



Analysis and Use of Different Research Review Approaches in Nursing

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A significant increase in nursing research is being conducted as the nursing profession shifts from “ritual” clinical decisions to practice based on research evidence. Evidence-based practice is now an accepted, essential foundation for high-quality patient care. Initially, best practice was based on a few randomized, controlled trials that reflected similar clinical problems. However, with the plethora of nursing research to date, evidence-based nursing practice currently is grounded in summaries of research or research reviews, resulting in robust findings used in the development of clinical guidelines. Several terms exist for reviews, such as literature, integrative, systematic, meta-analysis, and metasynthesis. Similarities can be noted among the types of reviews; however, the objectives and goals of each method differ and the terms should not be used synonymously. This article will define each of the literature and research reviews and discuss methodologic procedures for conducting each method.

Literature Review

A literature review is a critical analysis of prior research studies related to a selected area of study. The review is dictated by the research objective, problem, or hypothesis, and involves examining, evaluating, summarizing, and comparing each of the pertinent prior research studies. The literature review should convey to the reader what is known about a research or clinical topic, gaps in the literature, and strengths and weaknesses of the studies presented in the review.

Multiple search engines are available to facilitate access to relevant articles. However, the critical issue is ensuring that the topic is covered adequately (Cleary, Hunt, & Horsfall, 2009). Strategies to as-

sist with a review include selecting key terms; determining databases and date ranges; identifying inclusion and exclusion criteria; establishing a systematic approach for reviewing each article; noting theoretical foundations, methodologic strategies, and findings and conclusions; documenting search steps; and using multiple search engines (Polit & Beck, 2012). Wu, Aylward, Roberts, and Evans (2012) examined the use of two different electronic search engines to obtain a review of two psychological disorders. Results indicated that key words differed between the search engines, and the search engines produced a significantly different proportion of relevant articles, which highlights the importance of employing multiple search engines to create a high-quality literature review.

Integrative Review

The goal of an integrative review is to present the state of the science and contribute to theory development and clinical practice by summarizing past empirical or theoretical literature concerning a particular phenomenon or problem (Whittemore & Knafl, 2005). Reasons for conducting integrative reviews may include defining concepts, reviewing theories and evidence, and analyzing methodologic issues. The final report summarizes results from previous studies, identifies knowledge gaps pertaining to the phenomenon, and identifies areas for future research. This type of review is the only method that allows for the summarization of varied methodologies, such as experimental and nonexperimental research. The integrative review, given the breadth of prior research reviewed regarding a phenomenon, may have a significant role in developing evidence-based nursing practice (Whittemore & Knafl, 2005). However, as a result of

combining and summarizing diverse methodologies, performing the integrative review can be challenging and requires a meticulous approach to enhance the rigor and accuracy of the conclusions (Crossetti, 2012).

Whittemore and Knafl (2005) proposed a five-step process for conducting an integrative review: (a) problem formulation, (b) data collection or definitions for a literature search, (c) data evaluation, (d) data analysis, and (e) result presentation and interpretation. Problem formulation involves the identification of the purpose, problem, variables of interest, and sampling framework. The literature search and data collection include a comprehensive, computer-assisted search using the key words or problem of interest. Limitations in computerized databases exist because of inconsistencies with search terminology, and may only retrieve about 50% of eligible studies (Whittemore & Knafl, 2005). Other approaches include performing an ancestry search or reviewing the reference lists of retrieved studies, networking, and searching research registries. Data evaluation involves the assessment of overall quality of the studies. Quality scores may be assigned; however, this may be complex to perform with different methodologies. Whittemore and Knafl (2005) suggested reviewing the quality of sources with discrepant findings or evaluating quality using techniques of theory analysis; however, additional research is needed to develop proposed strategies in assessing multiple research designs. The purpose of the data analysis stage is to review the data from primary sources and categorize and summarize

ONF, 41(2), 207–208.

doi:10.1188/14.ONF.207-208

the findings into a cohesive conclusion. A constant comparison method is recommended, involving data reduction and extraction to determine an overall classification system; data display to assemble the extracted data into subgroups; data comparison, which involves the identification of patterns, themes, or relationships among the subgroups; and conclusion drawing and verification for a comprehensive summary of the topic of concern (Whittemore & Knafl, 2005).

Systematic Review

The goal of the systematic review is to identify, evaluate, and summarize findings from individual studies based on an exact scientific design that is prespecified and reproducible, thereby reducing bias (Institute of Medicine, 2011). With this approach, the findings from the review are a robust, reliable appraisal of an intervention's effectiveness, and can be applied to answer clinical practice issues (Polit & Beck, 2012). The key steps in a systematic review include the selection of predefined objectives and eligibility criteria for studies, a reproducible methodology, a systematic search targeting all studies that meet the eligibility criteria, an evaluation of the validity of the study findings, and a synthesis and presentation of the findings of the included studies. Systematic reviews may include meta-analysis and metasynthesis. A meta-analysis integrates findings from quantitative research, using the key elements and procedures in a systematic review. A metasynthesis integrates findings from qualitative research and attempts to examine and interpret essential elements of a phenomenon. Some procedures for a metasynthesis are similar to those of a meta-analysis; however, differences exist in evaluating study quality and analyzing and interpreting data (Polit & Beck, 2012).

In this issue of the *Oncology Nursing Forum*, an integrative review was conducted to define and explore the phenomenon

of meaning-making for patients undergoing hematopoietic cell transplantation for hematologic malignancies (Adelstein, Anderson, & Taylor, 2014). Using the five-step process by Whittemore and Knafl (2005), Adelstein et al. (2014) describe their procedures for identifying the problem of meaning-making for this population, as well as determining the search strategies through databases and an ancestry search on the research studies obtained from the initial search, inclusion dates, and key terms. The quality of the studies was described and the themes were extracted and discussed, which offers oncology nurses a narrative depiction of meaning-making interventions in the care of patients undergoing hematopoietic stem cell transplantation.

Several review methods are available to summarize existing quantitative and qualitative research studies and have notable similarities and differences. Because nursing acts as both a science and an art, reflected in nursing literature with blends of quantitative and qualitative research, the integrative review offers a strategy fitting for the oncology nursing specialty, as exemplified by Adelstein et al. (2014). As with any research study development, knowledge of and meticulous compliance with each method is critical. Approaching a review method in the same manner will yield robust findings for clinical practice, as well as knowledge and theory development in nursing.

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Key words: nursing research, nursing research qualitative, nursing research quantitative, research utilization

Methods & Meanings

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