Reviewer’s report

Title: Important work demands for reducing sickness absence among workers with neck or upper back pain: a prospective cohort study

Version: 0 Date: 20 Jul 2019

Reviewer: Markus Ernst

Reviewer's report:

Dear authors,

thank you for submitting this large cohort study to BMC MSK. The manuscript is well written, trying to demonstrate associations between absence from work due to neck pain and other work-related variables.

However, I so far have some doubts whether the conclusion derived from your study are correct, or whether other variables, not measured or not analysed might have led to another conclusion.

1. According to the Global burden of disease study, neck pain has a yearly prevalence of approx. 4-7% in the general population in Sweden, in your study (working population) it must be much larger (approx. 30% in women, and 18% in men). please provide these figures and explain the differences
2. While LBP is often associated with absence from work, neck pain is more frequently associated with presenteeism, at least in jobs with lower physical demands.
3. Neck pain often occurs together with low back pain (LBP), but low back pain has much a higher prevalence, again according to the GBD study, how many in your cohort must have complained about LBP? This may be a major confounder in your cohort and you should have discussed this at least, or mention it in your limitations.
Especially if you look at the questions of your "physical exposure questionnaire", you might see that these questions are not especially typical for neck pain conditions, except from "lifting over shoulder height", but rather are typical questions someone with LBP might answered to.
4. You conclude that sickness absence from work in one year is related to neck pain conditions in the previous year?

I must admit that I do not quite understand your outcome or dependend variable. I thought it must be sick days, dichotomized in more than 14d vs. less or equal to 14d!!?
So how do I have to understand a table 3, where for example the mean n-day for women is 11 (first row)? what does this mean? are these 11 days above a threshold of 14d ? please explain!!
Anyway, I found your statistical analysis rather cautious, using a Wilcoxon test for such a large cohort study with a sample size of more than 10'000! I'm however fine with that, as I am not a statistician, but I would expect somehow a regression analysis, to see which of your independent variables might explain sickness absence and to what kind of a percentage. You may add many more variables to that kind of regression as the kind of work which is a variable you already have, might be of importance, too.
Minor issues:
1. Background, page 4/L 23ff: "women have more neck pain than men which is partly explained to work exposure". please explain why and what kind of work exposure might lead to more neck pain in women, probably not heavy lifting.
2. I would recommend to move the paragraph "study population" to the results section. Within that paragraph the sentence: "Women workers had ...", the order in the brackets should be changed to: (11 and 9 n-days) and again, please explain, as I thought it would be 14 days at least.
3. Results, page 10/L36ff: change the sentence: "A difference was found..." to somehow: Those with fewer n-days reported...

Best regards

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?
If not, please explain in your comments to the authors.

No

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

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