
Article

Exploiting Exceptions to Enhance Interpretive Qualitative Health Research: Insights from a Study of Cancer Communication

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Abstract

Although it has long been understood that a well-constructed data set ought to be filled with complexities and contradictions, observations that challenge or contradict analytic interpretations are not often given sufficiently serious attention in the methodological qualitative health literature. When researchers attempt to produce comprehensive or “holistic” findings, they all too often set aside or gloss over the negative cases that fail to conform to their emerging interpretive generalizations. In this article, the authors challenge fellow qualitative health researchers to engage actively in identifying and exploiting both actual and theoretical exceptions as a valuable analytic strategy. They argue that heightened sensitivity for negative cases uncovers the assumptive claims deriving from our various methodological orientations and illuminates alternative explanations. They propose that thoughtful attention to contradictory or challenging observations can deepen our expectations about the kinds of knowledge products that qualitative research ought to yield, thereby helping us advance the credibility of our findings and the ultimate utility of our empirical conclusions.

Keywords: qualitative methodology, data analysis, outliers, evidence based practice, maximal variation

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Introduction

Any given finding usually has exceptions. The temptation is to smooth them over, ignore them, or explain them away. But the outlier is your friend. A good look at the exceptions, or the ends of a distribution, can test and strengthen the basic finding.— M. B. Miles & A. M. Huberman, 1994, p. 270

Inherent in qualitative research processes, particularly as data analysis proceeds and as preliminary thematic groupings are established, certain observations stand out as being at distinct odds with the majority of the data. Analytic challenges within some of our recent inquiries have prompted us to reflect on our approach to those data that emerge as seeming exceptions or negative cases. In various ways, such data bits have allowed us to challenge our tentative thematic interpretations and call into question the assumptions that we have inadvertently embedded in the conceptualizations we bring into our projects. What has become apparent through this reflective process is that the manner in which we attend to these observations has significant implications for the credibility of our claims and the ultimate utility of our findings.

In this article, we expand on these reflections to engage the reader in what constitutes an ongoing discussion about the inherent value of that which does not conform to our neat and tidy thematic descriptions or our interpretive conceptualizations. We decry what seems to be a recent trend within the qualitative health genre to overlook such inconvenient variations within data sets and argue instead that deliberate attention to observations contrary to current conceptualizations deepens our analytic capacity and intensifies the eventual credibility and utility of all of our research products. In the case of qualitative health research, in which findings are proposed not simply for the purpose of theorizing but more typically to inspire enhanced insight and sensitivity for the complexity of a clinical phenomenon, we argue that understanding the role of negative or exceptional cases might be of particularly pressing consequence.

The concept of exceptions in qualitative research

Researchers have long grappled with how best to deal with observations that are distant from the majority of the data. Within the theoretical tradition of quantitative research methodology, these observations have been labeled outliers. Outliers are considered to be data points that are at odds with the majority of the data—observations that might have a significant (and typically unjustified) influence on statistical results (Agresti & Finlay, 1997; Bickman, Rog, & Hedrick, 1998). Because these observations are unlikely to be correct according to what is known about the phenomenon from other independent observations, it becomes critically important to detect them within data sets, eliminate them from the statistic analysis, and nullify their impact on the findings (Osborne & Overbay, 2004). Unless one can simply correct for them by collecting large quantities of highly redundant data, the basic tenets of rigor require that researchers ask probing questions of each outlying instance: Is the observation a mistake in measurement or recording? Alternatively, is there something else going on that does not fit the original study hypotheses? To maintain integrity within the research processes, each outlier cannot simply be discarded without investigation of the reasons for its appearance, and the results of that investigation used to determine how that one observation will be processed.

The problem of data that lie distant from the majority of the data has been dealt with within the qualitative tradition differently from the way in which it has been handled by quantitative researchers. Although it has well-established roots within the foundational methodological tradition of qualitative inquiry (Kuzel, 1999; Lincoln & Guba, 1985; Patton, 1990), the problem of findings that stray from the majority of the observations has generally received less active scrutiny in the qualitative research literature than in the quantitative domain. First, the phenomena of concern to qualitative researchers are likely to be grounded in the social world rather than in the material world and therefore are much more loosely governed by the kinds established laws, principles, and theories by which one determines the correctness of a data point within the “basic sciences.” Second, although the quantitative outlier becomes problematic because of the profound influence it can have on the research results when undetected, the typical qualitative outlier is immediately apparent to the investigator and is subject instead to the interpretive maneuvers by which it can be written entirely out of the data set.

