Reviewer's report

Title: Does treatment of subsyndromal depression improve depression- and diabetes-related outcomes? A randomised controlled comparison of psychoeducation, physical exercise and diabetes re-education

Version: 2

Date: 10 February 2015

Reviewer: Hiran Thabrew

Reviewer's report:

The authors present a well-defined question regarding the treatment of sub-syndromal depression in people with type 2 diabetes. The title of the paper is appropriate to the research question. Methods are clearly presented in adequate detail. Processes of randomization and controlling are also well described.

Improvements would be advisable in the following areas:

1. A clear statement about the prevalence of subsyndromal depression in the general and target populations would make it easier to understand the relevance of this issue to clinical practice.

2. The second paragraph of the introduction on page 3 states that subsyndromal depression rarely remits spontaneously, but this is potentially contradicted by the study’s findings where participants in all 3 arms showed improvement. Admittedly there was no absolute control group (receiving no treatment at all), but spontaneous improvement not related to any treatment would be one explanation that has not been discussed and should be.

3. My main concern about this paper is that, according to the methods section, data was collected at 8 weeks, 6 months and 12 months, but results are only presented in text and tables for the 12 month time point. Please could the authors provide the remainder of the results and comment on any discrepancies between short and long term findings?

4. Other confounders or population variables that might account for the obtained results have not been discussed. It would be good to see the discussion augmented to include this dialogue.

5. Within the discussion it is mentioned that people with higher depressive symptoms and more serious emotional problems showed greater improvement. Were these analyses undertaken post-hoc or were they planned? I'm not sure they were mentioned in the methods section.

6. Were any of the participants receiving medication or other treatments for depression during the study?

7. Do you know what the cause of death was in the 3 patients who died during the study?

Once these issues have been addressed, the paper should be suitable for
editorial consideration for publication.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

None