Author's response to reviews

Title: A cross sectional study between the prevalence of chronic pain and academic pressure in adolescents in China (Shanghai)

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Version: 6
Date: 5 May 2015

Author's response to reviews: see over
Editor's comment:

Two reviewers have now accessed your revised manuscript and find it considerably improved. They still have some suggestions for improvements which I recommend that you consider.

1. One point that was also raised in previous reviews is use of the word "chronic". Reading how this was defined I still think this group could be better described using another term; for instance "frequent low back pain". Most importantly because some may have answered "often" to the back pain question even when the first occurrence of pain was within the last few weeks.

Author's Response:

Thank you for your suggestion, but here we use "chronic pain" as the description of this kind of unpleasant feeling only with the purpose to distinguish it with the "acute pain", which may be caused by some damaging factors. In my opinion, if we use this term “frequent pain”, it may become more difficult for us to separate the pain which has a specific reason from the hard-to-explain pain which is actually our research target. Meanwhile, although some students may have answered "often" to the back pain question even when the first occurrence of pain was within the last few weeks, this kind of unpleasant feeling might have actually been disturbing him/her for a long time, in this situation, we still put it into the “chronic pain” category in our study. As a result, I still hold this view that “chronic pain” may be more suitable here.

2. The discussion paragraph is very long and you may consider shortening it. One possibility is to reduce the summary given under the heading Evaluation.

Author’s response:

Gratefully accept the revision suggestion.

3. In the section Evaluation it is stated that it is difficult to establish causal relations in cross-sectional studies. Please alter this to make it clear that causal relationships cannot be established from cross-sectional studies. My point being that it is not just difficult - it is impossible.

Author’s response:

Gratefully accept the revision suggestion.
4. Because of the cross-sectional design and the low response rate it is not possible to draw firm conclusions about the impact of academic pressure on pain and it is important that this is clear from the conclusion. I suggest that your conclusion should state that the study results SUGGEST (or IMPLY) that there is a relation between academic pressure and pain, and that this needs to be explored in more depth in future studies.

Author’s response:
Gratefully accept the revision suggestion.

Associate Editor,
Alice Kongsted

Reviewer’s report
Title: A cross sectional study between the prevalence of chronic pain and academic pressure in adolescents in China (Shanghai)
Version: 5
Date: 15 April 2015
Reviewer: Viveca Östberg
Reviewer’s report: The revision of the manuscript has addressed and taken care of the majority of comments. Additional improvements could be made with regard to the points raised below (enumerated in accordance with the original comments):

Minor essential revisions
1. The ms now includes a more thorough description of how chronic pain is defined and measured in this study. I think, however, that the description could be written more pedagogically (second paragraph on page 4), and I am still not convinced that chronic pain is the best label, but at least it is more clearly stated how it has been operationalized in this study. One inconsistency is that the definition states that chronic pain occurs at least 3 times in three months (i.e. “this bad situation happened at least 3 times in 3 months”, page 4) while that response option “occasionally/1-3 times per months” is treated as no chronic pain. Perhaps the definition should be “more than 3 times in 3 months”?

Author’s response:
1. The definition of the chronic pain was altered as “this bad situation happened more than 3 times in one month”
2. When it comes to “pedagogically” writing, I have to say that all we consider is how to write an essay that fits the criteria of the scientific article, so we just describe what we have done instead. If essential, we will be appreciated for your recommendations.

2. I note that there are still inconsistencies between tables that are not due to lack of significant associations. In Tables 4 and 4 (a and b?), relationships with other students (Q2) and “What is your rank in school?” (Q6) are not included in the descriptive table (Table 2).

**Author’s response:**

The descriptive information was added in Table 2.

3. The description of the sample has been improved (p. 5). A remaining question concerns the “152 uncompleted questionnaires”. If this is the difference between the “retrieved” and the “valid” questionnaires the number should be 262 (2849-2587). I also wonder if “Analysis of the remaining 147 uncompleted…” should be 146 (in order to sum up to 152).

