

AN INTEGRATIVE LITERATURE REVIEW FRAMEWORK FOR POSTGRADUATE NURSING RESEARCH REVIEWS

Christmals, Christmal Dela
University of Witwatersrand
SOUTH AFRICA

Gross, Janet J.
Morehead State University (USA),
Southern Africa Nazarene University
SWAZILAND

ABSTRACT

Difficulties in understanding review methodologies and the inability of supervisors to assist students to conduct comprehensive reviews in fulfilment of the requirements for a master's degree have resulted in limited integrative literature reviews as a form of research in master of nursing programmes. This paper synthesised the major integrative review frameworks and the research process into a comprehensive framework to guide postgraduate students and supervisors in conducting integrative literature reviews leading to the award of a master's degree in nursing and related fields of study. It is recommended that the framework for conducting a comprehensive academic integrative literature review for use by master's students and their supervisors in conducting integrative literature reviews. Further research and evaluation of this framework are needed to improve the integrative literature review methodology.

INTRODUCTION

Difficulties in understanding review methodologies and the inability of supervisors to assist students to conduct comprehensive reviews in fulfilment of the requirements for a master's degree have resulted in limited systematic and integrative reviews in Sub-Saharan Africa (SSA) (Ham-baloyi & Jordan, 2015). Mastering the field of study is an important tenet in a master's degree programme (Ham-baloyi & Jordan, 2015). A postgraduate research report or dissertation is not expected to add new knowledge to the area of study (De Kock & Levey, n.d.; Rowan University, 2013; University of Sydney, 2001; University of Witwatersrand, 2015). However, it must demonstrate an understanding of available literature and the ability to present discipline-specific scholarly work. The research report or dissertation must demonstrate: evidence of independent investigation, synchronise the topic to the broader field of knowledge, understanding of investigative techniques relevant to the research question and conclude (De Kock & Levey, n.d.; Rowan University, 2013; University of Sydney, 2001; University of Witwatersrand, 2015).

Integrative Literature Review

An integrative literature review is a non-experimental design in which the researchers objectively critique, summarise and make conclusions about a subject matter through a systematic search, categorization and thematic analysis of past qualitative and quantitative research studies on the subject (LoBiondo-Wood & Haber, 2010; Sparbel & Anderson, 2000; Torraco, 2005). An integrative review, a comprehensive and inclusive methodology, permits the inclusion of both quantitative and qualitative research articles (Whittemore & Knafl, 2005). This review methodology is sophisticated and therefore demands greater insight and adherence to detail (Torraco, 2005).

Implications of an Integrative Literature Review for a Postgraduate Research Report

Through integrative reviews, students can explore a wide variety of literature available on the area of study aiding him or her to meet the primary goal of the study-mastering the area of study (Ham-baloyi & Jordan, 2015; Whittemore & Knafl, 2005). It also enables the student to review previous work done in their field of specialisation which gives them direction for their doctoral studies (De Souza & Carvalho, 2010; Ganong, 1987; Ham-baloyi & Jordan, 2015; Russell, 2005; Sparbel & Anderson, 2000; Whittemore & Knafl, 2005). It provides the student with the opportunity to examine the conceptual frameworks successfully used in the area of research, the best fit data collection tools, the optimum data analysis procedure and also the authorities within the field of studies (Sparbel & Anderson, 2000).

Reviews are vital in the academic and clinical nursing community (Ham-baloyi & Jordan, 2015). As nursing specialisation increases and the quantity of nursing research expand, the research community is under Evidence-Based Practice obligation to have an accurate and up-to-date insight into their area of practice. Reviews help the nurses to keep up with this obligation, by bringing together and determining the quality and usability of literature (Kpodo, 2015; Russell, 2005; Sparbel & Anderson, 2000; Torracco, 2005; Whittemore & Knafl, 2005). If the master's student is not expected to produce new knowledge in their research, at least he or she can synthesise the available literature in an area of specialisation, meeting the requirement for the qualification and also giving society an outstanding product that is useful.

PURPOSE OF THIS PAPER

This paper synthesised the major integrative review frameworks (Cooper, 1982; De Souza & Carvalho, 2010; Ganong, 1987; Russell, 2005; Torracco, 2005; Whittemore & Knafl, 2005) and the research process (conceptual, empirical, interpretive and communication phases) into a comprehensive framework to guide a postgraduate students and supervisors in conducting integrative review in partial fulfilment of the award of a master's degree.

