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Users' Guides to the Medical Literature: XXIII. Qualitative Research in Health Care B. What Are the Results and How Do They Help Me Care for My Patients?

[The Medical Literature]

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Abstract

The second part of this 2-part series on how to interpret qualitative research addresses, "what are the results," and, "how do they help me care for my patients?" Qualitative analysis is a process of summarizing and interpreting data to develop theoretical insights that describe and explain social phenomena such as interactions, experiences, roles, perspectives, symbols, and organizations. Key results are often illustrated with excerpts from interview transcripts, field notes, or documents. The results of a qualitative research report are best understood as an empirically based contribution to ongoing dialogue and exploration. Empirically based theory evolves from a process of exploration, discovery, analysis, and synthesis. Each concept should be defined carefully in a way that is meaningful to the reader. Concepts should be adequately developed and illustrated when theoretical conclusions are drawn. Arguments should be explained and justified. The qualitative research report ideally should address how the findings relate to other theories in the field. The qualitative

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study can provide a useful road map for understanding and navigating similar social settings interactions, or relationships.

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In the first of this 2-part article on using qualitative research [1](#) we described a hospital's continuous quality improvement committee initiative to introduce a medical form designed to enhance patient-clinician communication about cardiopulmonary resuscitation. The clinician in this scenario wondered whether the impact of introducing such a document had been evaluated with respect to its influence on patient-clinician communication. She found the study by Ventres et al [2](#) and critically appraised its validity.

The objective of the study was to examine how a limitation of medical care form affects resuscitation dialogue among patients, their families, and resident physicians. The investigators collected data through participant observation, audiotapes of life support discussions, and semistructured interview. Participants included patients, family members, nurses, social workers, clergy, and resident physicians. The article analyzes thoroughly the decision-making discussions concerning 3 of 8 patient cases studied. Analytic rigor is demonstrated by the corroboration (triangulation) of findings among different sources of data, multidisciplinary investigators, and critiques of the analysis by study participants. Although many perspectives were incorporated in this study and 3 cases were considered comprehensive, the breadth was probably too narrow to capture the diversity of communication and decision-making styles concerning end-of-life treatment. In the second part of this Users' Guide on how to interpret qualitative research, we will address the questions: What are the results of this study? and, how do the results help me care for my patients?

WHAT ARE THE RESULTS OF THE STUDY?

In summary, Ventres and colleagues [2](#) found that use of the limitation of medical care form, which is intended to facilitate decision making, can routinize the clinician-patient dialogue to meet bureaucratic needs, narrowing rather than enhancing communication about resuscitation. After outlining the foundation of the results of qualitative research reports below, we describe the results of that study in more detail.

The goal of qualitative research is to develop theoretical insights that describe and explain social phenomena such as interactions, experiences, roles, perspectives, symbols, and organizations. Qualitative analysis is foremost a process of summarizing and interpreting data, "based on the value of trying to represent faithfully and accurately the social worlds or phenomena studied." [3](#) A good qualitative report will be received as robust and truthful across multiple perspectives (ie, those of study participants, authors, readers, colleagues). Broad endorsement does not make the findings infallible but helps to establish that the analysis offers a meaningful approximation to the truth of a

Illustrated?

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social phenomenon.

Qualitative results contain description and theory. Reports typically present these in an integrated fashion, by describing key theoretical insights and illustrating them with descriptions from the data. Readers can judge the importance and usefulness of the findings by asking how evocative and thorough the descriptions are, as well as how comprehensive and relevant the theoretical insights are.

How Evocative and Thorough Is the Description? ↑

The product of a qualitative study is a narrative. It describes a social phenomenon and draws theoretical insights (and sometimes practical lessons) in conclusion. The writing style should be clear, accessible, and "tell the story" well. A good qualitative report provides enough descriptive detail to evoke a vivid picture of the social setting or interactions studied. To do this, authors usually illustrate key findings with data excerpts from field notes, interview transcripts, or documents. These data should clearly support the main points and offer contextual detail. The use of examples and reference to sources gives the reader insight into the nature of the social phenomenon as well as the sensibility of how investigators interpreted it. Because of the importance of detail in qualitative reports, some health research journals allow substantially longer page limits for qualitative studies. However, longer articles are not necessarily superior. Unfocused analyses, weighted too heavily with description, can obscure the study's main focus. At the other extreme, theoretical treatises that do not include adequate support by providing illustrative data and empirical description may raise questions about the extent to which the findings were derived from the evidence.

