Promoting Publication of Rigorous Qualitative Research

Harlan M. Krumholz, MD, SM; Elizabeth H. Bradley, PhD; Leslie A. Curry, PhD

In the basic sciences, investigators frequently conduct descriptive studies as a prelude to formulating and testing hypotheses. These discovery studies can be quite unbounded at the outset as investigators accumulate novel information that will serve as the building blocks for future studies. In the clinical sciences, descriptive studies are also common, but they are almost always based on data collected as standardized variables using quantitative methods. Such an approach implies either that available data are sufficient or that we have enough knowledge to define the precise data that are required. However, in many cases, we are in a more formative phase of understanding a given research area, particularly when we study healthcare delivery and issues relating to complex clinical care, rather than whether a drug, device, or clinical strategy produces a specific effect. When we are in an early phase of understanding a research question, qualitative methods may be the best approach. And yet, research that uses qualitative methods is infrequently published in the mainstream medical literature.

There are many possible explanations for this relative absence. Few individuals may be gaining the necessary skills to pursue this type of research, as training opportunities and teachers are scarce in typical research training programs. Few investigators may be obtaining funds to pursue qualitative research, as large medical research funding organizations issue only a small number of direct calls for this type of work. Finally, journals may not be interested in research based on qualitative methods.

We believe that, when used appropriately and with scientific rigor, qualitative methods can play a critical role in advancing the fields of biomedical research, health services research, outcomes research, and implementation science. The well-established standards for qualitative methods provide guidance about what constitutes a high-quality design. More than 22 guidelines that address the publication of qualitative studies have been synthesized to produce the Consolidated Criteria for Reporting Qualitative Studies, which is similar to other reporting checklists (Consolidated Standards for Reporting Trials and Quality of Reporting of Meta-Analyses) to support the aim of transparency in research methods; a 32-item checklist recommends that authors report content in the 3 key domains of research team and reflexivity, study design, and data analysis. When a research question would best involve qualitative research methods and a study is conducted according to these standards, this journal would welcome this approach.

Qualitative research is defined by a substantial body of literature from multiple disciplines and has been applied in the study of health and health care since the mid-1990s. The methods can be used to understand complex social processes, organizational change, individual health behaviors, and nuanced aspects of environmental context that influence quality of care, healthcare delivery, and health outcomes for individuals and populations. The role that qualitative research can play is exemplified in our National Institutes of Health-funded study on strategies to improve door-to-balloon times. At the time of the study, there was considerable uncertainty about the determinants of timely treatment. We knew that some institutions achieved remarkable times, but we did not know which questions needed to be asked or which processes were involved in order for their performance to be replicated elsewhere. Consequently, we designed a qualitative study, using inductive methods, to characterize the practices and experiences at these institutions. Our research partners had expertise in qualitative methods and helped to ensure scientific rigor commensurate with that of a quantitative design. The study produced insights that would not have been possible with a quantitative design. Moreover, we gained critical information that guided subsequent quantitative studies and formed the foundation of national initiatives that contributed to a remarkable improvement in the timeliness of treatment.

Techniques recognized by qualitative and mixed methods experts to enhance validity and reliability have been well described. Most importantly, researchers should ensure that there is adequate and authentic representation of qualitative expertise on the research team at the inception of a study and that this expertise is sustained throughout the life of the project. Reviewers observe the following common problems in manuscripts that report qualitative studies: lack of a compelling rationale for a qualitative approach; insufficient detail regarding the methods, eg, sampling, data collection, and analysis; reports of findings that are not novel and lack nuance and depth that are characteristic of sound qualitative research; and ineffective writing, including excessive jargon, poor or inappropriate methods citations, and failure to integrate narrative data with interpretive text.

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Editor’s Perspective

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At a systems level, efforts to increase the quality, visibility, and impact of qualitative research face several challenges. First, there is a need for education and awareness within the clinical
and health services research communities regarding the value and rigor of qualitative methods. Possible mechanisms include enhanced curricula in schools of medicine, public health, and nursing; fellowship programs to support training in qualitative and mixed methods; workshops within scientific and professional meetings; and national and international training institutes. Second, scientific peer-reviewed journals must identify and cultivate qualified reviewers who are willing to conduct informed reviews of manuscripts that use qualitative methods. Numerous criteria for the systematic assessment of the soundness of qualitative methods are available to reviewers. Third, academic institutions and funders should explicitly recognize and support qualitative research. Accomplished investigators are increasingly collaborating in multidisciplinary teams that include professionals from the fields of anthropology, statistics, economics, nursing, public health, and medicine to apply the strengths of complementary methods to the study of complex questions in health care.

There are promises and vulnerabilities inherent in both qualitative and quantitative methods. We advocate for greater openness toward and inclusion of scientifically sound qualitative studies in the mainstream clinical and health services literature. These discovery studies may serve to strengthen subsequent work that ultimately will test hypotheses and create knowledge to improve health and health care.

We want to signal the openness of our journal to publishing studies that use a range of designs optimally suited for a particular research question, provided that the research addresses important questions, is conducted in accordance with established standards, and is conveyed in high-quality, well-written contributions. We consider qualitative research designs and mixed methods research a highly effective component of our portfolio—and one that ought to be deployed to a greater extent.

Disclosures
Dr. Krumholz is supported by grant U01 HL105270-03 (Center for Cardiovascular Outcomes Research at Yale University) from the National Heart, Lung, and Blood Institute. He is the recipient of a research grant from Medtronic, Inc. through Yale University and is chair of a cardiac scientific advisory board for UnitedHealth. The other authors have no conflicts to report.

References
2. Bradley EH, Curry LA, Devers KJ. Qualitative data analysis for health services research: developing taxonomy, themes, and theory. Health Serv Res. 2007;42:1758–1772.
17. Pope C, Mays N. Reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research. BMJ. 1995;311:42–45.