Reviewer’s report

Title: The Kusamala Program for primary caregivers of children 6-59 months of age hospitalized with severe acute malnutrition in Malawi: study protocol for a cluster-randomized controlled trial

Version: 0 Date: 27 Sep 2017

Reviewer: Henrik Friis

Reviewer's report:

The protocol is well-written, detailed and describes a relevant and interesting study.

Allocation concealment: It seems from Figure 2 that this is ensured, but should be explicitly accounted for.

L139: "This design will also prevent an overlap ...." Does this mean that new children will not be enrolled (t-1), while previously enrolled children are being given the intervention? If yes, could this result in spill-over between intervention groups?

Blinding: It is described that NRU staff including data collectors are blinded to group allocation (p 15), but it is not described who will assess the main outcome using MDAT. Are data assessors different from the 5 nurses trained to deliver intervention? This doesn't seem to be described? It may help to explain where the intervention is taking place, relative to where children are being screened, recruited, enrolled and examined?

Figure 1 give the impression that children may be

It is described, that any adverse events will be recorded (p 18), but it is not clear what adverse events could be expected from this low risk intervention?

Discussion: It is mentioned that the trial will examine the feasibility of implementing the intervention at an nutrition rehabilitation unit (p 19), but it is not clear from methods description how feasibility will be assessed. Assessment of program fidelity is mentioned, but other aspects of feasibility might be relevant?

It seems very relevant to test impact of a short and easily administered program. However, it might be optimistic to expect effects of a 4-day intervention on child development outcomes at 6 months? It will be interesting to see the findings from this trial!

Henrik Friis completed this reviewer with his colleague, Postdoc Mette Frahm Olsen

Level of interest
Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests
Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Quality of figures
All images and figures within the manuscript should be genuine i.e. without evidence of manipulation. No specific feature within an image may be enhanced, obscured, moved, removed, or introduced. If you have concerns about the veracity of the figures you should choose the first option below.

Statistical review
Is it essential that this manuscript is seen by an expert statistician? If so, please give your reasons in your report.

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

'I declare that I have no competing interests'
I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.