Reviewer’s report

Title: Depressive disorder and grief following spontaneous abortion

Version: 1
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Reviewer: Dahee Kang

Reviewer’s report:

This paper examines an important topic, the associations of spontaneous abortion and following depression in Sri Lankans. However, study design and result presentation need to be improved to support the conclusion. Especially, if the authors tried to conduct a case-control study, outcome (depression) ascertainment should be made first and then exposure (spontaneous abortion) measurement should be followed. Following the authors description, the study is more alike prospective cohort design, however the details of follow-up for the controls is not described. In addition, the selection of the controls needs more detailed description.

The following are suggestions for the authors to consider

Abstract

Major compulsory revision

• Line 21-22. There are many studies regarding this issue.
• Overall descriptions in the method and results not seems to support the conclusion sufficiently.
• Line 47-48. What is the target population for measuring the prevalence of grief? Also, the phrase “prevalence of grief” and “features of grief” seems inappropriate. More discrete term should be used.

Minor essential revision

• Line 27. The “intensity of grief” is not suitable to measure the prevalence and risk factors. It should be re-worded.
• Line 34. “Severity of depressive symptoms” would be more appropriate than “Intensity of depression”.
• Line 51. “Almost half the women” --> “Almost half of the women”

Background

Major compulsory revision

• Line 63. What is symptoms of grief? More detailed description is needed.
• Line 66-67. Normal bereavement does not always provoke depression.
• In the second paragraph, the word grief and depression is used simultaneously although they have distinct different meaning and dimension. Grief can be the
natural course of normal bereavement, but depression itself is pathologic situation.

- In the fifth paragraph, it is mentioned that studies regarding the topic of this study were conducted in Western countries. However there is no mention for the need of corresponding studies in Asian countries.
- Line 88-89. There are many studies regarding this issue.
- Line 89-90. More description is needed to support this sentence. The design, main findings and major limitation of the corresponding studies should be mentioned to support the necessity of current study. Also, references are needed.

Minor essential revision
- Line 58. Relevant reference is needed.
- Line 59. Relevant reference is needed.
- Line 60. The word “depression” is duplicated in one sentence.
- Line 69. Relevant reference is needed.
- Line 78. Relevant reference is needed in “ In the majority grief decreases within 3-4 months”
- Line 87. The word ‘naturally’ would be more appropriate than ‘spontaneously’.

Methods

Major compulsory revision
- Overall, there are some uncertainty in the study design. If the authors tried to conduct a case-control study, outcome (depression) ascertainment should be made first and then exposure (spontaneous abortion) measurement should be followed. In this study, authors selected women who underwent spontaneous abortion first, and then controls were selected in the normal pregnant women.
- Entire process of control selection is ambiguous. More precise description should be made in this process. In Line 102, it is mentioned that controls were selected randomly, but authors should mention about precise procedures for randomization and what was the number of target population. Additionally, how did the controls ascertained whether they did not had spontaneous abortion previously?
- Line 101-102. How the induced abortions were suspected?
- Why did the authors used OR of 2.0 to detect risk factors? There should be relevant descriptions to support the decision.
- Why were there no matching in the case-control study?
- Line 106-108. More precise description for inclusion criteria is needed.
- Line 112. Why did authors select this period for depression ascertainment? It is possible that people experience depression more after this period.
- Line 112-114. This sentence should be elaborated. It is hard to understand.
In the first paragraph, the meaning of the high scores on PPHQ-9 should be added.

Line 123. Introduction or additional information about Perinatal Grief Scale is needed. Also, the validity of this tool should be discussed.

Line 152. Authors mentioned that they used multivariate regression analysis, however there is no corresponding information on the tables. Also, there is no information regarding covariates themselves or the selection of covariates.

Minor essential revision
Line 103. The name of two hospitals should be mentioned.

Results
Major compulsory revision
Line 161-162. As there was significant difference in age, is the age adjusted in the final model? In addition, there is no mention about the results of the final model.

Line 164. Why the information for ‘period of amenorrhoea’ needed?

Line 171-173. If the cases were ascertained for depression after 6-10 weeks after spontaneous abortion, how was the depression assessed in the controls?

In the third paragraph, it is wrong to describe the factors as not the risk factors for depression simply they were not in statistical significance.

In the 5th paragraph, please summarize the results in a supplementary table.

Discussion
Major compulsory revision
Line 207. What is the “criteria for grief”. There needs extra information and re-wordings.

In the second paragraph, it seems that the baseline characteristics for features are different in depression related to obstetrical events compared to other depression. It should be clearly mention about depression such as postnatal depression or other general depression being compared. Also, exact number of proportions should be presented.

Line 217-218. Please provide the detailed reason.

Line 224. Please provide the detailed information for the “functional impairment criterion”

In the third paragraph, authors mention about other comorbidities. However, there is no relevant analysis in the method section or results section.

In the 4th paragraph, it is not clear what comparison the authors wanted to make. Spontaneous abortion vs. Induced abortion? More discrete mentions should be made.

Line 256-258. More detailed description is needed.
• Is seems that the conclusion of this study is not sufficiently supported by the results.

Minor essential revision
• Line 212. Needs English correction.
• Line 216. Reference needed in “abortion is in the range of 40-50%”
• Line 218-219. Relevant reference is needed
• Line 234. How many studies were included in the systemic review?
• Line 235. Induce abortion --> induced abortion.

Level of interest: An article of importance in its field

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

We declare there is no conflict of interest