

Critical Appraisal Skills Programme (CASP)

making sense of evidence

10 questions to help you make sense of reviews

How to use this appraisal tool

Three broad issues need to be considered when appraising the report of a systematic review:

- Is the study valid?
- What are the results?
- Will the results help locally?

The 10 questions on the following pages are designed to help you think about these issues systematically.

The first two questions are screening questions and can be answered quickly. If the answer to both is “yes”, it is worth proceeding with the remaining questions.

You are asked to record a “yes”, “no” or “can’t tell” to most of the questions. A number of italicised prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

The 10 questions are adapted from Oxman AD, Cook DJ, Guyatt GH, Users' guides to the medical literature. VI. How to use an overview. JAMA 1994; 272 (17): 1367-1371

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Screening Questions

1. Did the review ask a clearly-focused question?

Yes Can't tell No

Consider if the question is 'focused' in terms of:

- the population studied
 - the intervention given or exposure
 - the outcomes considered
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2. Did the review include the right type of study?

Yes Can't tell No

Consider if the included studies:

- address the review's question
 - have an appropriate study design
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Is it worth continuing?

Detailed Questions

3. Did the reviewers try to identify all relevant studies?

Yes Can't tell No

Consider:

- which bibliographic databases were used
 - if there was follow-up from reference lists
 - if there was personal contact with experts
 - if the reviewers searched for unpublished studies
 - if the reviewers searched for non-English-language studies
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4. Did the reviewers assess the quality of the included studies?

Yes Can't tell No

Consider:

- if a clear, pre-determined strategy was used to determine which studies were included. Look for:
 - a scoring system
 - more than one assessor
-

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5 If the results of the studies have been combined, was it reasonable to do so?

Yes Can't tell No

Consider whether:

- the results of each study are clearly displayed
- the results were similar from study to study (look for tests of heterogeneity)
- the reasons for any variations in results are discussed

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6 How are the results presented and what is the main result?

Consider:

- how the results are expressed (e.g. odds ratio, relative risk, etc.)
- how large this size of result is and how meaningful it is
- how you would sum up the bottom-line result of the review in one sentence

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7 How precise are these results?

Consider:

- if a confidence interval were reported. Would your decision about whether or not to use this intervention be the same at the upper confidence limit as at the lower confidence limit?
 - if a p-value is reported where confidence intervals are unavailable
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8 Can the results be applied to the local population?

Yes Can't tell No

Consider whether:

- the population sample covered by the review could be different from your population in ways that would produce different results
- your local setting differs much from that of the review
- you can provide the same intervention in your setting

9 Were all important outcomes considered?

Yes Can't tell No

Consider outcomes from the point of view of the:

- individual
- policy makers and professionals
- family/carers
- wider community

10 Should policy or practice change as a result of the evidence contained in this review?

Yes Can't tell No

Consider:

- whether any benefit reported outweighs any harm and/or cost. If this information is not reported can it be filled in from elsewhere?
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