Reviewer's report

Title: Clinical performance comparators in audit and feedback: a review of theory and evidence

Version: 0 Date: 25 Feb 2019

Reviewer: Stacey Guy

Reviewer's report:

Section/topic # Checklist item Reported on page #

TITLE
Title 1 Identify the report as a systematic review, meta-analysis, or both. Pg. 2 "review" & pg. 3 "secondary review"

ABSTRACT
Structured summary 2 Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number. Pg. 3. Background: lack of recommendations around A&F effectiveness. Objective: understand current & best practices in choice of performance comparator. Data sources: RCT review & qualitative review. Study eligibility: presence in 2 reviews. Participants: unclear. Interventions: QI that use A&F. Study appraisal: unclear. Results: benchmarks top comparator. Query: not clear about theory mechanism result. Recommend give equal weight to change theories. Conclusions: recommendations for interventions. Limitations of studies not review. No number as not a systematic review.

INTRODUCTION

Rationale 3 Describe the rationale for the review in the context of what is already known. Pg. 4. Theory informed research on how to best design & deliver A&F interventions.

Objectives 4 Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS). Pg. 4. Describe choices for delivering clinical performance comparators in published A&F interventions. Identify the associated mechanisms from theories and empirical studies that might have implications for effective A&F.

METHODS

Protocol and registration 5 Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number. None.

Eligibility criteria 6 Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale. Presumed to be use of clinical comparator in clinical practice change.
Information sources
Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched. Pg. 4. 2012 Cochrane Review; 2017 systematic review
1982-2011; 2006-2016. Cochrane Central Register of Controlled Trials, MEDLINE, EMBASE, CINAHL. Contact with experts. Supplemental theory-focused literature search.

Search
Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated. Pg. 5. Recommend including supplemental theory-focused literature search as this was 'new' and conducted by the authors.

Study selection
State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis). Pg. 4. No explanation for choice of 2012 Cochrane review inclusion; 2017 systematic review; or supplemental theory-focused literature search. Possibly based on advice from experts mentioned as being authors.

Data collection process
Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators. Pg. 5. Developed a data extraction sheet & guide. Guide & sheet piloted by 2 reviewers on 10 studies. Piloted again on 10 studies. Data independently extracted. Disagreements resolved through discussion. No mention of confirming data from investigators.

Theories identified from systematic review. Communication with experts. Literature search. Qualitative evaluation studies from a review being currently conducted. Why, how, or when a behaviour occurred.

The process, rationale for data sources, and description of the undertaking related to identifying mechanisms is less clear and can be confusing. I would not be able to replicate this part of the review.

Data items
List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made. Pg. 5. Comparators. Origin. Values delivered. Rationale for use.

Risk of bias in individual studies
Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis. Not clear. Did the Cochrane studies include bias assessment? And the authors chose to go with that? Was risk of bias conducted on qualitative evaluation studies? Or is this not relevant to qualitative methods?

Summary measures
State the principal summary measures (e.g., risk ratio, difference in means). Pg. 5. How were the results consolidated?

Synthesis of results
Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I2) for each meta-analysis. Pg. 5. Consolidated results were discussed, refined, and agreed with in an iterative process. Please clarify this process. What does refined mean in this context? i.e. what does 'refined' practically look like?
Section/topic  # Checklist item  Reported on page #

Risk of bias across studies  15 Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies). Not presented
Additional analyses  16 Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.

RESULTS

Study selection  17 Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.  Pg.10. Reviewed 146 randomised trials. And 42 qualitative studies.

Study characteristics  18 For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.  Pg. 6 onwards.
Comparators; theories

Risk of bias within studies  19 Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12). Not presented

Results of individual studies  20 For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.  Pg. 6.- 10. Comparators; theories.

Synthesis of results  21 Present results of each meta-analysis done, including confidence intervals and measures of consistency. Descriptions and frequency comparators used from interventions. Comparators mechanisms.
Risk of bias across studies  22 Present results of any assessment of risk of bias across studies (see Item 15). Not provided

Additional analysis  23 Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).

DISCUSSION

Summary of evidence  24 Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers). Suggest authors discuss barriers to using audit and feedback for the purpose of clinical care improvement.

Pg. 11. Recommendations when choosing comparators.

Limitations  25 Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).  Pg. 13. Limited to research setting only. Quality of reporting. Lack of consistency to terminology. Performance
comparators at an aggregated level. Did not explore influence of way comparators displayed or represented in feedback messages. Meta-regression would be under powered.

Conclusions 26 Provide a general interpretation of the results in the context of other evidence, and implications for future research. Pg. 14. Need to deliberately consider mechanisms of comparators and justification for their choice.

FUNDING

Funding 27 Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review. Pg. 14. Under "funding" not applicable has been selected. Under "acknowledgements" funding sources are reported.

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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
Please indicate the quality of language in the manuscript:

Acceptable
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