Template for a Systematic Review Protocol

1. Change Record

This should be a list or table summarizing the main updates and changes embodied in each version of the protocol and (where appropriate), the reasons for these.

2. Background

a) explain why there is a need for a study on this topic
b) specify the main research question being addressed by this study
c) specify any additional research questions that will be addressed
d) if extending previous research on the topic, explain why a new study is needed

3. Search Process

a) specify and justify basic strategy: manual search, automated search, or mixed
b) for automated searches, specify search terms and compounds of these and record results of any prototyping of the search strings
c) for automated searches, identify resources to be used (specifying the digital libraries and search engines)
d) for manual searches, identify the journals and conferences to be searched
e) specify the time period to be covered by the review and any reasons for your choice
f) identify any ancillary search procedures, for example, asking leading researchers or research groups, or accessing their web sites; or checking reference lists of primary studies
g) specify how the search process is to be evaluated (for example, against a known subset of papers; or against the results from a previous systematic review)

4. Primary Study Selection Process

a) identify the *inclusion* criteria for primary studies
b) identify the *exclusion* criteria
c) define how selection will be undertaken (roles of reviewers)
d) define how agreement among reviewers will be evaluated
e) define how any differences between reviewers will be resolved

5. Study Quality Assessment Process

a) specify the quality checklists to be used
b) specify how the checklist will be evaluated (if a new checklist has been developed)
c) define how agreement among data extractors will be evaluated
d) define how any differences between data extractors will be resolved
e) identify the procedures to use for applying the checklists, such as details inclusion/exclusion, partitioning the primary studies during aggregation or meta-analysis, and explaining the results of primary studies

6. Data Extraction Process

a) design data extraction form (and check via a dry run)
b) specify the strategy for extracting and recording the data (for example, paper form, on-line. Form or database)
c) identify how the data extraction process is to be undertaken and validated, particularly any data that require numerical calculations, or are subjective

7. Data Synthesis Process

a) specify the form of analysis/synthesis to be used (for example, narrative, tabulation, meta-analysis)
b) discuss how the synthesis will be validated

8. Study Limitations

a) assess the threats to validity (construct, internal, external), particularly constraints on the search process and deviations from standard practice
b) specify residual validity issues including potential conflicts of interest that are inherent in the context of the study, rather than arising from the plan

9. Reporting

a) identify target audience, relationship to other studies, planned publications, authors of the publications
b} agree in advance who will be included in the list of authors and whose assistance will reported in the acknowledgements section.

10. Schedule

Provide time estimates for all of the major steps.

FIGURE 22.5: Template for a systematic review protocol