Reviewer’s report

Title: Use of health economic evaluation in the implementation and improvement science fields – A systematic literature review

Version: 0 Date: 30 Oct 2018

Reviewer: Dominique Cadilhac

Reviewer's report:

Dear authors this is an interesting paper but to me has limited relevance for a clinical and implementation science audience unless the studies are described in more detail. Economic evaluation and transparency of reporting has come a long way, so are your findings related to 'quality' based on the QHES really that surprising? More in depth discussion around the types of studies that were undertaken and what was being evaluated (i.e. type of implementation or improvement intervention) among the included studies is warranted to strengthen the paper.

I provide some comments below to improve the various sections of the article.

ABSTRACT - overall lacked important detail on the methods and results were not very informative.

* (line 13) - delete methodologies (which means to use a system of methods for a particular area of study) and insert 'methods' (i.e. procedures used for accomplishing the research outcome)

* (line 14) - delete reported and insert 'this'

* (line 15) - across the Agris etc - date range, keywords or eligibility for inclusion? Did you consider the ECOLIT database?

* (line 20) - inclusion criteria ??

* (line 24-28) - Comment: But this tells me nothing about what you found? Summary of setting, study type, countries where the research has been undertaken

* (line 30 - 31) - 'the overall quality of evidence has improved compared to earlier studies identified in earlier reviews' - remove from the abstract

* (line 29-35) - Comment: you could be briefer to expand methods and results
BACKGROUND
* (line 44) - 'improvement interventions' - Comment: from an economic perspective?
* (line 50) - 'focused' NOT focuses
* (line 56) - Insert 'the' after on - 'Depending on the service'
* (line 56) - delete 'structure and methodology' and insert 'methods' Comment: simplify
* (line 60) - insert comma after 'programme evaluation'
* (line 63) - delete localities and insert 'settings'
* (line 69) - Insert 'In' - e.g. In two earlier reviews
* (line 69) - delete 'examined'
* (line 70) - delete 'and' - insert 'were examined and the authors found'
* (line 71) - insert 'of' after 'cost-effectiveness'
* (line 72) - delete 'carried out, hence' - insert 'published and'
* (line 74 - 76) - Comment: describe a summary of where used? More relevant for clinical audiences

MATERIAL AND METHODS
* (line 80) - delete 'methodology was applied' - insert 'was undertaken'
* (line 81) - (date of most recently published evidence review) - comment: or their last end date searched? Ecolit?
* (line 87) - Insert 'to' - after 'conducted'
* (line 88) - delete 'evaluating' and insert 'whereby'
* (line 89) - insert after 'practice' - 'were evaluated,
* (line 90) - 'staffing inputs.' Comment: for the purpose of QI?
* (line 93) - what about also listing the conditions or applications these studies were undertaken in? What are the interventions tested e.g audit and feedback? Use of opinion leaders, etc
* (line 95) - 'public health' - Comment: ? hospital tertiary
SCREENING
* (line 103) - delete 'included' and insert after borderline 'for inclusion'
* (line 104) - Comment: other authors involved?
* (line 115) - insert (a) Implementation (b) Quality improvement - Comment line 117 - 119) are these related to a & b?
* (line 131) - delete 'Followed one of the' - insert 'The following study designs were acceptable/included:
* (line 139) - insert 'for' after 'To mitigate for'
* (line 143) - delete 'not included' - insert 'excluded'

DATA EXTRACTION
* (line 151) - delete 'methodology' - insert 'methods'
* (line 152) - delete 'used' insert 'included'
* (line 152) - insert 'the' after standard care practice),
* (line 153) - delete 'incremental'
* (line 156) - insert 'the' after 'effectiveness of'
* (line 156) - Comment: were these summarised in any way? Would be helpful

QUALITY APPRAISAL
* (line 159) - delete 'This gives' - Insert 'Each study is scored out of 100'
* (line 161) - delete 'instrument' insert 'framework, the studies were'
* (line 162) - Comment: 75 & over or over 75?
DESCRIPTIVE ANALYSIS

* (line 185) - insert 'the' after 'management or' - Comment: were some mixed? Setting or focus

* (line 194) - Inclusion of two literature reviews - Comment: how many studies were included in these papers? Did they include the same studies you found on individual reports?

* (line 197) - The Note listed in the middle of the page makes no sense to me. Please take a standard approach to defining acronyms e.g. define once and use or spell out each time

* (line 199) - 'interventions' not 'intervention'

* (line 202) - Insert Capital M. 'More broadly'

* (line 206) - insert 'the' after economic models

* (line 207) - add 'were excluded from this component'

* (line 207) - Comment: says three - above line 192 says two

* (line 209) - 74 - comment: very close to 75

* (line 220) - delete 'with' - insert 'whereby in'

* (line 220) - after 'possible biases' add 'were discussed'

* Comment: On the whole were there I x cost effective over current practice or ? describe the best uses.

DISCUSSION - Needs reworking. See my initial feedback above and further comments below.

* (line 230)- delete 'this review aimed' - replace with 'The aim of this review was to'

* (line 230 - 235) - Comment: this section seems to repeat the results and rather should summarise the main findings and then provide a more in-depth discussion in relation to the results in the context of other research and what the data tell us? Where are the major gaps e.g in community care or hospital care? Which interventions are more cost-effective than others and which ones appear to have no economic evidence (can you provide examples)?

* (line 261) - Comment: why would this be, can you discuss?

* (line 285) - Comment: the maturity of the field since the last reviews need to be highlighted. Economic evaluation and transparency of reporting has come a long way so is this really surprising?
Comment: applicable to all economic evaluations so unsure what this adds

CONCLUSION

Comment: but also aligned to maturity of the field and a greater focus on transparent reporting

Panel 1a.docx

I think this table could include more information about the included studies.

* Sample sizes for each study

* Describe the intervention

* Describe the main outcome (e.g. ICERs, summary of main conclusions)

Level of interest

Please indicate how interesting you found the manuscript:

An article of importance in its field

Quality of written English

Please indicate the quality of language in the manuscript:

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