Reviewer’s report

Title: Evaluations of the uptake and impact of the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) Statement and extensions: a scoping review

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Reviewer: Chris Winchester

Reviewer's report:

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Systematic Reviews
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6 November 2017

Dear Dr Fedorowicz,

Impact of the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) Statement and extensions: a scoping review

Many thanks for the opportunity to review this interesting article, which describes a systematic scoping review to understand the uptake and impact of the PRISMA guidelines and guideline extensions on the reporting of systematic reviews. The authors are to be congratulated for conducting this scoping review in preparation for an update to the PRISMA guidelines. The methodology used was appropriate, and I recommend the article for publication in Systematic Reviews. In the absence of clear guidelines for reporting scoping reviews (as the relevant PRISMA extension has not yet been published), I hope the following comments are helpful.

Overall, the focus of the review is on the impact of PRISMA on the reporting on systematic reviews, and it would be worth specifying this in title, if it does not become too wordy. The scope actually extends beyond impact to include uptake, albeit that this is partly answered in a separate search that is presented in the Introduction, and partly in the Results. It seems likely that systematic reviews included in the main study might address the proportion of systematic
reviews that cite the PRISMA statement. Accordingly, the authors might like to consider a first section of the Results on:

1. Uptake of PRISMA and its extensions
   (a) SCOPUS search of PRISMA citations
   (b) SRs of proportion of systematic reviews that cite PRISMA (and proportion of specific SR subtypes that cite PRISMA extensions)
   (c) SRs of journal requirements
   (d) Surveys of awareness among authors and editors

If the authors want to focus their article on the impact of PRISMA, then the second section could look at

2. Quality of reporting of systematic reviews (based on PRISMA adherence) before and after PRISMA and its extensions were published.
   (a) Adherence to individual items, before and after 2009
   (b) Predictors of adherence overall, including influence of journal endorsement (and, potentially, reference to PRISMA in the original article).

I realise that I may be suggesting that the scoping review becomes something that it is not, but my suggestions arise from a desire to move results provided in the Introduction into the Results sections, and to address the question that arose in my mind that, while PRISMA may be highly cited, what proportion of systematic reviews do not cite PRISMA? A low number would be an excellent marker of success.

My second major comment relates to the conclusion that reporting of many items is suboptimal. I wondered if the authors should claim more credit for PRISMA than they do, by pointing out that many items are well reported (12 items have > 80% adherence in the period from 2010), and only one item is poorly reported (< 50% adherence). It would be interesting to know what the authors conclude about the best and worst reported items. Is reporting correlated with the importance of the item, or the ease of reporting it? This insight would inform the guidelines update. Potentially, a low level of reporting could identify an item that the wider community believes is of low importance and could potentially be dropped. Alternatively, low adherence to a methodologically important item would indicate an important educational need.
Minor comments and suggestions:

Title:

Could read 'Uptake of the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) Statement and extensions, and impact on reporting quality: a scoping review'

Abstract:

Key words are required.

Background:

A reference for the first sentence would be helpful.

Citation data would ideally be moved to the Results.

Figure 1 makes it look as if citations of PRISMA are tailing off, when this is purely because 2017 data are for a part year. To address this, the authors could bring forward the 2017 x-axis label to 31 July (leaving the others at an implied 31 December); normalize the data as citations per year rather than cumulative; or remove the 2017 data from the line graph (possibly leaving it on as a data point). These options would also have implications for Figure 2.

Table 1 could easily be split into two, one for published guidelines and the other for those in development.

The authors should acknowledge that PRISMA extensions may be less highly cited than PRISMA itself because they are more restricted in scope, meaning that fewer studies are published each year to which they are applicable.

Methods

The authors did not pre-register their protocol because no suitable registry was available. Would they consider calling for such a registry in the Discussion?

As mentioned above, the scope could be expanded to look at how often PRISMA is referred to in articles reporting SRs.

When describing 'frequency of SRs adhering to the PRISMA Statement or extensions', the authors are actually describing rate. Please could they change the terminology to 'adherence of
SRs to the PRISMA statement' or 'SR adherence to PRISMA' or 'PRISMA adherence' throughout.

As described above, it would make sense to compare PRISMA adherence after 2009 with that before 2009, rather than the whole study period.

Results

The flow diagram includes on only one of the 4 types of evidence identified in the methods - is there room for 4 boxes on the bottom row of the diagram?

As above, 'data on the frequency of SRs that adhered to the PRISMA statement' could be simplified to 'data on PRISMA adherence'. Similarly in Table 2.

Table 2. Please could the authors clarify the relationship between the first 4 rows. Is the second row showing that 5 studies looked at a single PRISMA item/subset of items? Is the third row about standards derived from PRISMA other than the PRISMA extensions, or are the following rows subsets of that row? If the former is the case, then it would be helpful to move row 3 down the table.

Table 3. Can the final two rows be combined into 'English and other languages' or 'multiple languages including English' for simplicity?

The paragraph on page 13 could benefit from some introductory signposting, for example 'All 57 studies assessed adherence to individual PRISMA items, with relevant data provided as a personal communication for X studies'.

Figure 4. Can this be split into (a) before and after 2009 and (b) overall? Whereas 6 items had < 50% adherence in the overall analysis, this fell to only 1 item after publication of PRISMA, which looks like an achievement worth celebrating.

Can the key findings of the surveys and other studies be briefly described at the end of the Results section, even if the previous meta-research studies are referred to in the Discussion?

Discussion

Please reference the statement 'other [previous] efforts have been narrower in scope.'

The authors might want to acknowledge that non-English language SRs may be less likely to adhere to PRISMA, if their authors were not confident in English.
The authors mention studies looking at whether journals that recommend or encourage PRISMA have greater PRISMA adherence, and it would be helpful to provide an overview of these studies' results - possibly in the Results section (see above).

The authors argue that technology may help improve adherence to reporting guidelines, but could acknowledge that results from WebCONSORT show that this may not be straightforward (Hopewell S et al. BMC Med 2016;14:199). Mention of the role of EQUATOR in guidelines dissemination may be appropriate.

Finally, the easiest way to improve guidelines adherence may be to shorten the guidelines. In relation to a point raised earlier, are there any items that, with the benefit of experience, could be removed from the updated guidelines?

Yours sincerely,

Chris Winchester
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Honorary Associate, School of Medicine, Pharmacy and Health, Durham University

Disclosures
I am an employee and Director of Oxford PharmaGenesis, Oxford, UK, which provides HealthScience communication services to the global biopharmaceutical industry, and own shares in Oxford Pharma Genesis Holdings Ltd.

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