Reviewer's report

Title: Unintentional Childhood Injury: A Controlled Comparison of Behavioral Characteristics

Version: 2 Date: 2 June 2015

Reviewer: Mariana Brussoni

Reviewer's report:

This study examined psychological behavioral characteristics that were associated with experiencing an unintentional injury in the previous year among children aged 6 to 11 years in China. This study adds to the literature indicating increased injury risk for children with behavioural disorders, and presents some interesting gender differences. There was considerable necessary detail missing from the methods that hampered the ability to understand how the study was performed and the study quality. Further comments and suggestions for the authors are listed below:

Major Compulsory:

1. Lines 123-125 – what ages/grades were sampled? We don’t find out until page 9 that the authors sampled ages 6-11 years. This should be in the abstract and at this point of the manuscript.

2. Lines 127-131 – the criteria for what qualified as an injury were very broad and included what could be considered minor injuries (e.g., those receiving medical assistance from an adult). There are 2 potential issues with this approach. First, previous research has indicated that retrospective research on previous injury can be hampered by memory, particularly for minor injuries. Second, minor injuries are so common that it is possible that behavioural characteristics could be quite different than those for more significant injuries.

3. What was the response rate from the original 725 children that were invited to fill out the questionnaire? Were there any data available on the non-respondents so that they could be compared to respondents? How many children were available to assign to the control group? Did the control group consist of every child whose parents filled out the questionnaire that did not have an injury or was there some sort of random or paired assignment done?

Minor Essential:

4. Line 97 - The field of injury prevention avoids use of the word “accident” because it can imply lack of preventability. Instead, the authors could use the term “motor vehicle crash”.

5. Lines 113-114, please clarify what is meant by “troubled temperament” and by “study-related stress”

6. Lines 108-111 – there are no environmental factors provided in this list.

7. Lines 117-120 – the fact that school children are making more independent
decisions doesn’t necessarily mean they are exposed to more risk than toddlers. Furthermore, the reference (#19) provided in support of this statement is not an editorial, not a primary research article (by the way, fix reference #19 - use surnames instead of first names). An important aspect of why toddlers tend to get injured at home, where as school children are more likely to get injured outdoors relates to exposure – where children of different ages spend their time.

8. The standard deviation for the age of the injured boys was very small, particularly compared to the other groups. Would this influence the findings at all?

9. What was the denominator used to calculate the injury incidence rate reported in line 203? Was it the entire sample that filled out the questionnaires?

10. The data on parents’ education levels are curious. For boys, the injured group appears to have parents that are more educated than the control group, whereas the opposite is the case for girls. While the latter result is largely in line with the literature, the former is not. Do the authors have any thoughts on this issue? Out of complete speculation, could it be related to the one child policy in China that has influenced the gender distribution?

11. Regarding the chi-square tests done in Table 1, there is limited utility to the significance testing performed. It is obvious, for example, that there are differences between categories in mother’s education level. But sub-analyses were not conducted to see whether, for example, there is a significant difference within or between groups.

12. Table 1 – What does the variable “caregiver for child” denote?

13. Line 245-7 – I don’t understand the logic behind this sentence. In the current study, boys were getting injured at home, so presumably being outdoors wouldn’t necessarily be more dangerous.

14. Lines 248-250 – as mentioned in comment #10 above, this seemed to apply to boys, and not girls.

15. Lines 252-255 – is there evidence that working parents leave children unsupervised?

16. Line 266-268 – please clarify what were unstable emotional responses and what constituted environments with risk?

17. Lines 271-274 – please elaborate on what behaviours would be punished in boys and not girls. Typical research from Western settings indicate that behaviours that are associated with greater likelihood of injury tend to be rewarded in boys and discouraged in girls, so it is intriguing to think how this might be different in China.

18. Some editorial work needs to be done. Page 5, line 95 – delete second “injury” in the sentence. Line 109 – change “socioeconomically” to “socioeconomic”. Lines 125 & 145 – data should be plural, not singular. Delete line 141. And so on…

**Level of interest:** An article of importance in its field
Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare I have no competing interests