Author’s response to reviews

Title: Factors associated with the prevalence of back pain and work absence in shipyard workers

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Author’s response to reviews:

Reviewer reports:

Prawit Janwantanakul (Reviewer 1): Please include all comments for the authors in this box rather than uploading your report as an attachment. Please only upload as attachments annotated versions of manuscripts, graphs, supporting materials or other aspects of your report which cannot be included in a text format.

Please overwrite this text when adding your comments to the authors.

1. The study aimed to identify difficulties experienced by shipyard workers due to orthopedic or musculoskeletal disorders. This objective does not completely reflect in the title "The relationship between back pain and work absence in shipyard workers". How about "Factors associated with the prevalence of back pain and work absence due to back pain in shipyard workers"?

A. Thank you for your comments. We agree that the original title did not accurately reflect the content of the paper. We would like to revise the title to “Factors associated with back pain and related work absence in shipyard workers.” Of course there may be other options if you do not like this one.

2. The authors investigated the prevalence of back, which included both lower and/or upper back. Thus, the authors should avoid using the word 'low back pain' for their results.

A. We revised “low back pain” on page 3, line 3 to “back pain.”

3. The abstract is quite lengthy. There is no information regarding statistics used and the results should be described based on statistical analysis, rather than simple description of the findings.
A. We added “using multinomial logistic regression analysis with SPSS” on page 2, line 21.

4. Information about mean age of participants under subheading 'subject' should be moved to the results section.

A. We moved the information about mean age of participants from page 2, line 5 to page 2, line 14.

5. The words 'incidence' and 'prevalence' are different. Please assure that the word 'incidence' has not been used inappropriately, e.g. Page 7 Line 23.

A. We revised “incidence” to “prevalence” on page3, line 17 and on page7, line23.

6. The title of Table 3 (i.e. the relationship between back pain and absence from work — lifestyle-related factors) does not reflect information presented in the table (i.e. factors associated with the prevalence of back pain and work absence due to back pain in shipyard workers). This comment also applies to Table 4-5.

A. We revised the titles of Tables 3–5.

Table 3: The relationship between back pain and absence from work — lifestyle-related factors

Factors associated with the prevalence of back pain and work absence in shipyard workers

Table 4. The relationship between back pain and absence from work — working environment

Factors associated with the prevalence of back pain and work absence in shipyard workers

Table 5. The relationship between back pain and absence from work — working posture

Factors associated with the prevalence of back pain and work absence in shipyard workers

Kay Cooper (Reviewer 2): Thank you for the opportunity to review the revised version of your manuscript.

Whilst you have responded to the comments made, some of the points are still unclear, as follows:

Reviewer 2

Point 3: The background still has nothing on e.g. global burden of disease study, which I find surprising for a study in this field. Also, the purpose of study has been altered since the original manuscript and as it's written now it doesn't entirely make sense and doesn't read as a research objective—was the purpose not to explore the prevalence of musculoskeletal disorders? The bit about medical examinations and advice on exercise regimes isn't referred to again in the manuscript…were they part of the study or not? This is very confusing for the reader.
A. We have inserted the relevant references. Research on the global burden of disease has demonstrated its association with back pain.


A. Thank you for your comments. Medical examinations and advice on exercise regimes were not part of the research objectives and the reference to them has been removed. Instead, we added “...and then to evaluate the factors associated with the prevalence of back pain and related work absence in shipyard workers on page 4, line 13.

Point 4: You have added a sentence to the methods but this really needs to also be discussed as a limitation, e.g. could any important variables have been omitted from the survey; difficulty of comparing to previous research due to different items on surveys etc.

A. We added the following to the Limitation section on page 13, line 5: “These 17 questions were developed by the authors, and their validity and reliability remain to be examined.”

Point 5: I think you may have misunderstood my point...I was not suggesting that you change to "effect". I was making the point that using the term "impact" suggests that you can attribute cause & effect from a cross-sectional study of this nature - which is not the case. You need to review this.

A. Thank you for your comments. We have revised the term “effect” on page 8, line 15 to “impact.”

Point 6: I can't see the original manuscript so can't actually see which sentence you have deleted I'm afraid.

A. The sentences that were removed from the original are as follows: (1-6)

1. Original page 6, line 1-10. “In terms of workplace environment, 60.1% of subjects often worked in noisy environments, 43.6% worked with fire, 31.9% worked on an unstable floor, 27.4% frequently worked outdoors, 18.9% worked in narrow spaces and 17.6% were often exposed to trembling, vibration, or impact.

Regarding working posture, 42.3% often worked in a standing posture, 39.9% often worked in a half-seated posture, 25.5% often worked in sitting posture, 17.3% often raised their hands above
their shoulders or extended their arms fully during work, 15.4% often worked in a seated posture, 14.9% often twisted their waists during work, 14.4% sometimes worked in a lying posture and 10.4% often bent forward at the waist to an extreme degree.”

2. Original page 9, line 4. “Regarding the relationship between pain of the back and lifestyle, we found that subjects who exercised for 30 minutes or more per day, two times per week, for one year or longer had a low risk of back pain, confirming the results of previous studies.”

3. Original page 9, line 23. ” Several previous studies also reported a causal relationship between smoking and lower back pain [9, 16, 21-23].”

4. Original page 10, line 12-14. “Based on these results, it is important to provide those with musculoskeletal disorders such as chronic lower back pain with instruction on smoking cessation and weight control [15, 19].”

5. Original page 12, line 14. “In addition, we plan to conduct further medical examinations and provide instruction on exercise regimens depending on the symptoms six months after the initial medical examinations to measure the effects of the training.”


Ethics approval and consent to participate

This study was approved by the institutional review board of Ehime University Graduate School of Medicine. (#1609016)

Consent for publication

Not applicable.

Availability of data and materials

The datasets generated and/or analysed during the current study are not publicly available due to not finish in our current study which include another analysis.”

Point 8: Links with Point 4 above and the need to discus the limitations of the tool

A. Similar to our response to Point 4 above, we added the following to the Limitation section: “These 17 questions were developed by the authors, and their validity and reliability remain to be examined.”

Point 10: As it's written the sentence you have added doesn't seem to make sense - what is it about interventions and responsibilities that you have considered? In what way? It also seems to be out of place in the limitation section, I would think it belongs in the discussion/conclusions
A. We apologize for the confusion. We added this section as requested by another reviewer.

In addition: There is now a statement that this was a "cross-sectional case-control study" which I do not think is accurate. What were the cases and controls?

A. As you pointed out, this was not an appropriate expression and we have revised it to read "cross-sectional study" on page 13, line 3.