

Claiming our core: Appraising qualitative evidence for nursing questions about human response and meaning

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The growing acceptance of evidence-based practice (EBP) principles in nursing raises the possibility that only question domains central to medical practice—therapy, harm, prognosis, and medical diagnosis—and “best evidence” appropriate to those domains will be valued. We propose incorporation of 2 additional question domains—human response and meaning—as particularly important for nursing practice, and we argue that the strongest evidence for these questions arises from qualitative research traditions. We discuss the evaluation and application of qualitative evidence for practice and identify unresolved issues for further discussion within the discipline.

The application of evidence to practice by any discipline requires an understanding of the array of personal meaning contexts that influence patient values and, therefore, patient decisions. Personal meaning contexts include intrapersonal and interpersonal characteristics and values of individuals, as well as social and cultural influences. In addition to the understanding of patient values necessary for any evidence-based practitioner, nurses have a particular focus on the human responses of persons encountering health situations. Although human responses and meaning contexts are unique for each individual and situation, nurses have a body of evidence for practice that assists them in recognizing the range of possible human responses and contexts. This recognition, in turn, facilitates empathetic, effective, and holistic care. In this article, we propose a strategy for appraising and applying human response and meaning evidence within the methods developed for evidence-based practice (EBP).

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STRENGTH OF EVIDENCE HIERARCHIES

There is growing understanding that different domains of clinical questions have different hierarchies of “best evidence.” The single strength-of-evidence pyramid that identified systematic reviews of randomized clinical trials (RCTs) as “best evidence” (for example, Melnyk and Fineout-Overholt¹) has now clearly been identified as the appropriate hierarchy for harm questions only. Ebell and associates² have defined parallel hierarchies for therapy, harm, prognosis, and diagnosis evidence. “Best evidence” for therapy questions now recognizes the particular value of a RCT performed on the patient for whom the evidence will be applied (n of 1 RCT). “Best evidence” for diagnosis and prognosis questions are systematic reviews of descriptive study designs—specifically, prospective cohort studies. For diagnosis, inclusion of a “gold standard” comparison is a particularly important design issue for strong evidence. For prognosis, adequate follow-up of the cohort is the salient design issue. These newer hierarchies of best evidence can be illustrated as a series of pyramids (Figure 1).

This understanding of the suitability of different types of evidence for different types of questions frees nurses from the need to insert qualitative research findings at some arbitrary mid-level of a single strength-of-evidence pyramid. Like our physician colleagues (Ebell et al²), nurses now recognize that randomized clinical trials are not the best evidence for all domains of clinical questions.

THE NATURE OF HUMAN RESPONSE QUESTIONS

Core clinical questions for nursing practice include the nature of human responses to health situations. Nurses need to recognize human responses to health situations in order to provide individualized, holistic care. Evidence derived from qualitative studies has great utility to address these needs. The human response question domain involves clinical questions about the ways people process and manage health issues in their everyday lives.

These responses are the defining core of the scope of independent nursing practice. The New York state

