Reviewer's report

Title: Effect of community-based health management on the elderly health: a prospective randomized control trial from China

Version: 3 Date: 6 June 2012

Reviewer: Irena Draskovic

Reviewer's report:

Dear author,

First of all, I would like to congratulate you with the completion of your extensive study. I think you’ve invested huge efforts into preparing and conducting this study. In general I find your study relevant and interesting. However, in order for me to be able to evaluate your work more reliable I feel that the quality of reporting and writing in your manuscript needs to be improved significantly. Please see my comments below. I would really like to see this study published and would appreciate it greatly if the authors would be able to address my concerns.

Major Compulsory revisions

1. Is the question posed by the authors well defined?
   - Abstract: It is not clear to me what exactly was the research problem. In other words, why do we need this research? This is not to say that there isn't any relevance to this study only, that this isn’t clear from the manuscript. What I miss in the Background section (Abstract) is something like: ‘..Providing affordable and good quality care for the growing aging population in China, poses problems. Several studies have shown that managed care (MC) can be effective yet, also efficient in solving at least some of these problems. The advantages of managed care are that it improves accessibility of care which improves its quality and effectiveness while, at the same time, reducing the costs of care… However, the findings on the effectiveness of MC are inconclusive so far; there have been too few RCT studies to draw reliable conclusions. Therefore,... research question as to what extent is managed care effective in reducing medical cost, and in improving clients’ health in an urban setting in China.” Something like that. In general, a clear statement of the problem often leads to a clear research question.
   - Introduction: The same (see above) should also be more clearly stated in the introduction section of the manuscript. The final part of the Introduction section is difficult to understand. A more clearly stated reasoning would be helpful. Perhaps something along these lines: ‘So far, reliable empirical findings show the following: .....1. 2. 3. ..... What is still not clear is how/what.... ? We will focus on the question of .... Hypotheses (expectations): if ‘so-and-so’ than we would expect 1. xx to increase and 2. yy to decrease…due to….<something>’

Furthermore, a possible causation path is from xxx via yyy to zzz…'
2. Are the methods appropriate and well described?

- It is difficult to understand the methodology used in this study. The second subtitle in the methods section does not properly match the content. In "Investigation method and community-based health management measures", the design and the measures are not sufficiently described. The information on the design and the measures is mixed with partial information on the intervention components. I do understand that an RCT design was used in this study. However, to be able to understand how this is done it would be helpful to enclose a graphical depiction (a flow diagram) of the study design. (see e.g., Reporting of participant flow diagrams in published reports of randomized trials. Sally Hopewell*, Allison Hirst, Gary S Collins, Sue Mallett, Ly-Mee Yu and Douglas G Altman, BMC, Trials 2011, 12:253)

- The actual intervention with all the comprising components should also be clearly outlined. Preferably in a chart (see e.g., Perera R, Heneghan C, Yudkin P. Graphical method for depicting randomised trials of complex interventions. BMJ. 2007;334:127–129. doi: 10.1136/bmj.39045.396817.68.)

3. Are the data sound?

- The data seem to be sound. However, there are no reports on blinding. It would be helpful to include this kind of information in the manuscript.

- There is no information on (at least) the reliability of the self made instruments.

4. Is the writing acceptable?

- Unfortunatelly, the writing is rather imprecise. Often the wrong terminology is used (e.g., ‘ decease ‘ instead of decrease in Discussion section) and grammar is often incorrect. I do understand that the differences between Chinise and English are huge and that it is not easy to write in English as a non-native speaker (I know this from my own experience). I tried as much as possible to see through the difficult language and estimate the relevance and the quality of the study regardless of the quality of writing. I have an impression that the study is conducted correctly although the exact design (graphical depiction) should be enclosed and the components of the intervention should be outline before this conclusion can be made. Furthermore, the methodology section should mention ev. blinding procedures. I guess, what I’m saying is that writing should be thoroughly revised and checked by a (near) native speaker

Minor Essential Revisions

1. Does the manuscript adhere to the relevant standards for reporting and data deposition?

- I’m not sure if the multiple t-tests were performed in a single analysis, in which case I believe that some method of correction for multiple comparisons would be appropriate; as I’m not sure about this, the authors should preferably consult a statistician on this issue.

- Some guidelines for data and analyses reporting (e.g., CONSORT) could be
consulted by the authors in order to improve the quality of the manuscript.

2. Are the discussion and conclusions well balanced and adequately supported by the data?
   - I find it very difficult to follow the line of reasoning in the discussion. I suggest that the authors rewrite it and let it be corrected by a (near) native speaker of English. Also they could consult guidelines on writing a discussion.
   - I have an impression that the data could be more thoroughly/deeply discussed. What I miss is a discussion on the consequences of the findings for the existing theories/practice. In the present version of the manuscript the previous findings are simply summed up without relating the new findings to the existing ones.

3. Do the title and abstract accurately convey what has been found?
   - Please see the comments on the abstract above. The title conveys what has been done but not what has been found; I think that’s ok. However, in the title and throughout the manuscript, the word ‘prospective’ is used in combination with ‘Randomized Controlled Trial’ which is redundant.

Discretionary Revisions
1. In this kind of studies, with many outcomes, it could be helpful to determine the levels of outcomes (compliance to the intervention, cognitive effects, behavioral effects, health gains) and try to perform a path analysis testing a theoretical model of the possible chains of effects (moderation, mediation). A presently reported series of Regression analyses obscures more than it illuminates.

Kind regards,
Irena Draskovic
Radboud University Nijmegen Medical Centre
The Netherlands

**Level of interest:** An article of importance in its field

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

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare I have no competing interests.