In their results section, Ventres et al tell the story by recounting the case histories of 2 patients and those involved in their care. These 2 scenarios are organized chronologically (rather than conceptually), which helps draw the reader into the events and discussions as they unfold. The narratives are liberally illustrated with excerpts from interviews and taped discussions, which give readers more intimate insight into the situations studied. The excerpts also support the authors' interpretations of the structure of these life support discussions (ie, as involving characteristic content, dyadic conversation, and pervasive ambiguity). Although the exposition is restricted to 2 cases and selected excerpts, the information is rich and coherently organized.

How Comprehensive and Relevant Are the Theoretical Conclusions? ↑

Qualitative inquiry aims to develop theoretical conclusions. Some systematic approaches to theory development are described. [4-7](#) However, there is no correct approach. Whatever the system, the investigators' training, perceptiveness, creativity, and intellectual discipline will also play a role. [8-9](#) The critical analysis of social theory commands extensive attention in the humanities and social sciences, much of which is beyond the scope of this Users' Guide. Basically, to be meaningful and useful, a theory should be adequately comprehensive and relevant.

Comprehensiveness ↑

Theoretical findings must be well reasoned and coherent. Elder and Miller [10](#) suggest that coherent theory possesses the qualities of parsimony (invokes a minimal number of assumptions), consistency (accords with what is already known and inconsistencies are well explored and

explained), clarity (expresses ideas evocatively and sensibly), and fertility (suggests promising directions for further investigation). On a concrete level, narrative arguments should be logical and plausible, metaphors should provide useful analogies, and illustrative frameworks such as diagrams should meaningfully label the elements and relationships depicted.

Readers could think of theory as having a kind of anatomy and should examine each of its parts to understand its contribution to knowledge. Theory consists of concepts and their relationships. Furthermore, empirically based theory evolves from a process of exploration, discovery, analysis, and synthesis. In its final form, empirically based theory relates clearly to the data and makes a contribution to theoretical knowledge in the field. Readers can examine these 5 aspects of theory by asking the following corresponding questions.

What Major and Minor Concepts Does the Theory Entail, and How Well Defined Are They?



Concepts are the basic building blocks of theory. Sometimes (but not necessarily) concepts will be organized hierarchically, with 1 overriding concept (perhaps a useful metaphor), a few broad categories within it, and a series of subcategories within those. It is possible for qualitative concepts to overlap or to be related in a nonhierarchical structure such as a web of interrelationships. Taxonomies and domain descriptions are conceptual frameworks that commonly appear in the biomedical literature. Whatever their number and form, each concept should be defined carefully and in a way that is meaningful to the reader.

What Are the Relationships Between the Conceptual Categories, Are These Dynamics Clearly Described, and Do They Make Sense?



These questions focus on relationships between concepts. Such dynamics may take a form similar to quantitative relationships between variables (eg, changes in one variable causing an increase or decrease in another). Alternatively, categories may have qualitative effects on each other (eg, one phenomenon may frame the form that another may take).

Are the Concepts Adequately Developed and Illustrated?



Several devices may be used to explain how the theoretical conclusions were drawn. For example, a report may describe chronologically the experience of entering the field and from there lead the reader through the key discovery experiences that form the backbone of the author's findings (however this approach is not appropriate for all studies, such as document analysis or the study of familiar settings). Theory can also be explained and justified using other rhetorical devices, such as argument. Conceptual frameworks are strongest when their categories or variables embrace a full range of empirical phenomena observed. Illustrative data excerpts offer glimpses into the analytic process, but these glimpses help demonstrate how the investigators interpreted the data. If the illustrative examples do not seem to fit well with the interpretive explanation, the validity of the rest of the analysis comes into question.

Where Does the Empirically Generated Theory Fit in Relation to Existing Theory and Beliefs in the Field?



