PROJECT TITLE: Understanding methods to synthesise evidence on the implementation of health interventions - a systematic scoping review	
Project team:	Jo Thompson Coon Becky Whear Becca Abbott Morwenna Rogers Alison Bethel Ken Stein
Other contributors:	Rob Anderson Mark Pearson Iain Lang Bridie Kent
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Correspondence	Jo Thompson Coon

PROJECT TITLE

Understanding the methods used to synthesise evidence on the implementation of health interventions: a systematic scoping review

1.1 Background

Various definitions of 'implementation science' have been proposed but most agree that it is the study of methods to promote the integration of research findings and evidence into healthcare policy and practice. One of the aims of implementation science and related research are to investigate and address issues (e.g. behavioural, economic, management etc.) that may prevent or slow the effective implementation of evidence.

The methods of systematic review and evidence syntheses are well recognised for providing robust and transparent summaries of the current state of the evidence. It seems reasonable therefore, that the gathering together of primary studies of implementation strategies to identify shared messages would be helpful in understanding the mechanisms underlying successful and unsuccessful implementation strategies. A wealth of different methods are developing to address these issues including systematic review of process evaluations, realist synthesis, qualitative syntheses of barriers and facilitators of implementation and the consideration of determinants of behaviour change.

1.2 Purpose

The purpose of this review is to provide an overview of the characteristics and methods being used to synthesise the evidence on the implementation of health interventions, and to propose recommendations for advancing the approach and enhancing the consistency with which they are conducted and reported.

The four specific objectives for this scoping review are to:

- Conduct a systematic search of the published and grey literature for syntheses of the implementation of health interventions,
- Map out the characteristics of identified syntheses,
- Examine reported challenges of synthesising evidence of the implementation of health interventions and
- Propose recommendations for enhancing the consistency with which reviews of implementation studies are conducted and reported.

1.3   Methods

The method for this review was based on the framework outlined by Arksey and O'Malley (ref), the additional recommendations made by Levac et al (ref), the Joanna Briggs Institute guidance on scoping reviews (ref). The review will include the following five phases:

- Identifying the research question,
- Identifying relevant studies,
- Study selection,
- Charting the data and
- Collating, summarising and reporting the results.

1.3.1   Identifying the research questions

1. What are the characteristics and methods used to synthesise the evidence on the implementation of health interventions?

2. What are the challenges of synthesising evidence on the implementation of health interventions?

1.3.2   Identifying relevant studies

A comprehensive search syntax using MeSH and free-text terms will be developed by an Information Specialist in consultation with the review team. This will be developed for Medline and adapted as appropriate for the other databases. The following electronic databases will be searched: Medline, EMBASE, HMIC, CDSR, Cochrane Methods Studies, DARE and CINAHL.

The search strategy will also include:

- The bibliographies of included studies will be scrutinised for relevant articles,

- Hand searching of key journals if identified as prominent in the search,

- Forward citation chasing of included papers,

- Checking for ongoing research through PROSPERO,

- Searching the KT+ database.

Search strategy

The WhatisKT wiki and publications arising from it (e.g. McKibbon 2013) will be used to inform search terms for implementation and knowledge transfer. The search strategy will be constructed iteratively using a mixture of MeSH and free text words. The master search strategy will be developed in Medline and adapted as appropriate for other databases. A date limit of 2000 and onwards will be applied to reflect the lack of relevant reviews identified prior to this date.

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1.3.3 Study selection

Once identified the details of potentially relevant literature will be uploaded to EndNote. The abstracts and titles will be screened for relevance by two reviewers, who will classify each paper as potentially include or exclude. Reviewers will meet to discuss inclusion and exclusion decisions after an initial period of screening to check consistency. Further discussion will take place throughout the period of study selection, if deemed necessary.

Full text copies of potentially relevant studies will be obtained. The retrieved articles will be assessed for inclusion by two reviewers independently, using the pre-specified inclusion/exclusion criteria. Again, reviewers will meet to discuss inclusion and exclusion decisions after an initial period of screening to check consistency and further discussion will ensue if necessary.

At all stages, discrepancies will be resolved by discussion, with involvement of a third reviewer if necessary. All duplicate papers will be double checked and excluded.

Inclusion criteria

Systematic reviews and evidence syntheses of quantitative and qualitative data where the aim is to synthesise information on the implementation of health interventions. The interventions within included systematic reviews may be described as:

    i)   Implementation strategies

    ii)   Knowledge translation strategies

    iii)   Barriers and facilitators of implementation

    iv)   Process evaluations

    v)   Improvement strategies

Systematic reviews and evidence synthesis will only be included if they have explicit, predefined and reproducible methods.

Quality assessment strategy

As this is a scoping review, no formal assessment of methodological quality will be performed.

1.3.4 Charting the data

A bespoke data extraction tool will be developed collaboratively by the review team in Excel. The tool will be piloted, by two independent reviewers, on the first ten studies to ensure that the approach to data charting is consistent and the extraction tool will refined as necessary. Data from subsequent included papers will be extracted by one reviewer and a sample independently checked by another reviewer. Discrepancies will be resolved by discussion, with the involvement

of a third reviewer if necessary.   Discussion between reviewers will be ongoing throughout the data charting process to ensure that all relevant data that may address the research questions is extracted.

For each study, details about the methods used in the review will be extracted including: author, year of publication, journal, health setting, country, broad topic of review, number and type of included studies, method of assessing bias of included studies, method used to describe implementation strategies, purpose of the review (i.e. how were the findings used by the author (e.g. to inform a framework / theory, to provide recommendations for future practice, to provide recommendations for future research etc.)), stakeholder involvement, description of challenges of conducting the review. As this is an exploratory review, this list will be expanded as appropriate to best answer the stated research questions; all included reviews will be subject to the same interrogation.

1.3.5 Collating, summarising and reporting the results

Data will be collated and summarised using tables and charts and the findings reported descriptively. The findings will be discussed as they related to the study purpose with implications for future research, practice and policy highlighted where possible.