Methods of conducting reviews of the health care literature

Methods of conducting reviews

• Meta-analysis
• Systematic reviews
• Qualitative reviews
• Integrative reviews
Meta-analysis

- Meta-analysis is a research review method that combines the evidence of multiple primary studies by employing statistical methods, thus enhancing the objectivity and validity of findings.
Systematic reviews

• Systematic reviews are research reviews that combine the evidence of multiple studies regarding a specific clinical problem to inform clinical practice and are the method of choice for evidence-based practice initiatives (that is, Cochrane Collaboration).
Qualitative reviews

• Meta-synthesis, meta-studies, formal grounded theory, and meta-ethnography methods are aimed at synthesizing findings of individual qualitative studies into a new theory or overarching framework on the phenomenon of concern.
Integrative reviews

• Integrative reviews are the broadest type of research review methods allowing for the simultaneous inclusion of experimental and non-experimental research in order to more fully understand a phenomenon of concern.

• Integrative reviews may also combine data from the theoretical as well as empirical literature.
Integrative reviews

• In addition, integrative reviews incorporate a wide range of purposes: to define concepts, to review theories, to review evidence, and to analyse methodological issues of a particular topic.

• The varied sampling frame of integrative reviews in conjunction with the multiplicity of purposes has the potential to result in a comprehensive portrayal of complex concepts, theories, or health care problems.
Stage of review

• Problem identification
• Literature search
• Data evaluation
• Data analysis
  – Data reduction
  – Data display
  – Data comparison
  – Conclusion drawing and verification
• Presentation
Elements of data analysis

- Noting patterns and themes
- Seeing plausibility
- Clustering
- Counting
- Making contrasts and comparisons
- Discerning common and unusual patterns
- Subsuming particulars into general
- Noting relations between variability
- Finding intervening factors
- Building a logical chain of evidence
Example of integrative review on the concept of integration

Stage of review: Problem identification

• Illustration of decisions and issues

Theoretical and empirical work in the past decade related to the concept of integration suggested that integration was an important aspect of healing and living with a chronic illness. However, it was unclear what the similarities were across empirical and theoretical reports and whether the process of integration was similar across health-related issues. Greater understanding of the concept of integration was proposed as a possibly effective way to identify stages of healing responsive to nursing interventions. Therefore, the purpose of this integrative review was to analyse the concept of integration as related to health and illness.
Stage of review: Literature search

Illustration of decisions and issues

Having a specific focus on the experience of integration as related to health, illness, or nursing care facilitated the literature search stage. After using integration as a keyword in the CINAHL database, reports were initially excluded if integration was discussed in terms of health care systems (integrating a new policy in the workplace) or health care education (integrating theory and research into practice). By focusing the review, potentially relevant sources identified were reduced from 3982 to less than 200 reports.
Stage of review: Data evaluation

• **Illustration of decisions and issues**

  The final sample for this integrative review included empirical and theoretical reports. Empirical reports included a wide variety of methods: case study, cross-sectional, grounded theory, phenomenology, and instrument development designs. Due to this diverse representation of primary sources, reports were coded according to two criteria relevant to this review: methodological or theoretical rigour and data relevance on a 2-point scale (high or low). No report was excluded based on this data evaluation rating system; however, the score was included as a variable in the data analysis stage. In general, reports of low rigour and relevance contributed less to the analytic process.
Stage of review: Data analysis

• **Illustration of decisions and issues**
  
  Data were extracted from primary sources on sample characteristics and method (if empirical) as well as any reference to the concept of integration. Categories that were extracted included the definition of integration, aspects of the process of integration, antecedents, consequences, and facilitators of integration. Related terms were identified in addition to proposed relationships of integration to other variables. Data display matrices were developed to display all of the coded data from each report by category and were iteratively compared. As data were conceptualized at higher levels of abstraction, each primary source was reviewed to verify that the new conceptualization was congruent with primary sources.
Stage of review: Presentation

• Illustration of decisions and issues

A synthesis in the form of a model was developed to comprehensively portray the process of integration.
Conclusion

- The integrative review method can summarize past empirical and theoretical literature on a topic of interest.
- The integrative review method can incorporate diverse methodologies in order to capture the context, processes and subjective elements of the topic.
- The integrative review method has been critiqued for its potential for bias and lack of rigour.