A third reason for which consideration of the implications of exceptional observations might have been relatively absent from the recent qualitative methodological literature, and the issue to which we orient our attention in this discussion, is a misconception that seems well entrenched within the qualitative health researcher community, that the researcher “as interpretive instrument” enjoys the unilateral privilege of determining what do and do not constitute data. In the very act of constructing (even co-constructing) data in the qualitative context, that which seems meaningful and relevant is illuminated, whereas that which is not is obscured. Despite expectations of methodological precision within the early social science traditions, from which the majority of our qualitative health research methods have derived (Caelli, Ray, & Mill, 2003; Johnson, Long, & White, 2001; Thorne, 1991), we have not sustained a strong tradition of reporting that which was not studied, asked, sought, or recorded, or of questioning the inductive processes by which findings are rendered from the total possible theoretical context in which we inquire. Although we have focused a great deal of attention on locating the theoretical positioning and potential “bias” of the researcher-as-instrument, we have paid much less attention to an intricate analysis of what it is that the researcher holding that positioning might or might not “see.” Thus, from our perspective, it seems worth considering the possibility that the manner in which a researcher seeks and handles exceptional cases might be an important element in ascertaining the credibility of integrative conclusions made on the basis of qualitative findings.

When we obtain qualitative data that, at least at first glance, tend to lie far from the majority of observations, in that they seem outside the conceptual categories into which we strive to sort them, we might be tempted to consider them as observations whose effect ought to be nullified. Although there might be cases in which these observations represent mistakes in recording or interpretation, more often such data can provide us with unique opportunities to consider our findings from different vantage points at each stage of the analytic process. Assuming they find their way into our data sets, and given due consideration, observations that appear to us as exceptions might prompt new avenues of thinking, push our analyses toward more complex and sophisticated conceptualizations of the phenomena in question, or even prompt us to uncover assumptions that might revise our core understandings of that which we are investigating.

As Miles and Huberman (1994) have pointed out, outliers (or exceptions) can take a variety of forms. We detect them in our data sets as “discrepant cases, atypical settings, unique treatments or unusual events” (p. 269). Although our natural inclination might be to respond to these observations as if they were unfortunate contaminants, artifacts of our design decisions, or remnants of an imperfect data collection process distracting us from a coherent portrait of the phenomenon on which we have set our angle of vision, a more careful examination of the manner in which they manifest themselves within our studies might orient us toward searching for alternative meanings they might conceivably represent (Kuzel, 1999; Patton, 1990). For example, they might represent plausible instances of contradictions to our tentative thematic and theoretical interpretations of the data, or manifestations of important human diversities discrepant from the dominant discourses. They might be alternative forms of the thing we think we are studying, or entirely different phenomena that have masqueraded as instances of our focus of inquiry. Most important, they might represent an important window into the complexities of not only that which we study but also the world within we would hope to introduce our research findings.

Examples of exceptions in a cancer communication research project

Communication in cancer care has become an increasingly attractive area of substantive inquiry, in that it reflects a high degree of consumer concern and becomes a powerful mediator of the cancer experience. The goal of an ongoing cancer communication study in which we have been engaged (Thorne, Hislop et al, 2006; Thorne, Kuo et al, 2005) is to look below the surface platitudes of popular health communication theory and search for deeper principles that might provide explicit guidance to cancer

care practitioners. As our analysis unfolded, we organized preliminary findings around three major themes. The first reflected what we had come to understand as a fundamental and essential element of communication in cancer care: the sense of “being known.” A second theme reflected discourses associated with references to numerical information and statistical representations, in that these become particularly potent communication forms with a particular relationship both to the dynamics of communication encounters and to critical subjective experiences such as hope. A third theme was related to outcomes, what individuals understand to be the benefits or harms associated with cancer communication experiences. Each theme addressed a topical commonality, an issue that arose repeatedly among and between study participants as critically important aspects of the cancer communication experience. On the basis of these patterns, we hoped to develop cogent empirically derived communication standards. However, we also encountered within each theme exceptional observations that presented a considerable challenge to our ability to articulate even preliminary findings with the confidence that we had originally anticipated.

The role of human connection

It seemed evident within our findings that “human connection” is a central ingredient in effective communication between cancer patients and their professional care providers. “They know me,” or, conversely, “they don’t know me” represent the most frequently cited explanations for why any particular communication episode was or was not deemed effective for that particular person at that particular time in the course of a cancer illness. This pattern was sufficiently strong that we were tempted to articulate the behavioral patterns and themes within it as the key to invoking the feeling of “being known” as a requirement across all cancer care. In general, people prefer to be identified as individuals, with some elements of their unique personality or preferences entering into the relational context. They seem better able to transcend the technical and power barriers where human touch, nonmedial dialogue, and emotion are permitted or even encouraged within the clinical encounter. However, in working with the data, we became acutely aware that each common pattern within this phenomenon of wanting to be known revealed significant variations that proved instructive to our analysis. There were people for whom technical engagement is most assuring, for whom touch and emotional expression are disconcerting, and for whom getting down to business is far more important than getting to know one another as individuals. Furthermore, there are some individuals for whom the social, nontechnical, or emotional elements of discourse might be interpreted as meeting the needs of the clinician rather than the patient. Taking these exceptions into account, we were led to develop the theme of being known in a manner that transcends the descriptors by which we most typically measure and articulate it. Being known became a highly individualized, iterative, and interactive phenomenon within which cues are detected, interpreted, and applied into a theoretically infinite range of effective communicative responses.

