**Reviewer’s report**

**Title:** Perceived social risk in medical decision-making for physical child abuse: a mixed methods study

**Version:** 0  **Date:** 14 Jul 2017

**Reviewer:** Susan B Torrey

**Reviewer's report:**

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.

**Summary**

This prospective evaluation of physical child abuse assessments by a national group of experts uses mixed methods to identify social and non-social cues that influence practitioners' perception of child abuse risk as well as the effect that their risk perceptions has on the certainty of their diagnoses. For the qualitative intervention, standardized data collection forms were analyzed for the presence of pre-defined social and non-social cues. The quantitative assessment involved practitioners' assessments of perceived socioeconomic status (SES), risk for abuse and their certainty of diagnosis, all measured by sliding scales from 0-100. In addition, a novel method (reversed social risk) was used to describe the association between perceived risk and certainty of diagnosis. The results confirm the association between perceived SES and risk for child abuse using actual clinical cases rather than scenarios. The study also uses provider-specific information, in addition to insurance information, to provide more detail about perceptions of SES for the population that is publically insured.

**Comments**

Overall, this is an important and well-designed study. However, the following specific clarifications/revisions/explanations to the methods section should be added before publication:

1. Describe how the sliding scales were developed. Were they validated in any way?

2. Describe how the social and non-social cues were chosen.
If you cannot add these details, then please address them as limitations in the conclusions

Specific comments

Methods

Study context

Page 7, line 7: Describe the injury types that you chose here and indicate why. Were they chosen a priori?

Study procedure

Page 8, line 2: Were consultations submitted prospectively?

Page 8, line 3: Please provide more information about how cases were selected. Were all of the cases submitted and then those chosen to study by PIs using randomly generated dates?

Child race, sex and perceived ethnicity

Page 8, line 9: Since all of the scales that you use are the key components of your quantitative analysis, you should describe how they were developed and validated. Why 100 points? There may be a good reason but it sounds like a lot of choices so it is hard to know how consistently each CAP applied the scale across all of their cases.

Social risk perception

Page 8, line 14: Were only the risk indicators identified a priori or were all three identified before hand? If the latter, change to "...used to extract three categories of elements identified a priori...". As written, one could conclude that only the risk indicators were identified a priori.

Page 8, line 20: Reference Table 1 here rather than in results. You should describe how the social and non-social cues were chosen. Also were the choices validated in any way (such as comparing with a qualitative analysis of a selected group of charts for other subspecialty consultation or primary care)? As an example, "immunizations up to date" is a standard entry in many pediatric records that may be an indicator of access to care as well as parents' attentiveness to health maintenance.
Reversed cases

Page 9, line 3: This is an interesting idea. Has it been used anywhere else? Is it validated? If so, please include some references. If not, you should include more information about how you came up with the idea.

Page 9, line 3: The first sentence is confusing. I don't think that the methodology that you describe "confirms" that perceived risk measures social risk or that perceived risk "measures" social risk. It does indicate associations.

Page 9, line 9: This is confusing. What is the qualitative case review? Were the social risk factors from the specific case replaced with opposite ones chosen from Table 1?

Page 9, line 10: How were CAPs chosen for the reverse cases? Randomly, I assume.

Analysis

Page 10, line 5: Can you use the same race categorization for Asian American children as for health professionals? If so, please provide a reference.

Results

Demographics

Page 11, line 8: You could compare the demographics of your study population to the demographics for the Ray Helfer Society and AAP section to identify possible selection bias.

Discussion

Page 14, line 1: So this confirms previous studies. You should state that. In addition, you could make some general statement here about what your study adds, then go into more detail below. That way, the reader will know right away why your study is important.

Page 14, line 22: I don't understand this reference. As I mentioned in the methods section, the idea of reversing the social elements seems innovative. If you can support your methodology, you could emphasize that here rather than quoting studies that seems to have little relevance.
Page 15, line 4: It is reasonable to consider cognitive error as one consideration. It is also important to consider CAP perception of the risk of missing the diagnosis of abuse versus the risk (understandably significant for the family) of a negative investigation. Sensitivity vs specificity.

Page 15, line 19: Could these interventions also help to balance sensitivity/specificity issues with the effect of bias?

Are the methods appropriate and well described?  
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?  
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?  
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?  
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable
Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.