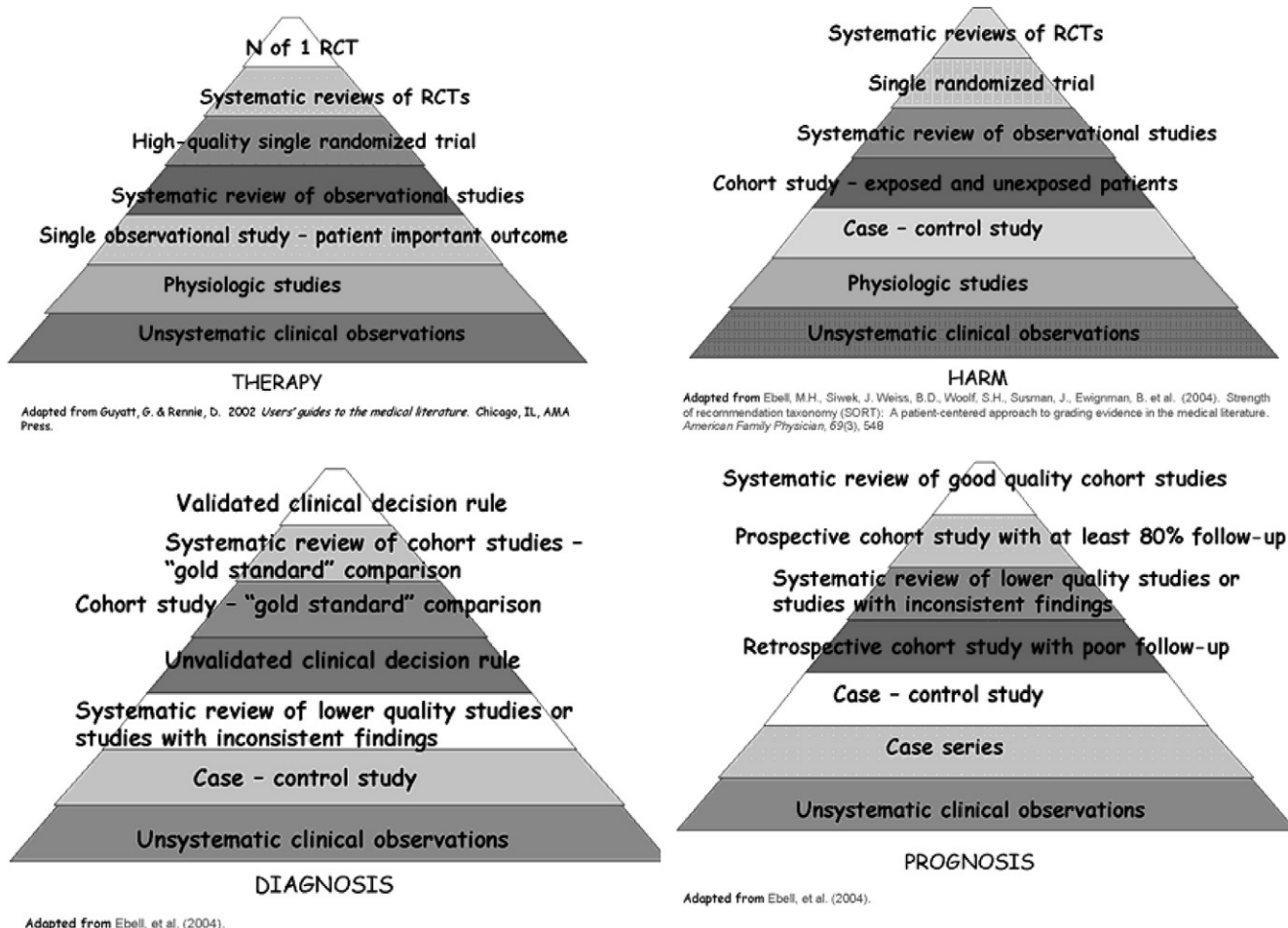


Figure 1. Strength of evidence pyramids for therapy, harm, diagnosis, and prognosis questions. Therapy and Prognosis pyramids reprinted from, Levin RF, Feldman HR, editors. *Teaching Evidence-based Practice in Nursing*, Copyright 2006. Reproduced with the permission of Springer Publishing Company, LLC, New York, NY 10036.

nurse practice act, which served as the basis for the definition of nursing in the American Nurses’ Association social policy statement,³ defines the professional practice of nursing as “diagnosing and treating human response to actual or potential health problems through such services as case-finding, health teaching, health counseling, and provision of care supportive to or restorative of life and well-being”⁴; p.690² and identifies human response as “signs, symptoms and processes which denote the individual’s interaction with an actual or potential health problem.”⁴; p.690¹

Human responses range from well-defined and measurable constructs like self-regulatory coping⁵ to processes for which currently we do not even have labels. Examples of clinical questions from the human response domain include, “How do parents react when their toddler is diagnosed with autism?” “How do families manage the experience of chronic mental illness?” and “How do adolescents deal with hair loss associated with cancer chemotherapy?”

