Reviewer's report

Title: An intensive multimodal group programme for patients with psychotic disorders at risk of rehospitalization: a controlled intervention study

Version: 0 Date: 24 May 2019

Reviewer: Elizabeth Camacho

Reviewer's report:

This paper appears to be generally well-written apart from the results section which could be improved.

The first major issue with this paper is that while the authors report unadjusted mean values for LOS or costs, for adjusted values they report a beta coefficient, standard error and p-value. This does not make it clear for readers how they should interpret these adjusted differences. The authors should present the adjusted differences in the natural unit e.g. length of stay in number of days/ nights and costs in euros. It would really help the clarify the results of the analyses if all of these differences were presented in a table. This would enable readers to better assess some of the conclusions being made.

The second major issue is the "outlier" in the control group with an inpatient stay of more than 300 days. Was this duration of stay double-checked to ensure it was not a data entry error? The authors conclude that essentially it did not make a difference when this person was excluded, however before excluding them the difference in length of stay and mental healthcare costs were significant and following exclusion the differences were not statistically significant, so is this fair to say? Related to the comment above, if the authors presented the differences in natural units then regardless of statistical significance, readers could assess for themselves whether there was a meaningful difference. For example a difference in length of stay of 0.5 days may be statistically significant but not significant in real-world terms. Please can the authors present the adjusted mean differences between treatment groups including and excluding this individual - it is unclear if the second sensitivity analysis reported excluded only this person or this person and the people who were in hospital at the start of the study.
There is no indication of whether this was a pilot or feasibility study, and if it is not to be interpreted as such then whether it was powered to detect a difference in the primary outcome measure as the sample size is small.

Background - page 3, it is unclear what the authors mean by "Its interventions included adherence treatment…", should this read "treatment adherence"?

Background - the authors report the results from previous studies for both intention-to-treat and "completer" analyses. The authors should acknowledge why the completer analyses may yield different results than ITT (i.e. biases) and why these should therefore be interpreted with caution.

Methods - the authors include the cost of FACT Plus in their analysis of healthcare costs however they do not report what the cost of FACT Plus was or how it was calculated. The description of the intervention, especially the co-prepared lunch, seems like it would be complex to measure the resources involved. The details of the costs/costing approach should be included.

Methods - one of the secondary outcomes was "mental healthcare costs", please specify which services were included in this category.

Discussion - the authors note that there was a difference in the number of compulsory admissions - some discussion of what may lead to these types of admission would be helpful, for example are they an indication of illness severity or of engagement with healthcare professionals.

Discussion - the authors describe their reasoning for treatment allocation by north/south geography. Could there be some other differences in characteristics between the groups that may be related to the outcomes explored which haven't been adjusted for, for example socioeconomic status, or different care pathways in the localities?
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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?
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No

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