Reviewer's report

**Title:** Cost-effectiveness of family psychoeducation to prevent relapse in major depression: Results from a randomized controlled trial

**Version:** 2  **Date:** 2 November 2011

**Reviewer:** Judith Bosmans

**Reviewer's report:**

Major Compulsory Revisions

1. Too much number are presented in the text (yens and dollars). Since the authors wish to publish in an international paper, I think they should present all results in dollars to increase the accessibility of their results.

2. The authors use an unpaired t-test assuming unequal variances to evaluate the differences in costs between family psychoeducation and TAU. This is inappropriate. They should use bootstrapping, as is also recommended by Barber & Thompson in the referenced paper.

3. A price of 0 yen for family psychoeducation is unrealistic. Somewhere in the reply the authors state that "The purpose of this study was to examine the influence of adding the intervention costs to these direct costs". I don't agree with this. The aim of the paper is (as written in the title, abstract and introduction) to evaluate the cost-effectiveness of family psychoeducation in comparison with TAU. This means that the authors should decide on the most realistic price of family psychoeducation for their main analysis, should include the costs of family psychoeducation in their cost-estimates and test this assumption about the price of family psychoeducation in sensitivity analyses.

4. I am really concerned about the large difference in SDs and ranges for the relapse free days. I am wondering whether there were no additional interventions in the intervention group besides family psychoeducation. It is true that the numbers are really small, so any outliers will have a great effect on the estimates. In truth, I am worried about the validity of the results. Did no one drop out after the first 3? Was there special attention to intervention patients? On the side, considering the skewed distribution of relapse free days, independent t tests are not appropriate.

5. The authors state in the discussion that "Totaling indirect morbidity and mortality costs, which by any estimate far outweigh direct costs [18, 19], the benefits of family psychoeducation are beyond any reasonable doubt." I think this statement is much too strong. Also, the fact that the authors did not adopt a societal perspective but a health care perspective is the most important limitation of the study, but is not mentioned as a limitation. This is an even larger limitation in
view of the fact that "The major reason for non-consent was that the primary family members were unable to participate in the four psychoeducation sessions because of their work."

6. THe drop outs were excluded from the analyses. Therefore, the analysis is not intention-to-treat. To which groups were these drop outs randomized? Were there differences between them and the completers? Were there really no other drop outs/patients lost to follow-up?

Minor essential revisions
7. The description of CEA curves and, especially the sentence "the CEAC shows the probability that the data are consistent with a true cost-effectiveness ratio falling below that value" is unclear. The CEA curve shows the probability that the intervention is cost-effective in comparison with usual care. Why make it so complicated?

8. How reliable is the method of collecting NHI bills? Why is it possible to disentangle hospitalization costs from these bills but not other costs as the authors state in their reply to my previous comments?

9. There is a lot of repetition of the results in the discussion session.

**Level of interest:** An article of limited interest

**Quality of written English:** Needs some language corrections before being published

**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