

Defining your question for finding qualitative research: SPIDER tool

A summary of

Cooke, A., Smith, D. & Booth, A. (2012). Beyond PICO: the SPIDER tool for qualitative evidence synthesis. *Qualitative Health Research*, 22(1435). doi: 10.1177/1049732312452938.



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Categories:

Tool, Define

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Tool

Relevance For Public Health

The SPIDER tool may assist public health professionals in effectively searching for qualitative and mixed-methods research. The SPIDER tool can be used as a structure for the literature search strategy in synthesizing research evidence on the experiences of individuals and communities on an issue, together with quantitative research on intervention effectiveness, to understand how a public health intervention may be received and accessed in your community.

Description

Developing a question is a critical step to effectively searching for research evidence. While the PICO (Population, Intervention, Comparison, Outcome) tool has been a fundamental tool for evidence-based practice and systematic reviews, searching qualitative research is more problematic. The [SPIDER tool](#), designed using the [PICO tool](#) as a starting point, has been created to develop effective search strategies of qualitative and mixed-methods research.

Effectively searching for research evidence is a key prerequisite for synthesizing evidence to answer practice-based questions. [NCCMT's Search Pyramids](#) have been designed to help public health professionals quickly and efficiently search for research evidence ([click here](#) for more information). The Search Pyramids focus primarily on synthesized forms of quantitative research evidence, such as systematic reviews, although they could also be used to search for qualitative research. To practise searching, see [NCCMT's Searching for Research Evidence in Public Health online module](#).

The systematic review process in qualitative research is known as meta-synthesis, which uses an explicit and systematic method to find, interpret and analyze data from many qualitative studies ([Rice, 2008](#)). To learn more about synthesizing qualitative research to increase understanding on a health issue, and how this synthesis can be used with quantitative research, see [Noyes and colleagues \(2011\)](#).

Implementing the Tool

Who is Involved?

Anyone interested in searching qualitative and mixed-methods research evidence would benefit from the SPIDER tool.

Steps for Using Tool

The SPIDER tool was developed by adapting the PICO tool as follows:

- (S) Sample: smaller samples are used in qualitative research, where findings are not intended to be generalized to the general population.
- (PI) Phenomenon of Interest: qualitative research examines how and why certain experiences, behaviours and decisions are occurring (in contrast to effectiveness of an intervention).
- (D) Design: the study design influences the robustness of the study analysis and findings.
- (E) Evaluation: evaluation outcomes may include more subjective outcomes (such as views, attitudes, etc.).
- (R) Research type: qualitative, quantitative and mixed-methods research could be searched for.

These summaries are written by the [NCCMT](#) to condense and to provide an overview of the resources listed in the [Registry of Methods and Tools](#) and to give suggestions for their use in a public health context. For more information on individual methods and tools included in the review, please consult the authors/developers of the original resources.

Evaluation and Measurement Characteristics

Evaluation



Has been evaluated.

Initial testing of the SPIDER tool has been conducted by performing two systematic literature searches and comparing the search results using the SPIDER and PICO tools. The effectiveness of the SPIDER tool was assessed by:

- yield of search results (how many articles were retrieved); and
- relevance of articles to the research question.

The authors used a search question that is relevant to several disciplines for both clinical and research domains (i.e., What are young parents' experiences of attending antenatal education?). Three databases were searched (CINAHL, MEDLINE, Embase). Searches were conducted independently by two authors, and the results were reviewed by the third author.

Testing revealed:

- A more manageable number of articles were retrieved using the SPIDER tool than PICO tool.
- The search conducted using the SPIDER tool missed two relevant articles, which were identified using the PICO tool, but also found one article which was not found by the PICO tool.
- There is a need for better indexing of qualitative articles in databases to support effective searching of qualitative and mixed-methods research.

Further testing is needed on more topics to provide more information on the effectiveness of the SPIDER tool in searching for qualitative and mixed-methods research.

Validity

Validity not tested

Reliability

Reliability not tested

Methodological Rating



Unknown/No evidence

Tool Development

Developers

Alison Cooke
Debbie Smith
Andrew Booth

Method of Development

The SPIDER tool was developed from the PICO tool to support incorporating the synthesis of qualitative research into systematic reviews. To learn more about incorporating qualitative synthesis in systematic reviews, see the [Cochrane Qualitative and Implementation Methods Group](#).

Release Date

2012

Contact Person

Alison Cooke
The University of Manchester
Manchester, UK M13 9WL
Email: alison.cooke@manchester.ac.uk

Resources

Title of Primary Resource	Beyond PICO: the SPIDER tool for qualitative evidence synthesis
File Attachment	None
Web-link	http://www.ncbi.nlm.nih.gov/pubmed/22829486
Reference	Cooke, A., Smith, D. & Booth, A. (2012). Beyond PICO: the SPIDER tool for qualitative evidence sythesis. <i>Qualitative Health Research</i> , 22(1435). doi: 10.1177/1049732312452938.
Type of Material	Journal article
Format	Periodical
Cost to Access	Journal article purchase
Language	English
Conditions for Use	Copyright © 2012 The Authors

Title of Supplementary Resource	Evidence-based practice in psychiatric and mental health nursing: Qualitative meta-synthesis.
File Attachment	None
Web-link	http://www.ncbi.nlm.nih.gov/pubmed/21665782
Reference	Rice, M. J. (2008). Evidence-based practice in psychiatric and mental health nursing: Qualitative meta-synthesis. <i>Journal of the American Psychiatric Nurses Association</i> , 14(382). doi: 10.1177/1078390308326661.
Type of Material	Journal article
Format	Periodical
Cost to Access	Journal article purchase
Language	English
Conditions for Use	Copyright © 2008 American Psychiatric Nurses Association

Title of Supplementary Resource	Chapter 20: Qualitative research and Cochrane reviews
File Attachment	None
Web-link	http://handbook.cochrane.org/chapter_20/20_qualitative_research_and_cochrane_reviews.htm
Reference	Noyes, J., Popay, J., Pearson, A., Hannes, K. & Booth, A. (2011). Chapter 20: Qualitative research and Cochrane reviews. In Higgins, J. P. T. & Green, S. (Eds.), <i>Cochrane Handbook for Systematic Reviews of Interventions</i> . Version 5.0.1 (updated March 2011). The Cochrane Collaboration, 2011. Available from www.cochrane-handbook.org .
Type of Material	Chapter
Format	On-line Access
Cost to Access	None.
Language	English
Conditions for Use	Not specified