Managing the SR search process

A guide to documentation, reporting, and using EndNote to manage citations

Raechel Damarell
Senior Liaison Librarian for Medicine, Nursing, and Health Sciences
Raechel.Damarell@flinders.edu.au

Created: 27/4/15
Documenting the search

• Check journal requirements for submitting systematic review manuscript for consideration. E.g. *Physical Therapy*

• Look at how SR search reporting is done in *Cochrane systematic reviews* or your target journal.

• Standard practice = using the [PRISMA checklist](https://www.prismastudy.org/) and [flow diagram](https://www.prismastudy.org/).
Reporting the search

• Methods section
  – Report all resources searched and any other search methods used.
    • E.g. hand searches, authors contacted, reference lists checked, grey sources searched
  – Report dates each database or grey resource was searched
  – Report inclusion/exclusion criteria, and any limits applied
    • E.g. English language only, RCTs only
Reporting the search

• Results section
  – Include PRISMA flow diagram and narrative description of the search results and screening process

• Provide search strategies in Appendix

• Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated, e.g. sample Cochrane review appendix
Documenting the search: methods section

The following electronic databases were searched: DARE, Cochrane, MEDLINE, BNI, PsychINFO, and EMBASE following a two-step systematic search strategy to identify studies adopting a qualitative and/or quantitative methodology. The search architecture used a wide range of keywords and free text items to increase the sensitivity and inclusiveness of the searches (see Table 1).

Inclusion and exclusion criteria were applied to all records identified. The electronic searches began on 15th September 2014 and concluded on the 15th of October 2014. All records were managed using the software package Endnote X4. The following pre-selection criteria were applied to all records.

**Inclusion Criteria**

- Studies investigating the unmet/supportive care needs of men with prostate cancer irrespective of disease stage, treatment modality, or time since diagnosis
- Qualitative and quantitative methods irrespective of research design
- Studies published in the English language
- Studies conducted with adults (≥18 years old)
- Studies published in peer-reviewed journals between 1990 and 2014

**Exclusion Criteria**

- Studies testing the psychometric properties of Supportive Care Needs Questionnaires.
- Studies where unmet/supportive care needs were not explicitly reported.
- Studies conducted with patients with mixed cancer groups, except when separate sub-group analyses were reported.
Study selection and data extraction procedures

The publications (titles and abstracts) were reviewed independently by members of the research team using a pro forma checklist to make decisions to include or not to include studies, based on the inclusion/exclusion criteria. All articles which met the inclusion criteria were retrieved in full-text. Any disagreements were resolved through discussion. Data extraction tables were specifically developed for this review, pilot tested on three randomly selected studies of the final sample, and subsequently refined as necessary (Centre for Reviews and Dissemination, 2008; The Cochrane Collaboration, 2009). One author extracted data from the final sample of studies. The included studies were subject to a quality appraisal conducted by the review team to inform the suitability of each individual study in the results synthesis based upon methodological quality.

Quality appraisal

Methodological quality evaluation was conducted using the two quality appraisal tools, one quantitative appraisal tool and one qualitative appraisal tool (Shaw et al., 2009) which enabled a plethora of methodologies to be evaluated. The quality appraisal tools have been used in a variety of systematic reviews, including prostate cancer (Paterson et al., in press, 2013). The quantitative appraisal tool assessed a range of designs including: RCT’s, non-RCT, cohort, case-control, observational (for example, multiple
Findings

Search results

Of the 7521 publications retrieved from the search 7473 were excluded following the application of the inclusion/exclusion criteria, see Fig. 1.

This left 28 publications reviewed in full, 11 articles were excluded (Baker, 2004; Chambers et al., 2011; Duke et al., 2003, 2005; Engstrom, 2006; Jakobsson et al., 1997a; Kelsey et al., 2004; Lepherd, 2014; Letts et al., 2010; Templeton and Coates, 2001; Vieira et al., 2014) with reasons because they did not meet the inclusion criteria, see Fig. 1. This left 17 studies which fully met the inclusion criteria: 8 cross-sectional surveys (Boberg et al., 2003; Cockle-Hearne et al., 2013; Mason, 2008; Ream et al., 2008; Soeyonggo et al., 2012; Steginga et al., 2001; Templeton and Coates, 2003; Wong et al., 2000) and 9 exploratory qualitative studies (Carter et al., 2011, 2014; Evertsen and Wolkenstein, 2010; Jakobsson et al., 1997b; Kazer et al., 2011; O’Brien et al., 2011; O’Brien et al., 2010; Sinfield et al., 2008, 2012) see Table 3 for an overview of the studies included. This is a relatively small number of publications and indicates the relative lack of high quality research in this field.
Documenting the search: results section

Fig. 1. PRISMA
Documenting the search: final quality check

- Check your reporting against critical appraisal checklists for systematic reviews
  - CEBM (University of Oxford)
  - CASP (Critical Appraisal Skills Programme)
Exporting citations to EndNote

- EndNote is available for Flinders staff and students to download to a personal computer

- Easy-to-follow instructions for using EndNote X7 are available at http://endnote.com/training/videos#qt-endnote_training_videos-ui-tabs2
Step 1. Export database citations into EndNote

• ‘Export’ database citations into a separate EndNote library per database searched (e.g. Medline, PsycINFO).
  – This process ensures that if anything goes wrong with your ‘master’ working library, it’s possible to recreate it without having to rerun all your searches.
• Maintain a separate library for citations found outside of databases via hand searching, reference checking etc. Call this ‘Other Citations’
• Create a new library and call it ‘Total Db Library’
• Copy all individual libraries into this
Combining EndNote libraries

Total Db Library (n=1891)

PsycINFO citations (n=100)

CINAHL citations (n=256)

Scopus citations (n=634)

Medline citations (n=400)