In assuming this more global interpretation of the theme of being known within the data, we were also led to ask additional questions such as how culture, gender, age, prior life experience in health care and in authoritative relationships might influence the desired nature of human connection in any individual instance. We used those variables as “theoretical outliers” in the sense that they not only alerted us to exceptional cases but also pushed us to consider plausible variations that could exist but were not captured within our particular data set. Using this form of “thoughtful clinician test” in our ongoing reflection and analysis, we begin to envision new angles of possibility as we expanded our understanding of this complex notion of what it is to “be known” within an intensive health and illness encounter.

The value of information

With regard to the second theme, it seemed self-evident within our findings that information access is highly valued by a majority of cancer patients and that those who seek high levels of information consider its provision a fundamental professional competency. Our cultural form places much of the information

relevant to cancer care decision making within a statistical construction (3 out of 4 people diagnosed with your kind of disease will still be alive 5 years from now; you have a 90% chance of cure; if you obtain this treatment, you will have a 5% better chance of delaying recurrence within 6 months; and so on). However, even among those articulate and expressive patients who seek high levels of information, we find a significant range of interpretation for such numeric information. Information described as “too much” might reflect errors of quantity, intensity, or valence, and generosity with such information might slip into a volume level that is overwhelming or a detail level that becomes interpreted as something somewhat sinister, such as professional self-protection. What we see, then, is that information-seeking as a primary discourse cannot be distinguished from hope-building if we are to protect the rights of those individuals for whom subtle variations in information transmission might represent the difference between hope and despair. Therefore, conclusions generalizing the phenomenon of information access become problematic. In other words, people are decidedly different when it comes to a preference for adopting a positive attitude to guard against negativity, or adopting a negative attitude in the hopes that one will be pleasantly surprised. Because few of us would be sufficiently insightful about our own psychosocial proclivities to explain that to a clinician, the onus falls on the health care professional to detect signs of that difference. Again, by capitalizing on the presence of a few exceptional observations within our data set, we begin to question our thematic understandings in a deeper manner, one that might prevent us as analysts from premature closure, thinking we understand this matter simply because the common patterns are so convincing.

The impact of communication

A third thematic claim had to do with the abiding conviction of some people (perhaps many, as it requires a risk to articulate) that cancer communication is, in and of itself, sufficiently powerful in the care experience to influence cancer care outcomes. Although our common discourse would allow that such “soft” variables play a critical role in quality-of-life outcomes, some patients consider them to be of sufficient potency that they might affect mortality outcomes as well. For such persons, attitude (positive or negative) is of critical importance in responding to cancer illness at all stages, and the preservation of a positive attitude becomes consistent with better immune response, inner strength, and the possibility of influencing molecular changes or cellular proliferation patterns. Such interpretations, whether explicitly or implicitly expressed, are found with sufficient frequency that they might lead us to believe that a positive attitude is a universally preferred position and therefore a standard of effective cancer care communication.

However, with the benefit of a large data set, the presence of a few unusual observations allows us to glimpse the potential problems that might arise from overgeneralization of common patterns. For a subset of breast cancer patients in particular, the notion of positive attitude has become politically aligned with accepting responsibility for the cancer illness in the first place. Although many patients are quite capable of simultaneously holding ideas that one might interpret as mutually incompatible, such as the idea that attitude had no role in the development of breast cancer but might play a role in determining outcome, others find any attempt to acknowledge a role for positive attitude as a direct threat to their fundamental denial of responsibility for having cancer. For this small subset of individuals, support for the benefits of positive attitude might be interpreted as demeaning and patronizing. Thus, here as well, analysis of the exceptions, and extrapolating the manner in which they might inform our search for other theoretical variations we have not yet had the opportunity to study, helps us understand that competing conceptualizations of that which has a possibility of influencing outcomes is the central problem.

Insights from the exceptions

These examples, extracted from a single study, illustrate differing ways in which exceptional observations can become quite dynamic components of inductive analytic processes. In each instance, these

observations prompt deeper and more complex interpretations of the data set and provide safeguards against premature theoretical claims that might be prejudiced by the assumptions embedded in the conceptualization of our research projects. Although the product of qualitative inquiry will vary depending on the goals of the study, and to some extent the selected methodological approach (Thorne, Joachim, Paterson, & Canam, 2002), the point of the inductive analytic process is inevitably to discern what is knowable about the phenomena of study, however temporary and tentative that “truth” might be (Emden & Sandelowski, 1999; Sandelowski & Barroso, 2003; Thorne, Reimer Kirkham, & O’Flynn-Magee, 2004). Hence, the cognitive strategies employed during analysis ought to facilitate the portrayal of that truth, drawing attention to variation, calling assumptions into question, and pushing the interpretation toward the richest and most complex portrayal possible (Sandelowski, 2002).

