Reviewer’s report

Title: Selective citation in scientific literature on the human health effects of bisphenol A

Version: 0 Date: 28 Oct 2018

Reviewer: Rebecca Morgan

Reviewer’s report:

General:

This manuscript presents the results of a citation network analysis of published evidence of the association between exposure to Bisphenol A and human health outcomes. The authors present a unique approach to evaluate the potential for publication bias due to missing publications.

Major:

Paragraph 1 in the introduction section could use some reworking for clarity and direction of ideas to demonstrate the two sides of the debate about the health effects of BPA. This should be presented consistently through the manuscript. In the methods section, the authors again mention a hypothesis that BPA has an adverse effect on human health; however, the introduction does not seem to solidly support that hypothesis. Perhaps the authors can state in the introduction which hypothesis they are writing the manuscript from or if it matters for them to have a hypothesis in this study.

The methods section would benefit from additional transparency about the process undertaken. The goal being to allow other researchers to understand and replicate your process. Suggested additions would be to start with an explanation of a Citation network analysis and the specific components that this method should contain. Details are needed regarding the search strategy performed, such as date of final search and eligible years. Justification is needed as to why only Web of Science was searched. Screening methods would benefit from additional clarity. How many reviewers screened the titles? Why were titles screened separately from abstracts? Why were figures and tables screened with abstracts, separately from the full text? What were the components of the data extraction form? Consider including the form shell in an appendix or supplement.

How is the quality of the underlying citations factored into the equation of publication bias? Some citations were cited multiple times versus others that were not cited; however, there seem to be other confounding factors. It seems overstating at this point for the authors to conclude with "With these findings, we could conclude that the BPA literature seems to be mostly authority based, instead of evidence based.", when an evidence assessment is not included as part of the screening process.
Minor:

Protocol is not publicly available. Would be helpful to have available on an open-access website or as a supplementary file.

Page 2, ln 58: In vitro should be italicized

Page 3: Is there a citation for: "Scientific knowledge development to a large extent is driven by citations. Due to the large and growing number of scientific publications in the biomedical domain and the limitation of the maximum number of references in many journals, it is often not feasible to refer to all available relevant literature."? It seems like that would help with the credibility of the argument.

Page 3, ln 38: Can you expand on what is meant by citation bias research "showing different results"?

Page 4, ln 30-35: Consider moving to limitations section.

BPA, other than the first time, should consistently be written as an acronym throughout the manuscript.

Page 5: This may be more appropriate in the results section: "The study designs presented in this network were observational studies (experimental, cohort, cross-sectional and case-control studies), systematic reviews and narrative reviews."

Further exploration of "Mixed" statistical significance in the publication network may be more informative as the reader does not know the proportion of significant vs. non-significant results.

In the methods, please provide rationale for thresholds for Sample size, Number of affiliations, Journal impact factor, and Number of references. Tertiles is understandable, but what is a meaningful cut-off?

**Level of interest**

Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests

**Quality of written English**

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