Author’s response to reviews

Title: A Reversed Gender Pattern? A Meta-Analysis of Gender Differences in the Prevalence of Non-Suicidal Self-Injurious Behaviour Among Chinese Adolescents

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Attached please find the revised article “A Reversed Gender Pattern? A Meta-Analysis of Gender Differences in the Prevalence of Non-Suicidal Self-Injurious Behaviour Among Chinese Adolescents” (word count: 3577; tables 2; figures 1; references 31) as well as responses to the anonymous reviewer. The paper was carefully revised according to all the constructive comments and suggestions of the two reviewers. As a result of these changes, page numbers of the paper may now be a little bit different from those in the original version.

Thank you for your consideration. I look forward to hearing from you.

Sincerely

Xueyan Yang*, PhD, Institute for Population and Development Studies, School of Public Policy and Administration, Xi’an Jiaotong University, #28, Xianning Xi Road, Xi’an, Shaanxi Province
Thank you for your valuable comments about our paper. We have revised it to incorporate your constructive comments and suggestions. Below are the details of the revisions.

Reviewer #1

BMC Public Health -PUBH-D-16-03090R1

Reviewer 1: This paper reported a meta-analysis of the gender differences in non-suicidal self-injury (NSSI) in Chinese community samples. The results showed that among middle schoolers girls were more likely to engage in NSSI than boys, whereas the reverse was true among college age samples. Although these findings are interesting, there are several areas where the paper could be strengthened to allow for it to have a broader impact on the field.

A major limitation to the paper, is its purely descriptive nature. The authors do not provide clear hypotheses for the change in gender differences in NSSI based on age, let alone test them. In
this discussion, the authors list several possible factors (e.g., Confucianism, social structure...). Would there be any way for the authors to code some of these aspects based on region where the study was conducted. For example, if some regions of China had stronger affiliations to Confucianism than others, might you see different gender differences in studies conducted in those regions compared to others? Economy might also be able to be broken up this way. I would like the authors to be more creative and attempt to explain some of their findings with meta-analysis if possible. This type of analysis, or at least interpretation, of why the gender difference in NSSI changes as middle schoolers get older, might help us understand something about NSSI more generally.

Response:

We agree with you; therefore, we tried to extract the age data for the gendered NSSI prevalence and to use the areas as very important moderator variables for our analysis. However, the available data were very limited, and we did not obtain enough information about the age of the samples by gender, although we could still cite an article that provided the age information by gender for the NSSI prevalence for discussion. In China, rural or urban areas commonly have a different gender culture and level of economic development, and the Hong Kong area is different from other urban areas of mainland China. Therefore, we separated the studies among middle school students into three groups: rural areas, urban areas, and Hong Kong. As such, we used the subgroup analysis method to test the relationship between areas and the gender difference in NSSI prevalence among middle school students. However, this method could be applied to only the middle school students, because it was difficult to differentiate colleges and hospitals as rural or urban due to the very limited available data from the existing research. Please find this information in the revised article.

Early in the paper, the authors summarize gender differences in Western samples. The authors fail to cite a meta-analysis on this topic, which may be informative for this paper (Bresin & Schoenleber, 2014). In addition to providing a point-estimate to compare to, this meta-analysis conducts moderator analyses, which may be useful for understanding the results of this paper (as noted above).

Response:

We agree. Therefore, we added this article as an important reference to our reference list, and tried our best to use the subgroup analysis method to reflect the moderator roles of the areas and sample types. Please find this information in the revised article.
Along these lines, I was surprised that the authors excluded inpatient samples. Bresin & Schoenleber (2014) found that the effect (women > men) was larger in inpatient samples. Including this could provide some more context for the other results.

Response:

We agree with you. As such, we included a clinical sample in our analysis. However, contrary to the result from Bresin and Schoenleber’s (2014) study, we found that there is no significant gender difference in NSSI prevalence in the clinical samples.

I would also like more detail about the analyses. It was unclear to me whether the odds ratio of percent was used in the meta-analysis. To make things more consistent with Bresin & Schoenleber (2014), it would make more sense for it to be odds ratio. It was also confused about how age was looked at. I would think that you would want to look at age as a moderator, by first comparing the effect size across all ages, then adding age as a moderator. Moreover, I would think that treating age as continuous might give more power and allow the authors to look at what age the flip happens (which may coincide with something like puberty or change in school, etc.). This might also allow the authors to keep the studies that had a mix of middle school and high school because the overall sample age could be used.

Response:

We agree; therefore, we rewrote whole parts of the methods section. Please find the amended sections in the revised article.

A minor point, the authors say, "In summary, this is the first study to address the reversed gender pattern for prevalence of NSSI behaviour among Chinese adolescents." It seems like it would be more accurate to say that "this is the first meta-analysis to address…. " because the primary studies you used also looked at gender patterns.

Response:

We agree with you. As such, we have revised the text according to your suggestion. Please find the new text in the revised article on page 14.
Memorandum

To: Reviewer #2 (Paragraphs in bold are your original comments.)

Date: 16 February 2017

Thank you for your valuable comments about our paper. We have revised it to incorporate your constructive comments and suggestions. Below are the details of the revisions.

Reviewer #2
BMC Public Health -PUBH-D-16-03090R1

Reviewer 2: Thank you for writing on this interesting topic.

Abstract

Short and some language issues.

Response:

We have had this article copy-edited by a native English-speaking editor from the Editage Company.

Background

Literature review and meta-analysis.

Ok in why to conduct in.
Methods

Second-hand data. Is this an usual term? A meta-analyses could be explained better, it is not a systematic review.

Response:

As we are not sure about this term, we have deleted it to avoid any confusion. We rewrote the section of the methods according to another reviewer’s suggestion. Please find the new text in the revised article.

Statistics

I suppose a random effect model is appropriate to evaluate the gender differences, but I am not competent of evaluating the statistics in this literature review.

Response:

We rewrote part of the methods section according to another reviewer’s suggestions. Please find the amended text in the revised article.

The topics are of interest, in that the phenomena with reversed gender pattern in suicide are only found in China and a few other places, and to see if this is the same regarding NSSI. There could be some more reflection on theories of gender, in particular the data and theories behind the findings that girls early puberting impact the prevalence data among middle school students

Response:

We rewrote whole sections of the discussion and conclusion and tried to explain the gender difference in the NSSI prevalence among Chinese adolescents with reference to cultural factors.
Discussion

About the fact that also in China, they find more prevalence among middle school girls, but that the reversed gender pattern was true for older adolescents (boys more nssi than girls in contrast to a lot of studies in the rest of the world) is highly interesting from a Cultural perspective.

Response:

We agree with you. As such, we included the areas as a variable in the analysis to reflect the relationship between culture and the gender difference in NSSI prevalence. Please find the new information in the revised article.