Author’s response to reviews

Title: DETERMINANTS OF INTERNATIONAL VARIATION IN THE PREVALENCE OF DISABLING WRIST AND HAND PAIN

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Author’s response to reviews:

Thank you for your patience in finding reviewers for our paper, which I know was unusually difficult. Our response to their comments is set out below.

1- Distribution of the participants according to the countries could assist to predict the effect of race/country on results.

RESPONSE

Reference 5 gives a breakdown of the numbers of participants who completed the baseline survey by country and occupational group. Differences in the baseline prevalence of disabling wrist/hand pain by occupation and country have been reported previously in Reference 12. Figure 1 of the current paper shows the mean pain propensity index at baseline, and the prevalence of disabling wrist/hand pain at follow-up, again by country and occupational group. In the analysis of risk factors for disabling wrist/hand pain at follow-up, we wished to take out any effects of occupational group and country that were independent of the risk factors under consideration. Therefore, as we report in the subsection of the Methods on Statistical Analysis, “to account for possible clustering, we fitted a random intercept for each occupational group”.

Simon Otter (Reviewer 2): This is a very interesting article, which used a clearly described & well validated set of measures to collect data

Is there a simple diagram that illustrates the anatomical sites used for the "pain propensity index" that could be included for ease of understanding - or was this in previous publications?

RESPONSE

The diagrams that were used to specify anatomical sites were included in the baseline questionnaire. We have added a note in paragraph 2 of the Methods, that the questionnaire can be accessed as online supporting information to reference 5.

Do the authors feel the differing health & social care provisions from countries participating have an impact on their findings? This seemed to be alluded to in the penultimate paragraph of the discussion & may benefit from further consideration if the authors feel this could be a factor

RESPONSE

As we explain in paragraph 4 of the Methods:
“Also at baseline, the lead investigator for the study in each country provided information about various group-level variables that might be relevant to musculoskeletal pain and its impacts. These were: the unemployment rate in the community from which the occupational group came; whether it was necessary to pay for primary medical care; and the availability of: pay during sickness absence, financial support for ill-health retirement, social security for long-term unemployment, and compensation for work-related pain in the wrist/hand.”

In the subsection of the Methods on Statistical Analysis, we report:

“As well as examining personal risk factors, we fitted models to explore possible impacts of risk factors operating at occupational group-level. These included the variables on which lead investigators from each country had submitted information ….”

In paragraph 3 of the Results we note:

“In contrast, no statistically significant associations were observed with any of the group-level risk factors when they were examined in further models that adjusted for individual-level risk factors (data available on request).”

In the absence of any statistically significant associations with measures of health and social care provisions by country, we do not think any additional discussion is needed.