This domain also includes clinical questions about the ways people process and manage encounters with

healthcare systems and providers and, conversely, how the healthcare system manages encounters with people. Examples of this type of question are: “How do pregnant women at risk for pre-term labor decide when to seek care for their symptoms?” “How do terminally ill patients transition from seeking cure to choosing palliative care?” and “How do nurses respond to the need to restrain patients in intensive care units?”

EVIDENCE HIERARCHY FOR HUMAN RESPONSE QUESTIONS

Because human responses are the foci of nursing diagnoses, Levin⁶ has suggested that human responses can be adequately incorporated into EBP through the question domain of diagnosis. As currently understood, however, that domain addresses questions of the sensitivity and specificity of diagnostic tests, signs, and symptoms as indicators of diseases with established medical diagnoses.⁷ Therefore, the strength of evidence hierarchy for (medical) diagnosis² favors approaches to knowledge embodied in quantitative descriptive research designs.

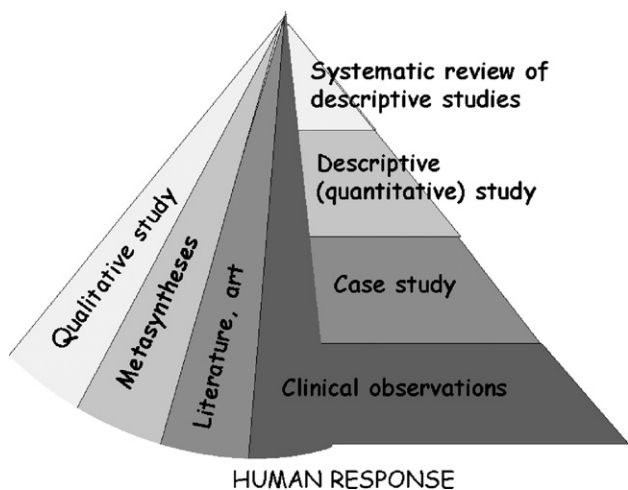


Figure 2. Strength of evidence pyramid for human response.

Within the holistic perspective that defines nursing interests, questions of human response and the evidence that addresses those questions need both quantitative and qualitative approaches. Figure 2 represents the strength of evidence pyramid we propose for the human response question domain.

The right, hierarchical, side of the model acknowledges that some human responses are sufficiently general and well-understood to be measured quantitatively. Instruments exist, for example, to categorize styles of coping⁸ and measure degrees of anxiety.⁹ For these human responses, sources of evidence would be quantitative research which can be ranked according to the quantity and consistency of findings and the methodologic rigor of the research design. “Best evidence” on this quantitative side of the pyramid follows the pattern of evidence for prognosis and diagnosis questions: systematic reviews of well-designed descriptive studies, followed by single descriptive studies of representative samples employing reliable and valid quantitative measures.

The left, non-hierarchical, side of the model addresses the many situations where knowledge of possibilities provides useful insight into the diverse range of human responses our patients may experience. Qualitative approaches to evidence are case-bound, but not method-bound: no specific qualitative research tradition or method necessarily provides stronger evidence than another. Although we believe that carefully done qualitative research studies and qualitative metasyntheses are the most intentional ways of providing interpretive evidence for human response questions, we acknowledge that useful insights can also arise from literature, art, and clinical observations.

APPLICATION OF HUMAN RESPONSE EVIDENCE TO PRACTICE

A major topic for critical appraisal of any study using EBP methods is considering how the evidence can be

applied to practice. Human response evidence has a general ability to enhance nurse-patient relationships through the nurse’s increased understanding of the patient’s experience. In addition, human response evidence supports the specific nursing practice activities of assessment, management, and evaluation.

Evidence about the quantitative probabilities or qualitative possibilities of human response to a given health situation may allow us to see the patient experiencing that situation in a “different light,” enhancing our assessment of the patient with additional relevant dimensions. For example, Kearney and Griffin’s¹⁰ study revealed that parents of profoundly disabled children experience hope and joy in their situation, as well as the anticipated anguish and sorrow. The nurse aware of this evidence would assess for these positive responses, as well as the previously expected negative responses among similar families.

