Reviewer’s report

**Title:** USER TESTING OF AN ADAPTATION OF FISHBONE DIAGRAMS TO DEPICT RESULTS OF SYSTEMATIC REVIEWS

**Version:** 0  **Date:** 13 Jul 2017

**Reviewer:** Sean Harrison

**Reviewer's report:**

Overall, I enjoyed reading this paper. There is a problem with communication of results from systematic reviews, especially when there are multiple exposures and outcomes, and the more tools reviewers have to clarify their results, the better.

More testing of the diagrams (with other populations) would have been beneficial, and the results of user-testing may be biased due to the relative unfamiliarity with fishbone diagrams, but these points are both acknowledged in the paper. That the diagrams were seen to be less helpful than summary tables is disappointing, but the more options systematic reviews have to present data, the better, and they can judge what will be most useful for their review. I am happy with the methods used to assess the diagrams in the student population.

My major point to consider is that I would like to see a description of the process of creating the fishbone diagrams. What software was used, how long did it take (esp. relative to a table), how many outcomes can be measured before the fishbone becomes too tiny to view? I think these are important considerations for researchers who might want to use the diagrams.

Other than that, there are some small points that need changing:

Figure 1 appears black - by changing the settings I was able to view it, but will need addressing.

There is a missing parenthesis in the data analysis section - "To analyze qualitative data..."

In the anaemia fishbone, should it be "2 fewer to 40 more events" rather than "deaths" in Thromboembolic events?

The fishbones themselves need to be higher quality - I found the text blurry and difficult to read.

Why is there no summary table for breast cancer screening when there was one for anaemia? I guess because the students were only given the anaemia fishbone, but readers may wish to compare the fishbones and tables themselves.
Figure 4 should have a representation of the SD (box plot?) to give an idea of the variance of responses.

I would like to see the full results of how many people answered questions correctly in both groups (e.g. 10% answered 1 question correct in the fishbone group etc.).

Good luck!

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

Yes

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?
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