Reviewer's report

Title: An outreach collaborative model for early identification and treatment of mental disorder in Danish workplaces

Version: 3 Date: 19 Nov 2018

Reviewer: Michael Höfler

Reviewer's report:

1. The authors do right in reporting confidence intervals rather than test statistics and degrees of freedom (because confidence intervals are more informative in providing information on the type II error and an estimate's precision). I would replace the p-values with confidence intervals yet in the abstract.

2. However, statistical tests are not the right instrument to compare the four groups of interest with regard to their characteristics. The impact of these characteristics on group comparisons in outcome only depends on the amount of sample differences (statistical tests refer to the population behind). See Altman's book "Practical Statistics for Medical Research".

3. Thus, the descriptive results should decide on which characteristics the mixed effects models need to be adjusted for.

4. The authors should discuss the impact of classification error in the screening used for their conclusions. Most importantly, "prevalence estimates" should not be calculated while assuming that they were zero (which is absurd) but known estimates on specificity and sensitivity be used to correct them.

5. "To reduce the effects of regression to the mean, cases in the latter subgroup were 24 excluded if not meeting the screening criteria at T0." This is unclear for me. In general, it is fully unclear to me why two time variables should be necessary. These would strongly overlap giving rise to disturbed results. Instead, time can be simple coded with dummies, not as the real time but as the time of interest - with real time being shifted in the one control group. Regression to the mean should be considered through the random intercept.

4. Since the SCL scores are often non-normally distributed and the shape of distribution probably varies between the healthy and the mental disorder groups, the analysis should be repeated with robust methods (e.g. the sandwich estimator of standard errors and/or Box-Cox transformation before the data are entered into the model).
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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?
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