**Author’s response:**

All questionnaires were classified according to principles described below:

3000 questionnaires were distributed while 2849 were collected. After the quality check, 262 were excluded (2587 remained: 2849-262). For the purpose of finding out if there are some unknown reason why those students did not complete questionnaires, the data of those 262 questionnaires were also analyzed. 110 of them were abandoned because they were far from complete (152 remained: 262-110). However, 5 of 152 were answered too casually and we also abandoned them. At last, 147 of 152 were used for comparison and were found no significant difference.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician. Declaration of competing interests: I declare that I have no competing interests
Reviewer's report

Title: A cross sectional study between the prevalence of chronic pain and academic pressure in adolescents in China (Shanghai)
Version: 5 Date: 27 April 2015
Reviewer: Ellen Aartun
Reviewer's report:
Major Compulsory Revisions
1. A range of reliability measures are reported at line 144 and 145. Please provide which reliability measure you have used, e.g. Kappa.

Author's response:
A test-retest reliability were used, measure of Kappa were used for the range for reliability. So it has been revised gratefully

2. The statistical method used in the study should be clearer at line 169-172. Do you mean that you have used a backward stepwise regression procedure when you write “The threshold for variant removal was set at 0.10”?

Author’s response:
The candidate risk factors were examined using a multivariate logistic regression model that included all the candidate risk factors. Backward stepwise regression procedure was used and the threshold for variant removal was set at 0.10. So it has been revised gratefully

3. From the cross-sectional design of the study, it can be concluded that Tables 1, 4 and 5 show the association between, e.g., demographic factors and chronic pain and not the risk. The titles of these tables should therefore be reworded.

Author’s response:
The titles of these tables have been reworded gratefully.

4. In the footnotes in Tables 1, 4 and 5 it becomes clear that you have adjusted for sex and family history of chronic pain. Please provide a description of this in the method section. In Table, the odds ratios of gender is reported, but in the footnotes you have written that you have adjusted for sex and family history of chronic pain. Please correct the footnote.

Author’s response:
1. All footnotes has been corrected.
2. As for the sex and family history control, I think that maybe the method section do not need to change. The details will be described below.
   This kind of footnotes originated from a little mistake. In the early stage of
the study, only part of the data was collected (642 completed questionnaires). During the processing, the gender variant was sometimes excluded due to the small amount of statistics, so Enter regression procedures were used only to keep this variant in. That is so-called “gender control”. But finally when all questionnaires were collected and all data was included, the gender variant was kept in the equation and no longer excluded. But the footnote was neglected and remained unchanged. As for Family background section, it was used to another statistic processing and not included in this study. Sorry about that mistake and thank you for finding it out.

5. It should become clear from Tables 1, 4 and 5 that you have included all variables in the model, both direct and indirect indicators.

Author’s response:
Gratefully accept the revision suggestion.

Minor Essential Revisions
1. A little comment to the statement “By investigating the current academic pressure situation in Chinese adolescents and analyzing the relationships between various learning burden-related risk factors and different types of chronic pain, this study has provided a reference for improving adolescent health.” Adolescents with high academic pressure could probably be a target group for prevention initiatives, but this study has not provided that adolescent health has been improved. Therefore, the sentence should be moderated. In addition, I do not think that this statement belongs to the introduction.

Author’s response:
Gratefully accept the revision suggestion.

2. The design of the study is probably meant to be described at line 110 in the method section. Therefore, the sentence should be changed to “…cross-sectional study was conducted instead”.

Author’s response:
Gratefully accept the revision suggestion.

3. Is the cross-sectional design a true limitation of the study? I think cross-sectional studies have its rights when you want to explore associations as you want in this study. In the next step, you can perform longitudinal studies to explore the causal relationship.

Author’s response:
Thanks for your suggestion. We think that cross-sectional study is rather easy to conduct and to explore potential relationships than the cohort study,
which may be hard to follow. But the latter could make the correlation more clear and convincible. So the further research has been under conducting.

4. Please use the correct reference style for BMC Musculoskeletal Disorders. The citation should be in brackets and as superscript.

**Author’s response:**
Gratefully accept the revision suggestion.

**Discretionary Revisions**
1. Please see Instructions for authors; if you want to keep the “Evaluation” section, it should have a minor subheading instead of a major heading as in Methods and Results. Please consider to include the Evaluation section in the discussion.

**Author’s response:**
Gratefully accept the revision suggestion, and we have included the Evaluation section in the Discussion section.

Level of interest: An article of importance in its field
Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests: I declare that I have no competing interests.