Reviewer's report

Title: Musculoskeletal disorders among construction workers: a one-year follow-up study

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Reviewer: Alberto J Caban-Martinez

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MAJOR COMPULSORY REVISIONS:

ABSTRACT

Background section: In the last sentence of the abstract’s background section, the authors describe the study population to be bricklayers and supervisors. Are the authors referring to the bricklayer’s supervisors or some other independent supervisor? What do the authors mean by “two time point”. Two time points of any on-going study; in the career of a bricklayer? It is not clear what two time points the authors are referring to.

Methods Section: It would be helpful if the authors would describe to the reader the geographic locations from where they drew their sample. Furthermore the time period would be useful as well. For example, “We randomly selected 750 bricklayers and 750 supervisors from XYZ Area from June 2012 to June 2013.”

Results section: It is not clear why the sample size drastically dropped from 750 bricklayers and 750 supervisors down to 267 bricklayers and 232 supervisors. Was this attrition? If it is in fact the case that the final sample size (due to pre/post measurements) is 267 bricklayers and 232 supervisors, it might be better to describe it that way in the methods section as to not confuse your reader. Regarding the sentence “Irrespective of the body region, more bricklayers (43-100%) reported that their complaints were work-related compared with supervisors (37-61%).” Perhaps the authors are referring to the workers “perception” about the relatedness of their workload to their MSDs. If so, it should be labeled as a perception rather than a causal statement.

INTRODUCTION:

It is not clear what the authors are trying to say with this sentence “Furthermore, the strategy for addressing MSDs is also likely to be affected by the limitations that are experienced by workers or the problems that occur during work. ”

Is the first research question suppose explore “the change in self-reported MSDs from baseline to follow up”? If so it should, the sentence should be re-written to reflect this question.

In question 2a, are the investigators seeking to document the perception of the MSDs perceived by the study participants as work-related at baseline or at the
follow up mark? Is it the change of MSDs during the 6 month follow up period for which the investigators seek to document how much is perceived as work-related by the study participants?

METHODS:
Sample and procedures section: Does the Dutch registry contain more than 750 bricklayer and 750 supervisors? If so, could the investigators elaborate as to why they randomly selected 750 individuals from each profession? Was there an apriori power analyses that indicated that given an X-factor of attrition, the study required a recruitment effort of at least 750 workers. Also how was the random selection conducted?

Sample and procedures section: Could the authors explain what type of supervisors where interviewed? Presumably they are supervisors employed in the construction industry but it is not clear from the manuscript.

Sample and procedures section: Are the study participants provided any incentives for completing the baseline or follow up interview? Please describe this information in the manuscript. Was the lottery ticket the incentive? If so what was the prize provided to the winner(s). It appears that there were two lottery tickets available one at baseline and one at follow up.

Work-related musculoskeletal complaints section: Did the authors use the Nordic instrument to assess musculoskeletal complaints? Or perhaps a modified version of the Nordic instrument? Could the authors also provide a citation/reference for the survey instrument they used to measure the MSK complaints?

Tasks and activities section: The authors state “Additionally, the participants were asked to describe the cause or aggravator of their complaints if it was not represented in the list.” Could they indicate if this was an open-ended sentence? If so, could they explain how they handled these responses?

Discussion:
Did the investigators assessed what changed between baseline and follow up time period for those workers that reported at baseline long-lasting musculoskeletal pain yet none at follow up??

Methodological considerations section: the wording of this sentence “Our study provides, based on a random, adequately sized sample of workers provides an improved understanding” is awkward. The word “provides is used twice. Fix this.

Could the authors speculate about the relationship between their older sample population and the prevalence of MSDs. It is well known that the prevalence of MSDs increases with age, therefore could the authors discuss the relationship between MSDs and Age in their study sample?

Did the authors assess the study participants for existing health conditions such as arthritis that can be affecting the report of MSK?

TABLES
Table 1: The title of the table is poorly described. The table title should be standalone and describe the data in the table as well as study population and time period. For example, table 1’s title could be written as “Demographic and job characteristics among bricklayers and supervisors participating in a baseline and follow up survey, December 2009 to January 2011” Same concern for Tables 2 to 4.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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