not clearly identify the specific type of influenza virus for seasonal influenza.

Changes in the text: No.

Comment 15: Except for pandemic influenza caused by influenza A/H1N1pdm09 virus in 2009 and 2010, the rest of the seasons is seasonal influenza caused by influenza A and B virus. It is necessary to understand the disease concept of influenza and to reconsider the meta-analysis and the contents of paper.

Reply 15: "Seasonal influenza" is what it was described in the studies, and does not clearly identify the specific type of influenza virus.

Changes in the text: No.

Reviewer C

Comment 16: Authors did not mention the vaccination status of the pregnant woman who were infected with influenza and COVID as outcome of pregnancy and complications rates are low in the vaccinated pregnant woman.

Reply 16: Actually, the adverse outcomes of pregnancy and complications rates are lower in the vaccinated pregnant woman than no vaccinated pregnant women. However, this study did not focus on the influence of vaccination.

Changes in the text: No.

Comment 17: Title of the article is "Risk of preterm birth in maternal influenza infection: a meta-analysis" to the influenza infection but then infection in the methodology and the results. I recommend that authors should include COVID-19 infection in the tidal as well.

Reply 17: Thanks for your suggestion. We have added that in the title.

Changes in the text: Line 2.

Comment 18: Vaccination is the most effective intervention to reduce the complication of influenza and COVID, authors should suggest this intervention in the conclusion pot instead of that woman should avoid getting infection.

Reply 18: Thanks for your suggestion. We have added that in the conclusion.

Changes in the text: Line 264.

Reviewer D

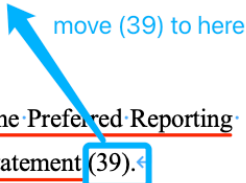
Comment 1: Main text

First, it is suggested to change the article of reference 39. Because your current study has followed the MOOSE reporting guideline.

Suggested article: Stroup DF, Berlin JA, Morton SC, et al., for the Meta-analysis Of Observational Studies in Epidemiology (MOOSE) Group. Meta-analysis of Observational Studies in Epidemiology. A Proposal for Reporting. JAMA. 2000;283(15):2008-2012.

Second, after revise reference 39, please remove the first sentence in the method, and cite reference 39 at the ending sentence of the introduction section.

82 women and the allocation of medical resources. We present the following article in
83 accordance with the MOOSE reporting checklist (available at
84 <https://tp.amegroups.com/article/view/10.21037/tp-23-134/rc>). (39)
85 ←
86 #Methods ← remove the sentence under red line
87 The current meta-analysis was conducted in accordance with the Preferred Reporting
88 Items for Systematic Reviews and Meta-Analyses (PRISMA) statement (39). ←



Reply 1: Thanks for your carefully reading, and we have modified the text and reference as advised.

Changes in the text: Line 81-87, 392-396.

Comment 2: Table 1

a) Please check if the year is correct, it should be the same as the citations in reference list.

Dawood FS	2020	Thailand	Newsome K	2018	USA
(16)			(33)		
Regan AK	2021	USA	Stephansson O	2021	Sweden
(36)			(38)		

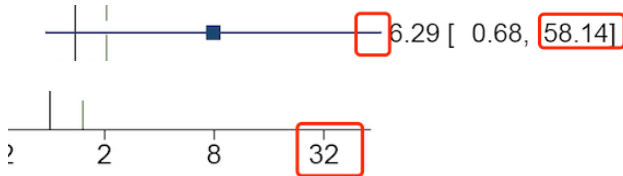
b) Please check if the author's name matches with the citation, it should be the same as the studies in reference list.

Silva AA	2014	Brazil	Song J	(37)	2020	Korea
(28)						
Tuvishime J	2003	Canada				
(29)						

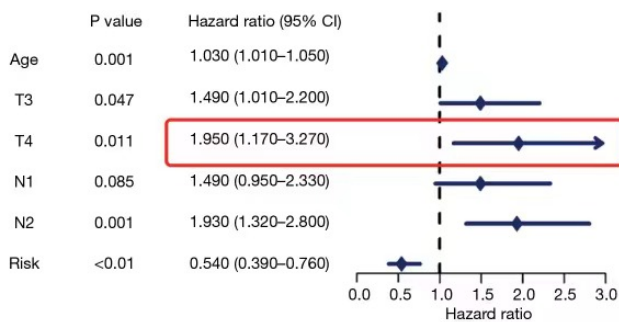
Reply 2: Thanks for your reminder, we have modified the text of *table 1* as advised.
Changes in the text: Table 1.

Comment 3: Figure 2

To standardize the results, the part that exceeds the horizontal coordinates should be indicated by arrows.



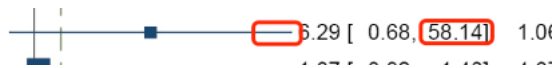
Please see the example below:



Reply 3: We have modified the figure as advised.
Changes in the text: Figure 2.

Comment 4: Figure 3

To standardize the results, the part that exceeds the horizontal coordinates should be indicated by arrows.



Reply 4: We have modified the figure as advised.
Changes in the text: Figure 3.

Comment 5: Figure 4

To standardize the results, the part that exceeds the horizontal coordinates should be indicated by arrows.



Reply 5: We have modified the figure as advised.
Changes in the text: Figure 4.

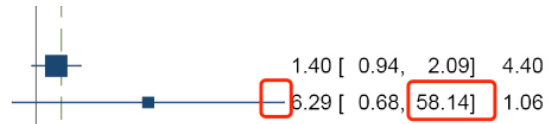
Comment 6: Figure 5

To standardize the results, the part that exceeds the horizontal coordinates should be indicated by arrows.

After 2010

Dawood FS 2020

Ersoy AO 2017



Reply 6: We have modified the figure as advised.

Changes in the text: Figure 5.

Comment 7: Figure 2-5

a) Please check the year of the following studies in the figure, they should be the same as the reference list: Dawood FS **2020**, Newsome K **2018**, Regan AK **2021**, Stephansson O **2021**

b) Please check the author's name of the following studies in the figure, they should be the same as the reference list: **Silva AA** 2014, **Song J** 2020, **Tuvishime J** 2003

c) Please explain CI in the legend.

d) Please check if here should revise to 1? If yes, please also check the whole figure, some study's results exceed the horizontal coordinates, they should be indicated by arrows.



Reply 7:

a) We have modified the year of the above studies.

b) We have modified the author's name of the above studies.

c) We have revised the legends of figures as advised.

d) We have added OR=1 and required arrows to the figures 2-5.

Changes in the text: Figure 2-5.

Comment 8: Figure 6

Please explain CI in the legend.

Reply 8: We have revised the legend of figure 6 as advised.

Changes in the text: Legend of figure 6.