Reviewer’s report

Title: Psychotropic medication non-adherence and its associated factors among patients with major psychiatric disorders: A systematic review and meta-analysis

Version: 1 Date: 02 Jun 2019

Reviewer: Ioana Cristea

Reviewer's report:

The authors have worked hard and made substantial changes to the manuscript. I commend them for their effort.

The inclusion criteria are clearer, and the study selection process is thoroughly explained.

The manuscript could really benefit from proofreading, unfortunately I simply do not have the time to do that. Please drop phrases that say very little to the reader like "google searches" (if anything, mention Google scholar which is where articles can be found). Certain words are difficult to understand (e.g., what do purposive or pin drive data sharing mean).

However, the statistical approach is still inadequate. Meta-analysis of proportions are a particular case of meta-analysis, due to the nature of the data and to the fact that they do not estimate differences, unlike all other types of meta-analysis. The authors description of their methods has expanded, but it's still insufficient. I would really like to ask the authors to consult the resources I suggested in my previous review, which explain the specifics of this type of meta-analysis (i.e., Cochrane handbook (section 9.4.8) and https://jech.bmj.com/content/67/11/974). This is not just about the choice of the software, and CMA remains insufficient for correctly conducting a meta-analysis of proportions. I understand the authors do not have the resources to redo the search, but the statistical approach needs to change or at least be fully explained so readers can assess its appropriateness. The authors need to specify the approach used for variance calculation and particularly variance stabilization. They also need to explain what method was used for the calculation of the confidence intervals and why. What is now described is completely insufficient for a meta-analysis of prevalence.

Why were 11 studies excluded from the meta-analysis? Did the authors attempt to retrieve data? If yes, to what extent did they manage?

Table 1 remains unreadable. Please at least attempt to break it into tables. If events were also extracted and not just rates, please also include those. The main findings section is difficult for the reader to go through, the authors need to at least extract and display the main quantitative finding (like rate of non-adherence, events) for each study separately. Please think other researchers might need to use this table, and as it is now, they would need to extract the data from the main findings column themselves. Also, what does the column sample refer to? If size, then specify that. The column about study aim could also be simplified.
I did not find the quality ratings in the Results section: these should be summarized in a dedicated paragraph and also presented in a table for each study.

What statistical tests were used for funnel plot exploration? These are not described in the methods section.

**Level of interest**
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Please indicate the quality of language in the manuscript:

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