METHODOLOGY

This paper used the 'best fit' framework synthesis (Carroll, Booth, & Cooper, 2011; Carroll, Booth, Leaviss, & Rick, 2013) to integrate the major integrative review models with the research process to develop a comprehensive framework for integrative review as a research pathway for a master's degree. 'Best fit' framework synthesis involves creating deductive themes and codes against which the data is analysed thematically (Carroll et al., 2011, 2013). This approach is fast, practical and very transparent compared to other qualitative data synthesis procedures as it uses a priori codes, themes, and patterns in analysing data. Data that cannot fit into the framework are considered iterative and are analysed using inductive thematic analysis (Carroll et al., 2011, 2013). The synthesis was in two phases:

Phase I

Synthesising the integrative literature review models (Cooper, 1982; De Souza & Carvalho, 2010; Ganong, 1987; Russell, 2005; Sparbel & Anderson, 2000; Torracco, 2005; Whittemore & Knafl, 2005) under the framework (the research process-conceptual, empirical, interpretive and communication phases) (Brink, Walt, & Rensburg, 2013).

Phase II

Synchronising the results of 1(above) with the body (five chapters) of the research report (Introduction, Literature review, Methodology, Results, and Discussion, conclusion and recommendations) (Adelaide University, 2014; University of Sydney, 2001; University of Witwatersrand, 2015).

DATA EXTRACTION AND SYNTHESIS

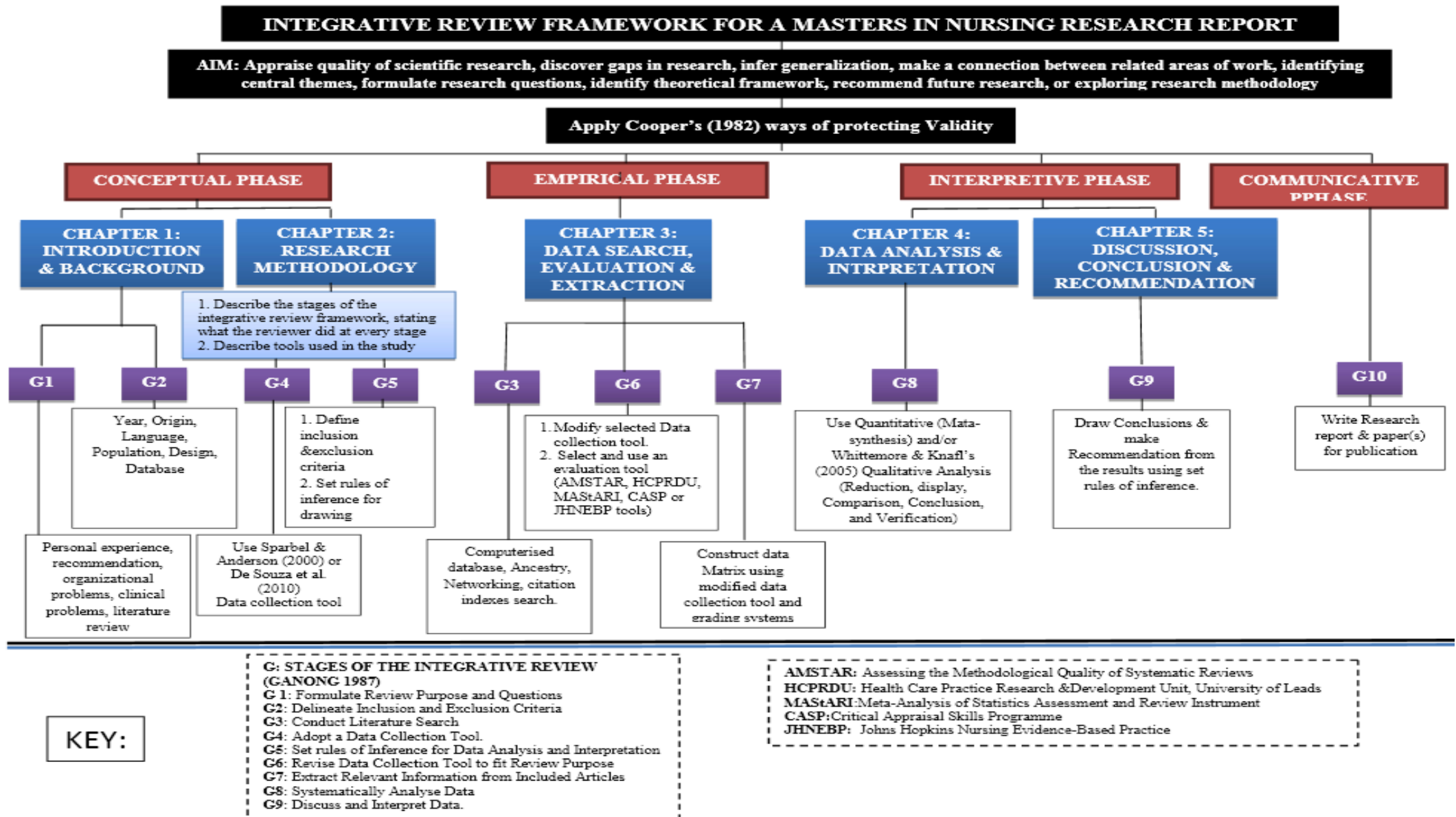
Data has been extracted from the included studies and synthesized into an integrative literature review framework for master's degree research report as in the figure below.

