Reviewer’s report

Title: "Association of TPH-1 and TPH-2 genes with suicidal behavior: A systematic review and meta-analysis"

This is an interesting meta-analysis about the association of gene polymorphisms and SB. If the revisions recommended to the authors as below are finished well, it should be considered for publication in this Journal.

1. The range of title seems to be a little larger. In my opinion, “Association of TPH-1 and TPH-2 gene polymorphisms with suicidal behavior: A systematic review and meta-analysis” is better.

2. Pay attention to the details since some minor mistakes were found in your manuscript, e.g. line 6 at page 7: (3) should be (4); “relevant” at line 17 in page 13 is beyond understanding; “and to integrate” at line 20 in page 13 should be changed to “by integrating”.

3. Please add 1-2 subheads before the first and second paragraphs in accord with the latter subheads--TPH-1 gene variants and TPH-2 gene variants.

4. The purpose and function of Fig.2 was not explained clearly in the first paragraph of Results part.

5. You said “we also explored all populations in a combined way” at line 20-21 in page. I just find p values for cases and controls, but find no related results for all population.

6. Most contents at line 3-11 in page 10 should be moved to Methods or Discussion part, since they are not study results. Please state detailed study results about TPH-1 at this paragraph.

7. In general, fixed effect model is used when heterogeneity is small, while random effect model is used when heterogeneity is big. However, you used random effect model many times when heterogeneity is not obvious. Why?

8. Discussion section is too shallow. Something should be discussed detailedly and prominently, e.g. the innovation stated at line 9-12 in page 16 was too general, how many new data were included in your manuscript should be explained. What is other innovation of your study? This is very important.

9. The conclusion sentences at line 21-23 in page 16 did not seem to be sound. The reason why the results should be interpreted with caution is not exact.
**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**
I declare that I have no competing interests