Web of Science citations (n=501)
Building PRISMA

Records identified through database searching (n=1891)

Additional records identified through other sources (n=25)
Step 2. Remove duplicate citations

• Click on References then Find Duplicates to identify and remove duplicates
• Some manual scanning of citations will still be necessary!
• Record the number of citations in your ‘total library’ before and after this process for PRISMA
Building PRISMA

- Records identified through database searching (n=1891)
- Additional records identified through other sources (n=25)
- Records after duplicates removed (n=676)
Step 3. Create EndNote groups

- Create three EndNote ‘groups’ titled
  - Yes (or Relevant)
  - Uncertain (i.e. more information required)
  - No (or irrelevant)
- Screen citation titles and abstracts for relevance
- Move each citation into one of these categories based on title/abstract screening
- Record for PRISMA the number of citations in the No group
Step 3. Create EndNote groups

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wiemers, P.; Ma...</td>
<td>2014</td>
<td>Cardiac surgery in indigenous Australians - How Wide is 'The Gap'?</td>
</tr>
<tr>
<td>Supramaniam, R...</td>
<td>2014</td>
<td>Increasing rates of surgical treatment and preventing comorbiditi...</td>
</tr>
<tr>
<td>Redfern, J.; Ush...</td>
<td>2014</td>
<td>A randomised controlled trial of a consumer-focused e-health str...</td>
</tr>
<tr>
<td>Matebele, M. P.;...</td>
<td>2014</td>
<td>Cardiac Surgery in Indigenous Australians: Early Onset Cardiac...</td>
</tr>
<tr>
<td>Lopez, D.; Katze...</td>
<td>2014</td>
<td>Transfers to metropolitan hospitals and coronary angiography fo...</td>
</tr>
<tr>
<td>Foy, A.; Tierney, A.</td>
<td>2014</td>
<td>Internal medicine in the bush: A clinical audit of a rural and rem...</td>
</tr>
<tr>
<td>Brown, A.; Carri...</td>
<td>2014</td>
<td>Cardiometabolic risk and disease in Indigenous Australians: The...</td>
</tr>
<tr>
<td>Selak, V.; Crengl...</td>
<td>2013</td>
<td>Recruiting equal numbers of indigenous and non-indigenous parti...</td>
</tr>
<tr>
<td>Roe, Y. L.; Zeitz...</td>
<td>2013</td>
<td>Impact of age, gender and indigenous status on access to diagn...</td>
</tr>
<tr>
<td>Roberts, K. V.; B...</td>
<td>2013</td>
<td>Utility of auscultatory screening for detecting rheumatic heart dis...</td>
</tr>
<tr>
<td>Randall, D. A.; J...</td>
<td>2013</td>
<td>Disparities in revascularization rates after acute myocardial infar...</td>
</tr>
<tr>
<td>Prabhu, A.; Tully,...</td>
<td>2013</td>
<td>The morbidity and mortality outcomes of indigenous australi...</td>
</tr>
<tr>
<td>Plant, N.; Mallitt,...</td>
<td>2013</td>
<td>Implementation and effectiveness of 'care navigation', coordinate...</td>
</tr>
<tr>
<td>Panaretto, K. S.;...</td>
<td>2013</td>
<td>Prevention and management of chronic disease in Aboriginal and...</td>
</tr>
<tr>
<td>Ong, K. S.; Carte...</td>
<td>2013</td>
<td>Cost-effectiveness of Interventions to Prevent Cardiovascular Di...</td>
</tr>
<tr>
<td>Nelson, M. R.; D...</td>
<td>2013</td>
<td>Primary prevention of cardiovascular disease: New guidelines, te...</td>
</tr>
<tr>
<td>Maple-Brown, L...</td>
<td>2013</td>
<td>Pregnancy and Neonatal Diabetes Outcomes in Remote Australi...</td>
</tr>
<tr>
<td>Dias, S.; Ware, R...</td>
<td>2013</td>
<td>Physical health outcomes in prisoners with intellectual disability...</td>
</tr>
<tr>
<td>Chew, D. P. B.; S...</td>
<td>2013</td>
<td>The changing face of cardiovascular care in Australia</td>
</tr>
<tr>
<td>Artuso, S.; Carg...</td>
<td>2013</td>
<td>Factors influencing health care utilisation among Aboriginal cardi...</td>
</tr>
</tbody>
</table>
Building PRISMA

Records identified through database searching (n=1891)

Additional records identified through other sources (n=25)

Records after duplicates removed (n=676)

Records screened (n=676)

Records excluded (No group) (n=389)
Step 4. Obtain full text articles

• For Yes and Uncertain groups, obtain full text articles

• Use EndNote’s ‘Find full text’ function

• Check EndNote configured to search Flinders University Library holdings
Step 4. Obtain full text articles
Disparities in Revascularization Rates After Acute Myocardial Infarction Between Aboriginal and Non-Aboriginal People in Australia

Deborah A. Randall, Louisa R. Jorm, Sanja Lujic, Aiden J. O'Loughlin, Sandra J. Eades and Alastair H. Leyland
Step 4. Obtain full text articles

- Create new group called *No (full text scan)*

**The Uncertain group**
- Based on full text reading, move *Uncertain* group citations to either *No (full text scan)* group or *Yes* group

**The Yes group**
- Check all *Yes* citations against eligibility criteria and critically appraise for quality
- Remove any that don’t meet criteria to *No (full text scan)* group
Building PRISMA

Records identified through database searching (n=1891)

Additional records identified through other sources (n=25)

Records after duplicates removed (n=676)

Records screened (n=676)

Records excluded (No group) (n=389)

Full-text articles assessed for eligibility (Yes and Uncertain) (n=287)

Full-text articles excluded, with reasons (No – full text scan set) (n=257)