4.1 Data matrix

Study	Aim	Definition of Integrative Review and Search Strategy	Proposed Stages	Major Contributions	Data Analysis Procedure
Cooper 1982	Conceptualizes the integrative review as a research process containing five stages	Integrative reviews inferentially generalize main issues from a group of studies on a specific topic. Search (1) "Invisible college"; (2) ancestry approach; (3) use of abstracting services; and (4) computerised search.	1. Formulate problem 2. Collect data 3. Evaluate the data collected 4. Analyse and interpret data 5. Disseminate findings	1. The five stages of reviewing contain 10 threats to validity.	Both statistical and qualitative analysis
Ganong 1987	To communicate the methods and the processes used in conducting integrative reviews.	Integrative reviews are a study in which the researcher is seeks to generalize information about a group of studies on a topic. Search 1. Computer databases 2. Reference lists 3. Associated reviews 4. Library citation indexes.	1. Formulate the purpose and review questions 2. Establish inclusion criteria. 3. Literature search 4. Develop data extraction questionnaire 5. Set rules of inference for data synthesis. 6. Revise data extraction questionnaire to fit purpose 7. Extract data 8. systematically analyze data 9. Synthesize data. 10. Write review report	The review must: a. ensure valid, objective, and comprehensive analyses b. Pay attention to all aspects of the study included. c. Describe the studies reviewed d. Give the audience information rather than excessive content.	1. Qualitative(meta-analysis) synthesis
Russell 2005	To give an overview of the integrative research review.	A study in which an overall conclusion is drawn from studying what has already been done in an area Search 1. Informal channels: Personal research findings, the invisible college, expert contacts, conferences and workshops. 2. Primary Sources Review of journals, and the ancestry approach 3. Secondary sources	1. Formulate problem. 2. Search literature and extract 3. Evaluate the studies included 4. Analyse data 5. Interpret result and disseminate findings	1. There are seven benefits of reviews to the reviewer 2. Make the search exhaustive.	Both statistical approach(meta-analysis) and non- statistical approaches

		Bibliographies and government archives, research registers, and databases.			
Torraco 2005	To discuss how to organize and write an integrative review	This study search describes critique and analyse literature on a topic of interest to generate new perspectives. Search Computerized database search and ancestry approach	1. Identify an appropriate topic. 2. Justify literature review methodology 3. Search literature. 4. Analyze and critique the literature. 5. Synthesize results.	Guidelines for Writing a Review: Before review, organizing the review and reporting the review	Metatheory
Whittemore & Knafl 2005	To distinguish integrative reviews from other reviews and describe it's methodology	This method seeks to give a comprehensive meaning of a phenomenon through the synthesizing past research o the phenomenon. Search 1. Computerized database 2. Ancestry 3. Journal hand searching 4. Networking 5. Research registers	1. Identification of the problem 2. Literature search/ review stage 3. Evaluate data 4. Analyse data under the following headings: "data Reduction, data display, data Comparison, conclusion drawing and verification" 5. Disseminate findings	Detailed data analysis stage into five sub categories	Thematic analysis
De Souza et al. 2010	To present integrative review methodology and highlight critical activities in conducting integrative reviews	This method presents a way of analysing studies and synthesizing significant results for practice. Search 1. Electronic databases 2. Manual journal search 3. Ancestry 4. Networking 5. Gray literature	1. Formulate review question 2. Search literature and include 3. Extract data from studies 4. Analyse studies critically 5. Discuss results 6. Disseminate the study findings	1. Stated Levels of evidence 2. Provided a detailed and validated data extraction instrument.	Did not state any method of analysis but evaluated the level of evidence of articles involved.

