The Joanna Briggs Institute approach to scoping reviews: An example from bush medicine research

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Jennifer Hunter, Janette Mumford
JBI Comprehensive Systematic Review Training Program
Overview

1) Joanna Briggs Institute (JBI)
   - History, vision, mission
   - JBI FAME Scale
   - JBI Model of Evidence-Based Healthcare

2) Systematic reviews
   - Scoping reviews

3) Example: Scoping review protocol
   - Bush medicine research
JBI History

- Established in 1996 at the Royal Adelaide Hospital, South Australia
- Named after the first Matron of the Hospital
- In 2010 became part of the University of Adelaide
- Comprises of an international collaboration of health scientists, health professionals and health researchers committed to ‘Best Practice’
JBI Vision

> A world in which the best available evidence is used to inform policy and practice to improve health in communities globally
JBI Mission

> To facilitate the synthesis, transfer and implementation of the best available evidence to ensure the feasibility, appropriateness, meaningfulness and effectiveness of health policy and practice
Australasia

- The New South Wales Centre for Evidence Based Health Care
- The Centre for Evidence-based Practice South Australia (CEPSA)
- The Queensland Centre for Evidence Based Nursing and Midwifery
- The Western Australian Group for Evidence Informed Healthcare Practice
- The University of Newcastle Centre for Evidence Based Healthcare Informing Research (CEBHIR)
- The Centre for Chronic Disease Management
- The Australian Capital Regional Centre for Evidence-Based Nursing and Midwifery Practice
- Centre for Evidence based Initiatives in Health Care
- The Australian Centre for Evidence-Based Primary Health Care
- The Centre for Evidence based Initiatives in Health Care
- CEBHA – Centre for Evidence-Based Healthy Ageing
- Aged Care Quality Association Evidence Implementation Group
- Dementia Collaborative Research Centre - Consumers, Carers & Social Research: An Evidence Synthesis Group
- Royal Perth Hospital JBI Evidence Synthesis Group
- St John of God Murdoch JBI Evidence Implementation Group
- Southern Tasmania Area Health Service: A JBI Implementation Group
- SomerCare Rainbow Chimers: A JBI Evidence Implementation Group
JBI Definition of Evidence

“The basis of belief; the substantiation or confirmation that is needed in order for us to believe that something is true”
(Pearson et al, 2005 p. 86)

It may include:

- Research studies
- Experience/ expertise
- Discourse
Evidence is required to substantiate a wide range of activities and interventions – both practice and policy.

Is the approach:
- Feasible?
- Appropriate?
- Meaningful?
- Effective?
The JBI Model of Evidence-Based Healthcare

Overarching principles
Culture - Capacity - Communication - Collaboration
The JBI Model of Evidence-Based Healthcare

Evidence Based Healthcare
Feasible
Appropriate
Meaningful
Effective
The JBI Model of Evidence-Based Healthcare

Global Health

Sustainable Impact

Engagement

Knowledge need
The JBI Model of Evidence-Based Healthcare
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The JBI Model of Evidence-Based Healthcare

Overarching principles
Culture - Capacity - Communication - Collaboration
Part 2
Systematic Reviews
Systematic Review

Systematic reviews aim to provide a comprehensive, unbiased synthesis of many relevant studies in a single document using rigorous and transparent methods. A systematic review does not seek to create new knowledge but rather to synthesize and summarize existing knowledge.

(Aromataris & Pearson, 2014)
Why do a Systematic Review?