Once the human response has been clearly identified through nursing assessment, the nurse may choose to intervene to modify some aspect of the response (management). Evidence from descriptive quantitative or qualitative studies could appropriately be applied to inform the content of counseling, anticipatory guidance, patient and family education, or some other intervention. Clinical questions about the ability of these interventions to accomplish the desired modifications in human response are therapy questions, and the strongest evidence to provide answers would come from randomized clinical trials.

Because human responses are at the core of nursing practice, evidence that identifies or clarifies human responses is also essential to evaluation of nursing actions. Descriptive quantitative or qualitative studies may identify aspects of human response indicating that health goals have been achieved. Nurses cannot adequately evaluate the outcomes they fail to recognize.

THE NATURE OF MEANING QUESTIONS

The meaning question domain involves clinical questions about ways in which people make sense of health concerns and illness events that arise in their lives. Because such concerns and events are inseparable from the entirety of individuals’ lived experiences, making sense of them involves the construction of personal answers to larger existential questions about meaning and purpose. Thus, patients’ unique and multidimensional understandings of their own health/illness experiences will be richer in detail than—and, at times, may be at odds with—clinicians’ biomedical understandings of disease causation, diagnosis, treatment/prevention, and prognosis. It follows that clinical effectiveness will be enhanced by insights into patients’ individual meanings of health and illness. The meaning of patients’ personal experiences with a disease process can influence their actions. Thus, the mother who believes she is

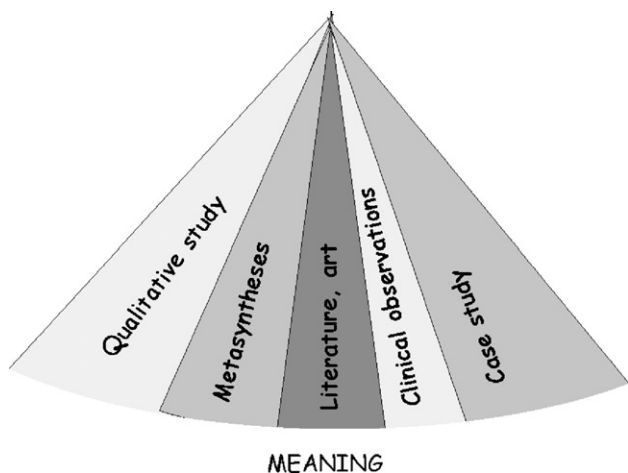


Figure 3. Strength of evidence pyramid for meaning.

the cause of her child’s disorder may be so guilt-ridden that she cannot parent this child effectively or participate in therapies to reduce the impact of her child’s disability.

EVIDENCE HIERARCHY FOR MEANING QUESTIONS

Figure 3 represents the strength of evidence pyramid we propose for the meaning question domain. Its design is nonhierarchical, for the same reason as given for the nonhierarchical left side of the Figure 2 model. And, as noted with reference to study types in Figure 2, we believe that carefully designed qualitative studies, case studies, and metasyntheses are the more rigorous examples of knowledge development in the meaning domain. But we also view artistic expressions and insightful clinical observations as credible evidence-producing modalities.

APPLICATION OF MEANING EVIDENCE TO PRACTICE

A basic assumption of EBP is that effective clinical decision-making combines evidence with knowledge of the patient’s values. Meaning evidence enriches clinicians’ abilities to discern and understand those values. When providers are aware of the range of meanings patients may bring to healthcare encounters, providers are more likely to look for evidence of what the illness experience means to each individual and tailor their own actions/responses accordingly.

The EBP assumption that effective clinical decision-making incorporates patient values implies that health care providers will incorporate the unique personal circumstances of patients into their care. The systematic inquiry of qualitative investigations may demonstrate how care is impeded when this assumption is not met. In a study of mothers who had experienced a traumatic birth, for example, Beck¹¹ reported that mothers perceived that their care providers viewed as routine what

for them was a traumatic event. This perception was based on caregiver behaviors that compounded the challenges of the women’s varied birth experiences. As a result, mothers perceived that nurses failed to communicate or to offer support and reassurance. They felt abandoned, invisible, and unsafe. They further perceived that only delivery of healthy babies was valued, causing their traumatic deliveries to be overlooked and ignored.

