Reviewer's report

Title: TALKING TIME: A pilot randomized controlled trial investigating social support for informal caregivers via the telephone

Version: 2 Date: 10 Feb 2020

Reviewer's report:

Having recently been involved in development and evaluation of an on-line intervention for family carers of people living with dementia, it was very interesting for me to review your paper. I can see that this is a third submission and I have not been involved in the earlier reviews and have not seen the reviewers' comments, except for the editor's request for you to avoid overlap with your published protocol paper. I have therefore come to the paper as a new and naive reviewer.

The paper comes across as a clearly written report of a carefully conducted study to pilot test a complex intervention, with attention to recruitment, retention and effectiveness measures. It was helpful to see the compliance with CONSORT guidance.

I felt the background, methods and analytic strategy were all well outlined with the caveat that I am not a statistician, so although I have some knowledge of the analysis you undertook, I do not consider myself expert.

In terms of reporting and discussing the findings, I was uncertain why you included a power calculation as if carrying out a definitive trial and why you have paid a lot of attention to whether there were significant changes in the outcome measures, given that the study was couched as a pilot trial. It does seem that the primary outcome measure you chose was suitable in terms of picking up change and its use has given an indication of the variability in scores that would need to be taken into account in a definitive trial. I wonder if the findings around this and the secondary measures would have been best couched in this way rather than as a test of effectiveness.

The outcomes of the recruitment process, which show that 38 potential participants took part, 33 did not meet inclusion criteria and 30 declined, are of interest. It would have enhanced the paper to see more information about which aspects of the inclusion criteria were not met and what implications this has for targeting of relevant population during a definitive trial. The conclusion you draw, about needing to recruit from more centres and have more resources to enable recruitment would be helpful but maybe other strategies are also implied by your pilot experience, e.g. the need to reach the appropriate people to avoid having such a significant number who do not meet the criteria. The most common reason for declining (i.e. different content had been assumed) also has lessons for a future trial but this is not mentioned in the discussion.

Given that this is a group intervention with 4 participants per group, some consideration of the influence of group might be important to address.

Additionally, you do mention the value of follow-up but this was precluded by your design which offered the intervention to the control group. I don't understand why this is said to be 'for fidelity
reasons', though can see it could be for ethical reasons. A strategy to follow up for a longer period would seem to be important in a definitive trial.

In conclusion, it would be possible to strengthen the consideration of the implications of your findings but overall this is a competent report of a well conducted study.

Some very small presentational points which need to be addressed:

Do carers need to be referred to as ICs? 'Carers' would not add significantly to length of the script and would feel more respectful and be more understandable.
Are the abbreviations necessary in the abstract (PwD, HRQoL, SF-12 etc.)?
Penultimate sentence of the abstract contains a stray 'the'.
p.4, line 13: 'informal caregivers remain the cornerstone of care needs living at home' needs to be rephrased.
p.4, line 71-72, 'The care responsibility increases over the course of dementia, especially as challenging behaviors occur and cognitive abilities decline.' requires a reference.
p.8, line 46: 'the principles of the theme-centered interaction' - no 'the' needed
p.11, line 46: 'The assessment was based on a proxy rating (a particular informal caregiver)' - not sure what the bracket is referring to. Please rephrase.
p.12, line 49 onwards: 'The whole data collection process.....' does not make sense to me. Please rephrase.
p.13, line 39: 'Based on some instances of missing data' - which instances?
p.18, line 49: 'caregiver's needs to have its apostrophe moved.
p.19, line 7: 'planned'
p.19, line 34: 'was further adjusted to the baseline data T0 data' - does't required both baseline data and T0 data.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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