Reviewer's report

Title: A randomised controlled trial of the use of aromatherapy and hand massage to reduce disruptive behaviour in people with dementia

Version: 3 Date: 18 December 2012

Reviewer: Emmelyne Vasse

Reviewer's report:

I would like to thank the authors for the revised manuscript. Most of my comments were addressed adequately. The comments that are not addressed sufficiently and some additional remarks, are described hereafter (indicated by reviewer response or additional remark).

Major Compulsory Revisions

1. Discussion/Conclusion
Most of the conclusions stated in the abstract and underneath the conclusion heading are not directly related to the research question. The conclusion is too long and should be more related to the primary research question and outcomes.
RESPONSE: The discussion and conclusion have been shorted to refer just to the research questions and outcomes.
Reviewer response: The revised discussion is improved but the authors do not explain the study results. What is their explanation for finding no significant effects? Is further research needed?
The 2nd paragraph is about the relation between cognitive impairment on type of aggressive and nonaggressive behaviours displayed. The purpose of this paragraph is unclear. How does it relate to the interventions investigated in this study?
Conclusion: In the last sentence of the conclusion it is said that the results are important for practitioners. It would be helpful for practitioners if the authors explain why the findings are important? How should practitioners interpret the findings considering the limitations of the study? In what way are the findings important for researchers?

2. Introduction: The rationale as described in the introduction could be more convincing. The 4 example studies appear to be a bit of a random pick of studies that did something with massage and/or aromatherapy. Rather than stating limitations of single studies it would be better to describe limitations and knowledge gaps based on systematic reviews in this area and recent studies in
addition to that.

RESPONSE: The introduction has been rewritten to focus only on recent studies that have shown an effect using Melissa oil or Lavender Oil.

Reviewer response: The introduction is revised but still misses an overview of scientific knowledge based on systematic reviews. For instance, Cochrane reviews from Holt et al., and Viggo Hansen.

It remains unclear why the authors investigated the effect of hand massage in addition to aromatherapy?

3. Additional remark

Table 4 was added to the results section. Why are results described for all participants together and not for the 2 intervention groups and the control group separately? Readers are now unable to compare outcomes for each group.

Minor Essential Revisions

4. What is meant by ‘two weeks of agitation of aggression. Two consecutive weeks

or a minimum of 14 days within the past three months. Staff reporting agitation/aggression in a patient record or agitation/aggression based on outcomes of a valid instrument.

How was it made sure that all facility managers applied this criterium in the same way?

RESPONSE: This has been revised to “a documented history of a minimum of two
weeks of agitation or aggression in total within the past three months.

RESPONSE: The facility managers recorded the documented episodes of agitation/aggression over the previous 3-month period. Participants in the study meet this minimum with all participants recording 2 or more episodes a week.

Reviewer response: It is still unclear to me what is meant by ‘a documented history of a minimum of two weeks of agitation or aggression in total within the past three months’. Is it on a daily basis for 14 consecutive days within the past three months?

Or maybe an episode of agitation or aggression on at least 14 days, but not necessarily consecutive days, within the past three months?

5. The authors should explain their choice of lavender oil either make a case for it in the introduction or provide an explanation in the methods section

RESPONSE: The choice of lavender oil has been explained in the introduction.
“Lavender oil was chosen because it was shown to have the most consistent effect on aggressive and nonaggressive behaviours.”
Reviewer response: Please provide the references for the publications that underline this statement.

6. Additional remark
The statistical outcome described in the last sentence of the paragraph “Linear Regression and Goodness of Fit”. (R2 = 3E-06) seems an odd outcome? Might be typo?

7. Additional remark
Figure 1: the box that describes reasons for exclusion was amended in response to reviewer 4. Why were the numbers of persons excluded because of MMSE 24/30 and hospitalization also changed?

Discretionary Revisions

8. The last part about treating disturbed behavior individually is in line with current knowledge in the field and probably deserves more attention in the discussion.
RESPONSE: A statement about needs driven behavior has been added to the discussion
Reviewer response: Although meeting the needs of people with dementia may indeed be an important focus for future studies, this is not what I meant with this remark. What I meant is that various reviews about the effects of non-pharmacological interventions for behavioral disturbances in dementia conclude that there is probably not 1 intervention that is effective for all dementia patients. It might be better to tailor interventions to the needs and wishes of an individual person. Aromatherapy and/or hand massage therefore might be effective for individual patients, despite the outcome of this study? What would be the opinion of the authors about that?

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:
'I declare that I have no competing interests'