To clinicians focusing on best evidence in the domains of medical diagnosis, prognosis, therapy, and harm, the patient has a disease. But what is taking place with the patient is a uniquely personal illness event, a subjective experience that is neither governed nor subsumed by scientific knowledge about physiologic states and biologic responses. Knowledge of both disease states and illness concerns is necessary for a complete understanding of patient care needs. Qualitative studies enable providers to grasp the meaning of what their patients experience in their daily lives and, thus, promote both empathic relationships and patient-focused interventions that improve patient care quality. In addition, findings from studies like these improve assessment and anticipatory guidance to patients and families, based on providers’ enriched understanding of what others have experienced.

Meaning evidence can assist the clinician to recognize and understand his/her own meanings and values, as well as those of the patient. Varcoe, for example, conducted an ethnographic study of emergency room nursing in relation to violence against women.¹² The findings suggest that nurses’ stereotypic beliefs about the nature of abuse kept them from recognizing abuse unless there was significant physical evidence. When abuse was recognized, additional value judgments nurses made about the victim influenced the care nurses provided or withheld from their patients.

HOW IS THE MEANING DOMAIN DIFFERENT FROM THE HUMAN RESPONSE DOMAIN?

Our current view of differences between the 2 domains is that, whereas human response questions are ones that involve some sort of process (i.e., what persons do—how they process and manage different types of health-illness situations, including encounters with systems and providers), the meaning domain involves questions about individuals’ attempts to make sense of or come to terms with their circumstances (i.e., what persons subjectively think, believe, or feel about the significance of health and well-being for, or the impact of illness on, their lives). In other words, human response questions are about “how” or “what”, whereas meaning questions are about “why”.

CRITICAL APPRAISAL OF HUMAN RESPONSE AND MEANING EVIDENCE

Depicting strength of evidence in domains where the research interest is in causality or prediction (therapy, harm, prognosis, and diagnosis) readily lends itself to a hierarchical ordering of study designs with increasing levels of control over competing explanations or predictors. “Best evidence” then rests on the quantity, quality, and consistency of the research findings, and quality is strongly associated with the study design’s position on the relevant strength of evidence pyramid (Figure 1).

The 2 domains that we have proposed, however, where the research interest is in human subjectivity, do not lend themselves entirely to a hierarchical ordering of methodological approaches or specific study designs. The form of our strength of evidence pyramids for human response and meaning acknowledges that qualitative methodologies are not identical to those depicted in standard EBP domains and cannot be arranged into some preordained ascending ordering of quality. No qualitative methodology inherently produces truer, richer, or more useful findings than another. This raises an important question: When a pyramid is nonhierarchical, how do we determine “best evidence”?

Although differences among qualitative methodologies are not useful criteria on which to base evaluations of “best evidence,” qualitative researchers have discussed ways to examine study outcomes that could be useful in evaluating the strength of qualitative evidence. Typologies proposed by Kearney¹³ and by Sandelowski and Barroso¹⁴ both serve to shift the focus away from the particular research method or design and focus, instead, on the level of analytic abstraction and depth of interpretation embodied in the research findings. Kearney describes different levels of complexity and discovery and argues that higher levels of both support more active application of the findings to patients’ care.

Sandelowski and Barroso’s¹⁴ typology is similar to Kearney’s in the way it pays attention to the degree to which findings range from those that remain closest to the data (findings more exploratory in nature) and those where theorizing moves the findings farther from the data (in the direction of explanation). Both typologies claim that the usefulness/applicability of a qualitative study rests more in what comes out of the analysis than on the methods researchers say they used. Kearney¹³ identifies the clinician’s judgment as the most important element in determining the application of evidence from qualitative research. Although the issue of relative strength/utility of qualitative findings is now a topic of scholarly discussion, there is no clear consensus on how—or whether—to define a hierarchy. Therefore, our current choice is not to reify any

particular scheme by incorporating it into the meaning and human response pyramids.

