Reviewer's report

**Title:** The effects of a Cognitive Stimulation Therapy (CST) programme for people with dementia on family caregivers’ health.

**Version:** 2  **Date:** 17 September 2013

**Reviewer:** Rose-Marie Droes

**Reviewer’s report:**

This is an interesting paper on the indirect effect/impact of CST for people with dementia on the general health of their primary caregivers. The description of methods and results (Tables) can be improved.

Based on the data and the analyses made, only preliminary conclusions can be drawn about the indirect effect of CST on the general health of family caregivers. This should be mentioned explicitly in the conclusions section (the first sentence in the conclusion section is not correct because only general health was investigated as an outcome measure). More attention can be paid to the limitations of the study.

**Major Compulsory revisions:**

1) In table 1 data should be presented (including age of carer and severity of dementia of the persons they care for) not only of the total group, but also of the Maintenance CST and usual care group. Differences between the latter two groups at the time of randomisation must be tested. If differences were significant and associated with the outcome measures they need to be included as covariates or classification factors in the ANCOVAs.

2) In the discussion section more attention should be paid to the limitations of the study. For example: (perceived) health of the caregiver is not only related to cognitive impairment of the person with dementia, but also to their behaviour problems, and perceived stress, social support and life satisfaction of the caregiver. In this study none of these patient or caregiver variables were measured or presented in table 1 nor taken into account in the analyses. Although caregivers were randomised, it is therefore difficult to judge if the groups were comparable at these points and thus if there are alternative explanations for not finding an effect of the CST compared to usual care. Therefore in my opinion only preliminary conclusions can be drawn from this study. This should be emphasized in the conclusion section as well. At the same time this is a good argument to advise further research, as the authors did.

**Discretionary revisions:**

3) Throughout the text it should be made explicit that the 'indirect effect' or impact of CST on family caregivers was investigated and not the (direct) effect. See for example the abstract, first paragraph. It should also be emphasized that only the effect on health was investigated (and not e.g. on burden, depression or quality...
of life). See first sentence of the conclusion section.

Minor essential revisions:
4) Background: 4th paragraph final sentence: remove 'it might'.
5) Assessment measures: 4th line: 'The SF-12 was designed...' This sentence can be removed as it is a repetition of the sentence before.
6) Please add the range of the measuring instruments in Table 2 and 3. This will make it easier to interpret the results (as well as ceiling or bottom effects).
7) Discussion: 2nd paragraph, 2nd sentence: please refer to reference number 2.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
'I declare that I have no competing interests'