Opportunities for Mixed-Method Designs in Nursing Research

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Despite growing interest in the integration of qualitative and quantitative designs (ie, mixed-method) in healthcare research, no major health services journal has devoted an entire issue to the topic. This is about to change. The December 2013 issue of Health Services Research is partnering with the federal Agency for Healthcare Research and Quality (AHRQ), calling for papers that use mixed-method research to spotlight the implementation and effects of recent changes in healthcare delivery. The aim of the special issue is to enhance researcher, funder, and policy maker understanding of how the methodology can be applied to enrich, and to promote its expanded use specifically in, health services research. Papers that illustrate examples of care delivery design, payment, and reporting are being sought. This initiative should be of particular interest to the majority of readers of OWM, because in past decades nursing research has been dominated by quantitative studies in pursuit of “the science” of healthcare.

Although mixed-method research has been defined in various ways, for purposes of the AHRQ initiative, it is “combining and systematically integrating quantitative and qualitative methods in a single study to obtain a fuller picture and deeper understanding of a phenomenon.”

One of the biggest arguments for intentionally combining two or more methods of data-gathering and analysis is to achieve synergy from complementary data. By integrating and subsequently analyzing different methods, the weaknesses of one approach can be mitigated by the other and vice versa. This is especially helpful in overcoming the inherent biases in highly structured methods. Other advantages include: 1) the ability to enhance theoretical insights, such as through the use of multiple sources to converge on the truth (ie, triangulation); 2) the development of a body of evidence for a new practice protocol that relies on multiple, incremental feedback loops; 3) the enhancement of validity of study findings through corroboration by multiple methods; and 4) the exploration of new horizons in discovery by pushing through otherwise incongruent findings of separate investigations.

Mixed-method research designs fall into one of two broad categories: component (three types) or integrated (four types). These are described in Table 1.

An example of a component design is a survey to collect quantitative information about a target patient population, followed by in-depth personal interviews with a randomly selected sample of respondents aimed at amplifying answers to survey questions to more fully understand why patients feel as they do. This process was followed by the NAFC in its recent examination of female patient experiences seeking diagnosis and treatment for pelvic organ prolapse. However, research was undertaken as separate steps independent of each other rather than synergistic ones concomitantly and planned

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An example of an integrated design is instrument development and refinement in which data are blended and integrated at all phases of the process so elements from one model, or paradigm, are used to construct another that amplifies data reinforcement and thus provides an iterative consensus of understanding.

Mixed-method methodology is not intended as a means of “fixing” a research plan with a series of simple steps when complex health and social issues demand a complex design at the outset. Using mixed-method research comes with some caveats. For example, new themes can emerge in a subsequent design that may obviate rather than clarify the truths sought by the researcher. Others argue fundamentally with the concept of mixing qualitative with quantitative methods, believing their separate paradigms to be too unique to be blended in a single study. The researcher must be prepared to address such objections in advance.

Nursing research is naturally predisposed to be patient-centered; as such, it lends itself well to mixed-method design because of the closer relationship between nurse and patient in the delivery of care, as well as the vagaries of trying to categorize people data. Understanding and appreciating how mixed-method research can identify and capture the feelings, sentiments, and circumstances of the patient as the unit of study can contribute to the researcher’s interpretation of quantitative, clinical data. This can be especially valuable in understanding the attitudes of patients toward bladder and bowel control, the forces and belief systems that impact health-seeking behavior, and influences on compliance with behavioral strategies in symptom management.

So, the next time you have a research question, step back and think about the opportunity to apply a more robust means of answering that question, including the application of mixed-method research methodology. I, for one, am a champion of its use.

References