The aims of a systematic review may be to:

1. uncover the international evidence
2. confirm current practice/address any variation
3. identify areas for future research
4. investigate conflicting results
5. produce statements to guide decision-making.
Literature Review vs Systematic Review

**Literature Review**
- Choices made for inclusion of studies can be subjective
- Conducted according to no stated methodology
- Leads to risk of bias/systematic error
- Limited searching
- Unreproducible and not transparent

**Systematic Review**
- Informed by an a priori protocol
- Structured research process
- Steps are taken to reduce bias
- Systematic and often exhaustive searching for information
- Transparent and reproducible methods
Systematic Review Standards

Standards provide guidance on:

- Initiating a systematic review
- Finding and assessing individual studies
- Synthesizing the body of evidence
- Reporting systematic reviews
- **Mainly focus on quantitative reviews**
Types of Systematic Reviews

1. Effectiveness Reviews
2. Qualitative Reviews
3. Costs/Economics Reviews
4. Prevalence or Incidence Reviews
5. Diagnostic Test Accuracy Reviews
6. Etiology and Risk Reviews
7. Textual Synthesis Reviews
8. Mixed Methods Reviews
9. Umbrella Reviews
10. Scoping Reviews
Systematic Review Protocol

Essential to any systematic review

• Pre-defines the objectives and methods of the systematic review
• Allows transparency, reduces reporting bias
• Must be done prior to conducting the systematic review
• Is a separate document to the systematic review report
Systematic Review Protocol

– Guides the specific direction of the review,
– Describes inclusion criteria
– Identifies appropriate search sources and resources
– Describes methods of study selection, appraisal, extraction and synthesis
Systematic Review Protocol

> For JBI reviews, protocols must be done in JBI SUMARI

> Protocols are submitted for peer review (two registered peer reviewers from the Institute/Collaboration)

> Published a priori via JBISRIR, CDSR, PROSPERO
The JBI Software

System for the Unified Management, Assessment and Review of Information
JBI SUMARI

First released in 2003, new version launched in 2016

JBI SUMARI 5.0 includes

• Comprehensive Review Management System (CReMS)
• Four analytical modules:
  QARI
  MAStaRI
  NOTARI
  ACTUARI
JBI SUMARI

Covers all JBI systematic review types

• Protocol builder with set templates
• Team management
• Study selection
• Critical appraisal
• Data extraction
• Synthesis
Question Development

A variety of mnemonics exist to help reviewers structure the review question:

– PICO most common for effectiveness reviews
– PICo for qualitative reviews
– CoCoPop for prevalence and incidence reviews
– PIRD for diagnostic test accuracy reviews
– PEO for etiology and risk reviews
– PCC for scoping reviews
## Question Development

<table>
<thead>
<tr>
<th>Review Type</th>
<th>Mnemonic</th>
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<tbody>
<tr>
<td>Effectiveness</td>
<td>PICO</td>
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<td>Qualitative</td>
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<tr>
<td>Textual Synthesis</td>
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<tr>
<td>Mixed Methods</td>
<td>PICO or PICo or PIRD or CoCoPop or PEO or multiple</td>
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<td>Umbrella</td>
<td>PICO or PICo or PIRD or CoCoPop or PEO or multiple</td>
</tr>
<tr>
<td>Scoping</td>
<td>PCC</td>
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Scoping reviews

The Joanna Briggs Institute Reviewers’ Manual 2015
Methodology for JBI Scoping Reviews
Scoping Reviews – Purpose

Scoping reviews identify and map the available evidence. They are conducted:

• As a precursor to a systematic review
• To identify and analyse knowledge gaps
• To clarify key concepts/definitions in the literature
• To identify the types of available evidence in a given field
• To examine how research is conducted on a certain topic.
Scoping Reviews – Methods

> May pose broader questions than other types of systematic review

> Source of information may include any existing literature

> No critical appraisal

> Iterative data extraction

> Charting/mapping and presenting the results

> Implications for practice are limited
Scoping Reviews – Questions

PCC mnemonic: Population, Concept, Context

Population should detail important characteristics and any exclusion criteria

Core concept should be clearly articulated to guide scope and breadth

Context may refer to cultural factors and specific setting details

NB: not all elements apply to every scoping review.
Data Extraction

Dependent on scoping review purpose

Could include:

– Author(s)
– Year of publication
– Origin/country of origin
– Aims/purpose
– Study population and sample size (if applicable)
– Methodology/methods
– Intervention type, comparator and details of these
– Outcomes and details of these (if applicable)
– Key findings that relate to the scoping review question/s
Charting and Presenting Results

