Reviewer’s report

Title: The prevalence, metabolic disturbances and clinical correlates of recent suicide attempts in Chinese inpatients with major depressive disorder

Version: 0 Date: 21 Jan 2019

Reviewer: Taiane de Azevedo Cardoso

Reviewer's report:

This is an interesting manuscript showing the factors associated with recent suicide attempts in an inpatient sample of individuals with MDD. The innovative aspect of the study is that they included only recent suicide attempts, and also that they are looking for an objective markers (blood biomarker) beyond the clinical characteristics. I have some suggestions to contribute for the improvement of this paper.

1. Abstract: Authors described even the results that did not survive after the bonferroni correction. Please, keep just the significant results, which kept associated with the outcome in the regression analysis.

2. Abstract: The first sentence of the conclusion is not needed. Because is very well documented that the prevalence of suicide attempts is higher in subjects with depression, as compared to general population.

3. Keywords: I would suggest including "metabolic disturbance" as a keyword.

4. Introduction: In the end of the first paragraph: "Previous studies reported that the risk factors included: gender…". Please, specify the direction of the association. Women or men presented higher proportion of suicide attempts?

5. Introduction - Aim: Please, replace "risk factors" for "associated factors", considering that the current study is cross-sectional, and you can not determine the risk factors.

6. Introduction: The authors should included in the introduction the importance of this study, as well as what this study is adding to the literature.

7. Methods - sample: It is not possible the comorbidity between MDD and bipolar disorder, as well as between MDD and schizophrenia. I suggest to the authors to reword the sentence in the inclusion criteria #5 for: "do not have the diagnosis of bipolar disorder, schizophrenia, alcohol or substance use disorders or other psychotic disorders.".
8. **Methods:** In the end of page 4, when authors describe the clinical variables assessed, there is incomplete information - "family history". Please, complete. Did you assess the family history of mental illness?

9. **Methods:** Please, clarify how did you perform the bonferroni correction, in the last sentence of the methods. Did you divide the p-value by the number of comparisons?

10. **Results:** Would be better "methods of attempt" instead of "means of attempt", in the beginning of the fourth sentence.

11. **Results:** There is some confusion in the description of results about correlation. The authors described correlation including categorical variables, such as: recurrent depressive episode, presence of psychotic symptoms, and suicide attempts. We can just perform correlation test using two continuous variables. Please, justify it.

12. **Results:** In the end of the results, please replace the "significant predictors" for "significantly associated with".

13. **Discussion:** In the first paragraph, I suggest to include "associated with suicide attempts" in the following sentence: "This was an exploratory cross-sectional clinical study, examining the socio-demographic, clinical characteristics and biochemical parameters associated with suicide attempts in Chinese inpatients…"

14. **Discussion:** Also, in the first paragraph of the discussion, please include just the results that kept associated with the outcome in the adjusted analysis.

15. **Discussion:** I think that the authors can remove the second paragraph. Because they cannot compare their results about the prevalence of suicide attempts with the general population. They can just compare with studies including MDD samples, as described in the third paragraph.

16. **Discussion:** In the end of the third paragraph, the authors described that the variability regarding the prevalence of suicide attempts among studies may be related to the differences in the definition of suicide attempt used, sample selection, and the duration from suicide attempt to blood sample. I suggest to remove this part regarding the "blood sample", because it did not interfere in data regarding prevalence of suicide attempt.

17. **I think you do not need to discuss about the methods of suicide attempts (paragraph #4), because it was not the main aim of your paper.**
18. Strengths of the study are missing in the discussion. Please, elaborate it.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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Please indicate the quality of language in the manuscript:

Acceptable

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