For research from qualitative traditions, strength of evidence for practice is more closely aligned with whether the nature of the findings allows the clinician to determine their utility than with specific study design. Evidence from both qualitative and quantitative traditions, however, must be appraised for accuracy before it is applied. We have developed a critical appraisal worksheet for evidence for human response and meaning questions (Figure 4) that parallels the format of worksheets already developed by the Centre for Health Evidence¹⁵ for the critical appraisal of therapy, harm, diagnosis and prognosis evidence.

All of the Centre for Health Evidence critical appraisal worksheets follow a common format, asking the user to consider 3 questions:

- Are the results (of this study) valid?
- What are the results?
- How can I apply these results to the care of my patient?

The evidence for human response and meaning questions arises almost exclusively from descriptive and interpretive study designs. Although the specific criteria for determining validity or truth value vary slightly depending on whether the evidence arises from a qualitative or quantitative research tradition, there are essentially 3 major issues in an observational/descriptive/interpretive study:

1. Were the study subjects appropriate informants for the experience of interest?
2. Was information collected accurately from those informants?
3. Was the information analyzed in a credible way?

Studies arising from varying qualitative philosophic traditions may employ tradition-specific strategies for assuring the truth value (validity) of the findings. Increasingly, the blurring of philosophic boundaries in qualitative research results in eclectic approaches to assuring accuracy. We encourage evidence users to evaluate these strategies by the strategy’s ability to accomplish its pragmatic intent, rather than by its philosophic and methodological purity.

The critical appraisal worksheet we have developed for human response and meaning does not differentiate between human response and meaning domains to evaluate study validity or describe study results. A single worksheet suffices for both domains: we encourage evidence users to focus on the similarities between the domains in terms of critiquing the accuracy of evidence and to differentiate the domains in terms of ways that evidence might be applied in practice. In the application of evidence section, the worksheet questions diverge to reflect the different ways that nurses use information about process (human response) and values (meaning) in

Evidence Appraisal Worksheet – Human Response or Meaning

Student Name:

Date:

Study Question:

Citation:

Are the results valid?

Were participants relevant to the research question? Was their selection well reasoned?

How were accuracy and completeness of data assured?

(Identify study as quantitative or qualitative.)

Did data collection meet standards of rigor dictated by the study's design?

(Qualitative study: criteria and techniques used to assure reliability and validity / truth value.)

(Quantitative study: report reliability and validity of measurement instruments.)

Were the data appropriately analyzed? Do the data support the findings?

(Report strategies used to assure the accuracy of the data analysis.

(Qualitative study: report whether appropriate analysis strategies were employed.)

(Quantitative study: report whether appropriate statistical analyses were employed.)

Are the results plausible and believable?

What are the results?

Is the human response / experience clearly identified?

(Label or briefly describe.)

What are the reported concepts, themes, patterns and/or processes?

Identify sub-themes if present.

What are the reported relationships and/or interpretations?

(Qualitative study: Are proposed relationships and/or interpretation logically supported? Is the evidence clinically meaningful?)

(Quantitative study: Are proposed relationships statistically significant? Are they clinically meaningful?)

How do the findings fit with existing knowledge in the field?

How can I apply the results to patient care?

To what other situations and persons might these findings apply?

(Identify persons or situations where these findings would be expected to apply and indicate whether your patient is included.)

NOTE: Evidence to address a human response question often provides evidence for meaning questions, as well, and vice versa. If this is true of the evidence you are critically appraising, complete both sections below.

Figure 4. Data from reference 17. Critical appraisal worksheet for human response and meaning evidence.

the care of their patients. Evidence intended to inform a human response question is likely to have meaning question applications, and vice versa.