Readers should look for whether the results of a qualitative research report address how the findings relate to other theory in the field. Empirically developed insights need not agree with existing beliefs. Whether they agree or not, the findings' relationship to prevailing theories and

beliefs should be addressed in a critical manner. Qualitative approaches vary with regard to the role that theoretical literature plays: some methods use existing literature to guide empirical work, whereas others do not address the literature until after empirical findings are established. [5](#), [11](#) In either case, the report should indicate how the findings relate to scholarship in the field.

Ventres et al [2](#) offer relatively pragmatic theoretical conclusions about how an administrative form can reflect and reinforce mechanistic objective-oriented dialogue to the neglect of patient needs, values, and beliefs. In this study, the hospital's Limitation of Medical Care form was used as both the foundation for dialogue and the vehicle for expression of patient wishes. Ventres et al describe how the form, together with conventional physician communication styles, can have the adverse effect of structuring conversations to obstruct candid conversation and obscure patient and family wishes. To help the clinician best, the study might have developed a more comprehensive model of communication about life support or of how administrative forms express (or suppress) meaningful health directives. Ventres et al [2](#) do not develop their theoretical conclusions to this degree. Rich description with relatively light theorizing is typical of many ethnographic or naturalistic studies, and this appraisal does not by any means indicate a scientific failing of the research. However, it may limit the usefulness of the research for the clinician's purposes. We should also note that this type of qualitative study does not feed directly into a hypothesis-testing research program, because it does not put forth specific variables or causal relationships to be tested. This limits neither the research's usefulness nor its scientific contribution, and this study demonstrates well the value of qualitative studies for the purposes of enlightenment. Although the report offers modest formal theory, it does offer credible, evocative evidence of the sorts of dynamics that can occur during life support discussions. The illustrative excerpts and interpretive descriptions offer the clinical readers a vicarious experience and a unique vantage on interactions among patients, families, physicians, and medical forms.

The study's findings allow the practicing clinician to stand back from the clinical encounter and view some common communication dynamics from a more critical distance. Normally, clinicians are directly involved in their discussions with patients and families, and cannot both participate actively in a conversation and analyze it objectively. Clinicians reading the study by Ventres et al may recognize in the scenarios something of themselves, the people they care for, and the administrative forms they use. It may be surprising and affirming to see graphic evidence that inanimate medical forms can "participate" in discussions and control what can be said and heard. The theoretical insight that such medical forms can play an active role in communication may help clinicians recognize this dynamic in other settings. This qualitative evidence provides a cautionary tale of how medical forms can do more than promote administrative efficiency.

Relevance

The results of a qualitative research report are understood best as an empirically based contribution to ongoing dialogue and exploration, rather than as documentation of an invariant fact. The dialogue affects the meanings of social experiences, and the results of a dialogue translate these experiences for persons who might not otherwise understand each other's perspectives well. The relevance of the results of a qualitative article depends partly on its ability to communicate how well the investigators and the study participants communicated and how well the results of their communication is conveyed to the readers of the report. Each of these parties should be involved actively in making sense of the research results. [10](#)

The results of the study by Ventres et al [2](#) translate the perspectives of participants (patients, families, resident physicians, and clinicians involved in end-of-life decisions) and the readers of the research. For clinicians who are not routinely engaged in end-of-life decisions, these results offer a windowlike view that provides insight into a clinical world many clinicians do not enter. For clinicians more involved in end-of-life decisions, this study offers a view more analogous to a mirror that reflects familiar interactions in a way that allows clinicians to examine their own role, other participants' roles, and even the role of a medical form in determining how end-of-life decision making unfolds. Operating either as window or mirror, valuable perspective can be gained from qualitative evidence. The study highlights the potential tyranny of administrative forms when they are used to structure sensitive personal discussions.

HOW DO THE RESULTS OF THIS STUDY HELP ME CARE FOR PATIENTS?

In their descriptive role, qualitative research findings can enhance awareness of social dynamics in the clinical setting. As illustrated by Ventres et al, [2](#) social dynamics can influence powerfully the process of care and consequently the outcomes. The more clinicians and patients are conscious of social factors at work in health care, the more constructively they can use them or change them in the pursuit of health and healing. In their theory-generating role, qualitative findings provide models for understanding. These models can be used to analyze similar situations and, similar to all models, help to simplify clinicians' understanding of complex phenomena. Qualitative studies may give clinicians insight into the experiences of patients and their families.