Results may be presented as a map of the data extracted from the included papers in a diagrammatic or tabular form, and/or in a descriptive format that aligns with the objective and scope of the review.
Part 3
Scoping Review Protocol
Bush Medicine Research
The integration of Indigenous healing practices with western biomedicine in Australia, Canada, New Zealand and the United States of America: A scoping review protocol

Ilse Blignault, CHR/THRI; Jennifer Hunter, NICM;
& Janette Mumford, SSP
Protocol Structure

- Title
- Authors
- Background
- Review questions
- Methodology – Concepts, context, literature type
- Search strategy – Information sources, search terms
- Literature selection
- Data Extraction
- Data presentation
- Conflicts of Interest
- Acknowledgments
- References
- Appendices – Draft charting tables
Background

Globally, irrespective of a country’s level of economic development, Indigenous peoples experience worse health than non-Indigenous population.

In Australia, Closing the Gap initiatives have met with mixed success.

Since the 1970s, there repeated calls for recognition of traditional healing practices as part of an integrated, two-way or both-ways approach to Indigenous health care delivery.

NATSIHP 2013–2023 acknowledges the centrality of culture in the health of Indigenous Australians. Strategies include building a contemporary evidence base on all aspects of health care including use of traditional healing practices and cultural models of care.
Background

While integration of Indigenous healing practices with western biomedicine is now commonplace in many LMICs, recognition and support for Indigenous healing practices in industrialised countries is variable.

Indigenous healing practices characterised by holistic approach; include physical techniques and medicinal plants, insects and animals, as well as ceremonies and rituals, healing songs and spiritual healing; used for women’s health, child health, palliative care, cancer, mental health, substance use disorders and spiritual disorders...
Objective

To identify, describe and map examples of integration of indigenous healing practices with, or use alongside, western biomedical practice in Australia, Canada, New Zealand and the USA. These four high-income countries with common colonial origins are often compared and contrasted in the indigenous health literature, as they have much to learn from each other.

A preliminary search found no systematic reviews existing or underway that address this scoping review objective.
Questions

• What types of indigenous healing practices have been integrated with western biomedical practice in Australia, Canada, New Zealand and the USA, and what have they been used for?

• How has this been achieved?
Inclusion criteria

Examples of Indigenous healing practices used alongside biomedicine with the explicit intention of doing any of the following:

• managing illness (including minor ailments, serious illness and chronic disease)
• promoting early intervention and preventing lifestyle illness and disease (including bush tucker nutrition)
• improving holistic aspects of health and wellbeing (emotional, social, or spiritual, including strengthening connection to culture).
Inclusion criteria

Context
Health services and health care delivery settings in Australia, Canada, New Zealand and the USA, including community-based primary health and specialist services, hospital-based services, rehabilitation and palliative care.
Inclusion criteria

Literature type
Primary research studies, reviews and meta-analyses, reports of patient and practitioner experiences, publications by government agencies and Indigenous organisations, opinion papers and commentary.

Studies and other documents written in the English language from 1970 onwards; corresponding to the beginning of the primary health care movement internationally, and establishment of the first Aboriginal community-controlled health service in Australia.
Pause …
Summary

• JBI evidence-based practice model is considered a benchmark in the healthcare industry.
• Library provides access to the JBI database and all the JBI Tools for systematic reviews, including scoping reviews.
• A protocol detailing the objectives and methods of the systematic review, must be developed prior to conducting the review.
The Joanna Briggs Institute Database of Systematic Reviews and Implementation Reports

> The JBISRIR publishes systematic review protocols, systematic reviews and the Institute's implementation reports

> Each submitted manuscript undergoes blind evaluation by two reviewers
Publishing in JBISRIR

All JBI reviews must:
• have at least two reviewers
• be done in SUMARI
Use of CReMS is a requirement
Adherence to PRISMA guidelines is recommended
At least one author on JBI review/protocol must have completed JBI CSRTP...