THE RELATIONSHIP OF CONTEXT TO HUMAN RESPONSE AND MEANING

At an earlier stage of writing about the meaning of evidence as it pertains to knowledge development in clinical practice, Powers identified 3 kinds of questions that (in addition to those in the established EBP paradigm) also matter to nurses. Human response and

meaning questions have been addressed here. The third kind was identified as “*context questions* about the personal, ethical, social, and cultural circumstances within which clinical care decisions are made and implemented.”¹⁶; p.56

Situational factors may influence individuals’ personal definitions of health and illness and the decisions they make. For example, when the cost of treatment is more than people feel they can afford, illness may mean making difficult survival-oriented choices that place their health and well-being in

Human Response Application

Do these findings help me understand how my patient may respond to health issues?
 Are the results useful for altering my assessment or management of patients encountering this health issue?
 Are the results useful for counseling or educating patients?
 Do the results help me to understand my patient’s relationship with the health care system, including me?

Meaning Application

Do these findings help me understand my patient’s values?
 Will the findings help me understand the personal, ethical, social and/or cultural contexts that impact my patient’s responses and decisions?
 Will the results make me a more observant and sensitive counselor/teacher?
 Do the results help me to understand the patient’s point of view?

Do these findings help me understand my own and others’ values?
 Will the findings help me understand the personal, ethical, social and/or cultural contexts that impact my responses and decisions, or those of other caregivers?
 Do the results help me to understand my own point of view or that of other caregivers?

Here is my plan for applying the results to my clinical scenario:

- Specific actions chosen to apply evidence:**
- Actions taken to minimize any risks associated with applying evidence:**
- What change would these actions make in your current practice?**
- Institutional changes / support needed:** *(What is the current institutional policy?)*
- How will you incorporate patient values?**

Here is how I plan to evaluate my application of the results to my clinical scenario:

- Specific outcomes to monitor identified:**
- Time frame for monitoring outcomes:**
- Barriers to conducting adequate evaluation identified:**

Content adapted from
 Centre for Health Evidence (2006). *Users' guides for evidence-based practice*.
<http://www.cche.net/usersguides/main.asp>
 Guyatt, G. & Rennie, D. (2002). *Users guides to the medical literature*. Chicago: AMA Press
 B. Melnyk & E. Fineout-Overholt, (Eds.) (2005). *Evidence- based practice in nursing and healthcare*. Philadelphia: Lippincott, Williams & Wilkins.

Figure 4. Continued

jeopardy. The sensitization of healthcare providers to the context of their patients increases the likelihood that they will look for evidence of how personal, ethical, cultural, and social circumstances impact patients’ illness experience and their treatment choices. Awareness of context is also crucial to the clinician’s judgment about the applicability of human response or meaning evidence to her/his specific patient.

Within the qualitative research field, it is possible to identify types of studies that are known for placing particular emphasis on context or meaning or human response. On the other hand, it is not unusual for a single qualitative study to address more than one of these domains to a greater or lesser extent.

ISSUES FOR FURTHER THOUGHT

Is the attempt to separate context and meaning into unique domains being overly discrete? Doing so means that, while some studies will prove to be easy fits, the choice between which domain best characterizes some others may prove to be more forced. And the experience of *forcing* is foreign to qualitative researchers who are more used to encouraging the *emergence* of understandings about how things stand in the world. Conversely, does collapsing context, meaning, and human response into one domain result in a category that is so general that it borders on the superficial? What level of categorization offers the greatest utility for nurses attempting to frame clinical questions in answerable ways?

Our guidance to our colleagues and students is embodied in our critical appraisal worksheet. We explicitly cue them to consider evidence about personal, social, ethical, and cultural contexts as an aspect of meaning and the values that influence decisions. Human response and meaning are considered as a single domain for the purpose of determining truth value, but differentiated when considering the ways the evidence may be applied to practice. Our choice to make the case for at least 2 domains, one of which is labeled to denote nursing's distinctive scope of practice, is an invitation to collegial dialogue. We hope to stimulate discussion about best practices for embracing the advantages of the evidence-based paradigm without abandoning the core concerns of our profession.

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