Does This Study Help Me to Understand the Context of My Practice?

One criterion for the generalizability of a qualitative study is whether it provides a useful road map for readers to understand and navigate similar social settings themselves. The North American cultural value of autonomy was encoded in 1991 by Congress in the Patient Self-Determination Act. Since then many health care systems have created documents such as advance directives and other decision-making tools to systematize conversations about end-of-life care.

The article by Ventres et al [2](#) invites us to contemplate this policy trend critically. Readers may reflect on how business metaphors have infiltrated clinical practice, and how these types of resuscitation documents symbolically contractualize health care at the end of life, especially when patients are referred to as "clients," and health care workers as "providers." In this study, discussions about resuscitation were intervention specific, focusing on a series of basic and advanced life support technologies, in part due to the task-oriented prompts of the limitation of medical care form. One family member of a patient who was unable to speak for himself explained that "resuscitation was not appropriate in Indian culture." [2](#)(p139) The resident continued to describe the technical details of resuscitation even after the family had made it clear that it was not desired, which made this family member feel as though the physician did not really trust the family's decision (or implicitly, their portrayal of his wishes, were he able to speak for himself).

Does This Study Help Me Understand My Relationships With My Patients and Their Families?



Interpretive research offers clinicians an understanding of roles and relationships. Many qualitative studies of interest to clinicians focus on communication among patients, families and caregivers. Other studies describe behaviors of these groups, either in isolation or during

interactions with others.

In the study by Ventres et al, [2](#) the acuity and severity of the patients' illness meant that dialogue typically occurred between resident physicians and family members instead of patients themselves. The small number of patients and resident physicians studied in a university hospital limits the range of discussion styles that were identified. Some clinicians may be more likely to have prior long-term relationships with patients than those developed among family practice residents involved in this study, allowing for such conversations to occur in the relative comfort of the out-patient setting rather than during an acute illness episode. Regardless of whether readers work with resident physicians (or are resident physicians themselves), a report such as this affords an opportunity for all readers to ask themselves frankly how they broach end-of-life discussions with hospitalized patients, whether they can relate to the communication styles described in the study, and if they can, what implications this has for their practice.

Some clinicians may tend to focus on the overall goals of care in ways that are culturally meaningful for patients, rather than consider discrete interventions, as were reported in this study. Some clinicians may revisit goals of health care periodically and not necessarily coincidentally with hospital admissions. The study by Ventres et al [2](#) can increase our self-consciousness about how well we listen to patients and families, what language we use when explaining resuscitation to them, how well we try to understand their values and preferences (especially when patients and surrogate decision makers give discordant messages), [12-13](#) and how clinicians may unwittingly influence patient wishes even as they try to discern those wishes.

SCENARIO RESOLUTION

Reflecting on the article by Ventres et al, [2](#) you cast your mind back to the continuous quality improvement committee meeting you attended this morning about patient-clinician communication. Thinking about your hospital's proposal for a similar Limitations of Medical Care form you are concerned. You wonder to what extent introduction of this form might shift your own discussions with patients away from eliciting illness experiences and understanding values to a more stilted dialogue with patients or next of kin about technological aspects of basic and advanced life support.

You decide that at the next meeting you will share the evidence you found about routinizing conversations between clinicians and patients, should such a Limitation of Medical Care form be introduced. You plan to circulate the Ventres et al [2](#) article before the next meeting and recommend that the committee use it to help outline the potential advantages and disadvantages of introducing such a document in your hospital. Meanwhile, if this form is adopted, you plan to request that the committee evaluate its influence on end-of-life discussions, using multidisciplinary qualitative research methods.

The original list of members (with affiliations) appears in the first article of the series (JAMA. 1993;270:2093-2095). A list of new members appears in the 10th article of the series (JAMA. 1996;275:1435-1439). The following members of the Evidence-Based Medicine Working Group contributed to the article: Gordon H. Guyatt, MD, MSc, Daren Heyland, MD, Anne Holbrook, MD, MSc, Virginia Moyer, MD, MPH, Andrew D. Oxman, MD, MSc, and W. Scott Richardson, MD. Dr Cook is a Career Scientist of the Ontario Ministry of Health. Dr Giacomini is a National Health Research Scholar of Health Canada.

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