Author's response to reviews

Title: Combining a leadership course and multi-source feedback has no effect on leadership skills of leaders in postgraduate medical education. An intervention study with a control group.

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Version: 3 Date: 1 November 2009

Author's response to reviews: see over
To the reviewers

Regarding: MS: 1665117035293216
Developing leadership skills of leaders in postgraduate medical education. Effect of combining a leadership course and multi-source feedback.
Bente Malling, Lene Mortensen, Thomas Bonderup, Albert Scherpbier and Charlotte Ringsted

Thank you both for relevant comments.

Since you both raised questions regarding statistical analysis a statistical review has been made and data have now been analysed by multivariate analysis according to advice from the statistician. With the use of this stronger method data shows no statistical significance (p= 0.149). In the previous version of this paper we used the less strong methods Mann-Whitney’s U-test and Wilcoxon signed-rank test and found a small effect in self-ratings in the intervention group compared to the control group. But as we mentioned in the discussion the effect was not substantial.

The paper has been revised according to this new finding. Please note that the title has been changed to:
Combining a leadership course and multi-source feedback has no effect on leadership skills of leaders in postgraduate medical education. An intervention study with a control group.

Associate professor and statistician Arno Muijtjens, Maastricht University, who made the statistical review has been included in acknowledgements.

Below please find answers to comments point-by-point written in italics.

Reviewer’s report
Title: Developing leadership skills of leaders in postgraduate medical education. Effect of combining a leadership course and multi-source feedback.
Version: 1 Date: 3 October 2009
Reviewer: Jim Price

Reviewer’s report:
This paper addresses an important area in medical education at the postgraduate level since there is little in the literature about the effectiveness of different programs in terms of leadership development of medical educationalists.

Discretionary
The abstract is reasonably clear although the way the ‘results’ section is written is a little confusing. Perhaps insert ‘MSF’ or ‘other’ before the word respondents in line 4. There is a double negative in Line 5.

In the abstract the results section has been revised

The background sets the scene well and the study design is clearly set out in the methods section.
The results showed little difference overall and even the self rated improvement in techniques could well be accounted for other factors that some such a selection bias, as is acknowledged in the discussion. Perhaps there might have been a little more analysis/comment on the large number of exclusions in the control group as compared with the intervention group.

In the discussion a few more comments on the large exclusions have been provided.

It would also have been interesting to have known the medical specialties of the participants - especially when all the issue of self-confidence as discussed (top of page 12). It may be interesting to see for instance whether surgeons are more self-confident than physicians. I wonder if you had addressed this point in anyway?

An interesting question is raised here. This was not part of our research question and we do not think that the relatively small number of CRE’s participating in the present study could give a fair answer to this question – but still it might be interesting to investigate in another larger study.

Whilst this paper shows that the addition of leadership course to multisource feedback might improve leadership skills at one year, a multi-method approach including qualitative data might well have offered stronger evidence for this.

This is a relevant concern regarding the study design. We chose not to include qualitative data in the study design, but we agree that a qualitative approach might have given more information and might have given evidence.

Although the impact of this paper will probably not be huge, I think it is important to publish results where minimal impact is found from what one might have expected to be a significant intervention. As such it adds to the academic debate in this area.

Minor
At the bottom of page four letters CRE introduced without definition, and there are a few other grammatical errors (e.g. In 5 page 4 – ‘of the leader’ are, in line 2page 7 -- "participants made two assignments" is poor English.)

Definition now provided before the abbreviation CRE is used. Grammatical error on page four corrected and in page seven the language has been improved – just as the language has been thoroughly considered in this revised version - overall.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Needs some language corrections before being Published

Language thoroughly revised

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Statistical review performed, please see overall comment
Declaration of competing interests:
I declare that I have no competing interests

Reviewer's report
Title: Developing leadership skills of leaders in postgraduate medical education. Effect of combining a leadership course and multi-source feedback.
Version: 1 Date: 26 September 2009
Reviewer: Amanda A Howe

Reviewer's report:
Developing leadership skills of leaders in postgraduate medical education. Effect of combining a leadership course and multi-source feedback
Reviewer Amanda Howe
1. Is the question posed by the authors well defined? Yes
2. Are the methods appropriate and well described? Partly – the instrument is not described or its previous validation.

The instrument is described in the section: “Measuring instrument”. The validation process was published in Malling B, Bonderup T, Mortensen L, Ringsted C, Scherpbier AJJA. Effect of multi-source feedback on developmental plans for leaders of postgraduate medical education. Med Educ 2009, 43: 159-167. The reference is provided in the section “Measuring instrument”. The MSF instrument provided in Appendix 1.

3. Are the data sound? Underdetailed so hard to judge. The results say there is a significant difference between the baseline scores and year 1, but the absolute numbers are small, and there are no confidence intervals.

Statistical review performed, please see overall comment

4. Does the manuscript adhere to the relevant standards for reporting and data deposition? yes
5. Are the discussion and conclusions well balanced and adequately supported by the data? Rather brief.

The discussion has been revised. New elements in the discussion are a section on the use of a multifaceted approach to leadership development, extended discussion on the high drop-out rate in the control group and a section on generalisability.

6. Are limitations of the work clearly stated? No – the fact that this is in one country with a specific context that may not be generalisable is not fully acknowledged.

To address generalisability a description of the Northern Educational Region in Denmark is provided in the section “Participants”. In the results section a description of specialty representation is provided. In the discussion a section on generalisability is provided.
7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? yes
8. Do the title and abstract accurately convey what has been found? yes
9. Is the writing acceptable? yes

Revisions (minor essential):
This seems to be publishable but I think confidence intervals should be included and some discussion of whether the conclusions would apply to other CPD settings

According to statistical advice and review, confidence intervals not provided (see overall comment for further explanation). P-values provided in results.
The problem of generalisability has been addressed (see point 6)

Amanda Howe
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27/9/09
Re: 'Developing leadership skills of leaders in postgraduate medical education. Effect of combining a leadership course and multi-source feedback.'
Bente Malling, Lene Mortensen, Thomas Bonderup, Albert Scherpbier and Charlotte Ringsted
BMC Medical Education Research article
Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:
No competing interests