Reviewer’s report

Title: Leading during change: the effects of leadership on sickness absence in a Norwegian health trust

Version: 2 Date: 8 June 2012

Reviewer: Inge Houkes

Reviewer’s report:

Comments to the author(s)

Manuscript “Leading during change: the effects of leadership on sickness absence in a Norwegian health trust”

The current manuscript investigates how the line manager’s behavior relates to sickness absence in a Norwegian health trust during major restructuring. Leader behavior was measured by a questionnaire (N = 1008). Data on sickness absence were provided at department level (N = 35) and were measured at two times. Analyses were primarily conducted using linear regression.

The manuscript is relevant and well-written and has already been extensively reviewed by two reviewers. The authors have adjusted the manuscript based on the reviewers’ comments and have written an elaborate cover letter in which they explain how they have adjusted the manuscript. The authors discuss the methodological flaws of their study quite extensively in their discussion section as well.

As an addition to reviews already available, I have been requested by Angelique de Rijk, the Associate Editor, to provide a short statistical review of this manuscript. Hence, this report focuses mainly on the data analysis.

Major Compulsory Revisions

1. P. 13: The authors report a response rate of 40% on the organizational questionnaire. These data were aggregated to department level in order to be able to perform regression on sickness absence data which were provided on department level only. My question is now whether these sickness absence data were based on 100% of the employees of each participating department or only on the data of the employees who responded to the questionnaire? I assume that the sickness absence data were built in the total group of employees for each department? This would imply that the independent variables in the regression analysis (i.e., leader behavior) were based on another group of respondents/participants than the dependent variables (sickness absence in this case). Please make this more explicit in the manuscript and discuss how this affects your results.

2. Methods and results: Given the research question and the structure of the data it would have been very interesting to use a nested design and perform multi level analyses (individual and department level). MLA has many advantages over
analysis on individual level alone and analysis on an aggregated level. However, as sickness absence data are and will only be available on the aggregated level this is not possible. Instead I would recommend performing a weighted regression analysis (weigh for department size in the analysis). This can easily been done in SPSS by first computing a weight variable (i.e., department size divided by average department size) and then perform the command “weight cases” (by the weight variable) prior the regression analyses. This would be a more efficient solution than considering department size merely as a confounder and correcting for it in the regression analysis (as you did in the current version of the manuscript).

Minor Essential Revisions

1. P. 14: There is a mistake in a sentence at the bottom of this page: “This approach resulted in 10 factors with between two and nine 2 and 9 items.”
2. P. 23: Although the discussion of study limitations is already quite extensive, I recommend discussing the limitations of the aggregated data analyses more extensively. You have lost a lot of information by aggregating the data to department level and the analysis has not been very efficient. It would have been very interesting if you would have been able to perform multi level analysis, given the nested structure of the data.
3. At several places in the discussion you spell “casual” when you mean “causal”.

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.