4.2 Integrative Review Research Framework for a Master's Degree Research Report



DISCUSSION

An integrative review is conducted to appraise the quality of scientific research, discover gaps in what is already known, infer generalisation of a phenomenon, identify central themes and make connections between related areas of specialisation. It helps to formulate research questions, identify theoretical and conceptual frameworks in a research area, propose the need for future research and explore the research methodology used (Cooper, 1982; De Souza & Carvalho, 2010; Ganong, 1987; Russell, 2005; Torraco, 2005; Whitemore & Knafl, 2005). All integrative review frameworks made tremendous contributions to integrative review methodology (Cooper, 1982; De Souza & Carvalho, 2010; Ganong, 1987; Russell, 2005; Torraco, 2005; Whitemore & Knafl, 2005). However, none of the methods is comprehensive enough to produce a detailed review of the literature. Most frameworks were presented in five broad stages (Cooper, 1982; Torraco, 2005; Whitemore & Knafl, 2005). Russell (2005) only paraphrased Cooper's stages. Torraco (2005) added justification of the integrative review methodology to what Cooper (1982) presented and omitted the presentation phase. Whitemore & Knafl (2005) expanded the data analysis stage of Cooper's framework. De Souza et al. (2010) conceptualised the integrative review into six stages by adding data collection as a unique stage. Ganong (1987) on the other hand produced a ten (10) stage comprehensive phases explicitly stating processes at each stage. Ganong (1987) recommended that the reviewer provides the reader with information about the studies reviewed but did not propose any means of evidence rating nor the quality assessment of primary studies included. De Souza et al. (2010) used a validated data collection instrument (Ursi & Gavão, 2006). Whitemore & Knafl (2005) expanded data analysis phase (data reduction, data display, data comparison, drawing conclusions and verification). Cooper (1982) proposed practical ways of protecting validity in integrative reviews. Both quantitative (meta-analysis) and qualitative (thematic analysis) analytical procedures were proposed for integrative reviews depending on the articles included.

The Conceptual Phase

The conceptual phase is the stage encompasses chapter one and two of the research report which in turn comprises the phases one, two, four and five on Ganong's (1987) integrative review framework (Kpodo, 2015).

The Empirical Phase

The empirical phase engulfs chapter 2 of the research report which comprises phases three, six and seven. This phases deal with data search, evaluation, inclusion, and extraction. It covers Ganong (1987) phases 3, 6 and 7.

The Interpretive Phase

This phase comprises chapters four and five of a research report which in turn comprises of Ganong (1987) phases 8 and 9. This phase analysis data, draws conclusions and makes recommendations.

The Communication phases

The communication phase is the phase that disseminates the findings of a research conducted. This deals with writing the research report and publishing journal and conference papers from

the review. It is the last phase of the research process and the last phase (phase 10) of Ganong (1987) integrative literature review framework.

CONCLUSION AND RECOMMENDATIONS

Integrative literature reviews are vital research methodology for a postgraduate research report as they give the student the foundation needed to take on doctoral studies in their chosen area of specialization. Ganong's (1987) stages fit into the research process and the research report formats and can be used effectively for a master's degree research. The integrative review framework for a master degree research report is comprehensive, systematic and easily applicable in conducting integrative reviews leading to the partial fulfilment of a master's degree in nursing and related fields of study.

It is recommended that the framework for conducting a comprehensive academic integrative literature review for use by master's students and supervisors in conducting integrative literature reviews leading to partial fulfilment of a master's degree in nursing and related fields of study. Further research and evaluation of the framework are needed to improve the framework and the integrative review methodology.

