Reviewer’s report

Title: A modified Delphi study to identify the features of high quality measurement plans for healthcare improvement projects

Version: 0 Date: 26 Aug 2019

Reviewer: Andrea Marshall

Reviewer's report:

Thank you for the opportunity to review this manuscript which has sought to identify key features of QI measurement plans in healthcare. This is an important piece of work because of the high variability in how QI work is conducted worldwide. Standardisation and improving the quality of measurement in QI will not only help to strengthen the process and outcomes from the activity but will help mitigate the waste that occurs when these activities are poorly conducted. I hope that the feedback provided as part of the review process is helpful to the authors as they finalise their manuscript.

The authors provide a sound rationale for why this study is needed and the focus of this work addresses an important gap in the literature; the findings will be highly relevant in the context of clinical practice.

In the methods, the inclusion criteria are stipulated but it is not clear from where the panel of experts was drawn. Is this a worldwide sample or were the experts selected from the CLAHRC in which the core study team was employed?

In the third stage of the modified Delphi round how did the team mitigate against influence between participants. In the earlier stages anonymity would be preserved. Given the final questions being proposed &lt;75% agreement to either keep or remove, it could be assumed that there was significant diversity of opinion. How was influence managed particularly given only one panellist was included in stage 3?

In the methods it would be useful to provide a rationale for the selection of your sample size and describe how you approached the experts. How did the 19 participants completing the round 2 questionnaire differ from the 76 invited to originally participate? What is the rationale for only including one panellist in the stage 3 consensus meeting and how was this one panellist selected? One panellist would not seem to me to be sufficient to reflect the opinion of the broader group particularly given there were 34 questions without consensus at this stage. Given 80% of participants in stage 3 were members of the study team/authors this approach would require justification and further explanation (particularly as the recommendation was to remove 28 of the questions).

I note that the group discussed the high number of questions which were retained. Did you consider asking for a more definitive exploration of the question (eg. how important is it?) to further discriminate between questions participants nominated to retain?

Editorial corrections:

Please review Page 6, line 48 for sentence structure (...17 report and textbooks Grey literature)
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.

Unable to assess

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.

Not relevant to this manuscript

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

Acceptable

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