BIBLIOGRAPHY

- Adelaide University. (2014). Writing a research report. *The Australian Educational Researcher*, 13(3), 44–48. <http://doi.org/10.1007/BF03219269>
- Brink, H., Walt, C. Van der, & Rensburg, G. Van. (2013). *Fundamentals of research methodology for health care professionals* (Third Edit). Cape Town: JUTA.
- Carroll, C., Booth, A., & Cooper, K. (2011). A worked example of “best fit” framework synthesis: a systematic review of views concerning the taking of some potential chemopreventive agents. *BMC Medical Research Methodology*, 11(1), 29. <http://doi.org/10.1186/1471-2288-11-29>
- Carroll, C., Booth, A., Leaviss, J., & Rick, J. (2013). “Best fit” framework synthesis: refining the method. *BMC Medical Research Methodology*, 13(1), 37. <http://doi.org/10.1186/1471-2288-13-37>
- Cooper, H. M. (1982). Scientific Guidelines for Conducting Integrative Research Reviews. *Review of Educational Research*, 52(2), 291–302. <http://doi.org/10.3102/00346543052002291>
- De Kock, L., & Levey, D. (n.d.). The Master's Dissertation and the Doctoral Thesis: A Guide to Research and the Organization. Retrieved August 15, 2016, from <http://www.unisa.ac.za/contents/courses/postgrad/docs/emasters.pdf>.
- De Souza, M. T., & Carvalho, R. De. (2010). Integrative review : what is it ? How to do it ? Revisão integrativa : o que é e como fazer, 8, 102–107.
- Ganong, L. H. (1987). Integrative reviews of nursing research. *Research in Nursing & Health*, 10(1), 1–11.
- Ham-baloyi, W., & Jordan, P. (2015). Systematic review as a research method in post-graduate nursing education. *Health SA Gesondheid*, 21(0), 120–128. <http://doi.org/10.1016/j.hsag.2015.08.002>
- Kpodo, C. J. (2015). *Best Clinical Nursing Education Practices in Sub-Saharan Africa: An Integrative Literature Review*. University of Witwatersrand. Retrieved from [http://wiredspace.wits.ac.za/bitstream/handle/10539/21191/BEST CLINICAL NURSING EDUCATION PRACTICES IN SUB-SHARAN AFRICA. AN INTEGRATIVE REVIEW.pdf?sequence=1](http://wiredspace.wits.ac.za/bitstream/handle/10539/21191/BEST_CLINICAL_NURSING_EDUCATION_PRACTICES_IN_SUB-SHARAN_AFRICA_AN_INTEGRATIVE_REVIEW.pdf?sequence=1)

- LoBiondo-Wood, G., & Haber, J. (2010). *Nursing research: methods and critical appraisal for evidence-based practice*. (G. & LoBiondo-Wood & J. Haber, Eds.) (7th Editio). St Louis.: Mosby.
- Rowan University. (2013). *Master 's Thesis and Doctoral Dissertation Manual*. New Jersey. Retrieved from https://rowanu.com/sites/default/files/documents/thesis-dissertation/AY2011_12MasterThesisDoctoralDissertationManual.pdf
- Russell, C. L. (2005). An overview of the integrative research review. *Progress in Transplantation (Aliso Viejo, Calif.)*, 15(1), 8–13.
- Sparbel, K. J., & Anderson, M. A. (2000). A continuity of care integrated literature review, Part 2: Methodological issues. *Journal of Nursing Scholarship : An Official Publication of Sigma Theta Tau International Honor Society of Nursing / Sigma Theta Tau*, 32, 131–135.
- Torraco, R. J. (2005). Writing Integrative Literature Reviews: Guidelines and Examples. *Human Resource Development Review*, 4(3), 356–367. <http://doi.org/10.1177/1534484305278283>
- University of Sydney. (2001). Writing a Thesis Proposal: Independent Learning Resources. Retrieved from <http://sydney.edu.au/stuserv/documents/thesisproposal.pdf>
- University of Witwatersrand, F. of H. S. (2015). *Faculty of Health Sciences Postgraduate Information Booklet*. (F. of H. Sciences, Ed.) (2015th ed.). Johannesburg: University of Witwatersrand Press.
- Ursi, E. S., & Gavão, C. M. (2006). Prevenção de lesões de pele no perioperatório: revisão integrativa da literatura. *Revista Latino-Americana de Enfermagem*, 14(1), 124–131. <http://doi.org/10.1590/S0104-11692006000100017>
- Whittemore, R., & Knafl, K. (2005). The integrative review: Updated methodology. *Journal of Advanced Nursing*, 52(Broome 1993), 546–553. <http://doi.org/10.1111/j.1365-2648.2005.03621.x>