Careful attention to exceptional observations, including interrogation of why any observation might be categorized an exception and vigorously pursuing the theoretical possibility of such negative cases, even when they do not emerge from the sampling process, enhances the likelihood that the assumptions embedded in our work will be detected and challenged as we enact our inductive interpretive processes. In qualitative health research projects, we inevitably bring some assumptions about what the findings will look like—whether they will emerge as core variables that help us understand the diversity we see, or whether they might reflect basic social processes that will put the actions and tacit understandings of human behaviour into some grand universal context (Miles & Huberman, 1994). We enter our studies from an analytic or philosophic perspective that tells us something of the nature or structure of the phenomenon we seek to explicate, and we ask research questions that reveal strong assumptions about how it will look when we actually find it (Thorne, Paterson, et al., 2002). Furthermore, we often do so in the context of an elaborate set of assumptions about the very purpose of phenomenal description and the utility of conceptual knowledge claims within the foundational theoretical structure of an applied health orientation (Paley, 1996).

The examples from the cancer communication research reveal the presence of a number of such assumptions. These include assumptions about what theoretical sampling ought to include in the recruitment process, the kinds of questions and prompts used during data collection/construction interviews, and the expectations held about the degree to which commonality among diverse participants might overshadow some of their differences and therefore make the entire project worthwhile. The very fact of having decided to study cancer care communication betrays a fundamental assumption that there are what might be referred to as “probable truths” (Johnson, 1996; Kikuchi & Simmons, 1996; Morse & Mitcham, 2002; Sandelowski, 1996; Sandelowski & Barroso, 2003) about communication in this context that reside “out there” to be discerned, and also that patterns and themes detected among individual cases will shed light on such truths. We asked individuals with cancer about their experiences of helpful and unhelpful communication in their health care encounters. Embedded in this question are the basic ideas that something exists in the interaction between individuals and their health care providers that matters, and that there is something about that interaction that is important to the well-being of cancer patients. These assumptions follow logically from and exist within the context of the evidence basis that has been developed by scholars working within this field and have been repeatedly articulated as fundamental values by clinical leaders within the cancer care context (for example, see Degner, 1998; Fallowfield, Jenkins, & Beveridge, 2002; Freedman, 2002).

As our case illustration suggests, where we choose to study a thing, the very logic within which we justify our inquiry typically reveals a profoundly influential assumptive frame that shapes much of what we will encounter when we engage in analysis and interpretation. Interrogation of the exceptions one actually finds within a data set, and also those “theoretical outliers” one can begin to imagine on the basis of extrapolation to the diversity of the population under consideration, seems therefore an essential ingredient in truly excellent inductively generated findings. Our experience convinces us that a spirited search for unusual observations with a data set, combined with an imaginal search for theoretical

possibilities within which other exceptions might reside, also serves as a potent device for grappling with the strengths and limitations in our qualitatively derived inquiries and for making inductive analytic decisions that are informed by those characteristics.

The impact of disregarding diversities

Reflection on our study in the context of the larger body of qualitative inquiry into matters of human health and illness experience has convinced us that failing to attend to actual exceptions and theoretical outliers within our research will have untoward consequences for the products of our research, particularly if we intend to portray our findings as holding some explanatory value. According to Morse and Chung (2003), each of our distinct qualitative research traditions provides us with one unique angle of vision on which to understand a phenomenon. In isolation, one angle of vision is not normally understood as sufficient to produce holistic knowledge or generate a comprehensive understanding of that which we are studying. However, qualitative researchers often enter their studies with the assumption that such an understanding can be attained and, in the course of conducting their inquiries, might unconsciously search out and privilege that which seems indicative of an evolving comprehensive conceptualization. When we fail to appreciate the singularity of our perspectives, we too quickly create overly simplified interpretations, and thus the inherent value of the qualitative lens to a larger understanding might be lost. To address the manner in which these assumptions may play a role in shaping the quality of our research products, we turn our attention in particular to a consideration of specific methodological decisions related to sampling.

As evidence of this holistic fallacy and the recent trend toward oversimplification, Caelli and colleagues (2003) pointed to the “ubiquitous and non-selective” invocation of “data saturation” within a significant proportion of qualitative health research reports as a justification for discontinuing data collection (p. 18). The strategies of seeking maximal variation within sampling and continuing to sample until redundancy have been achieved have solid roots within the grounded theory tradition (Boychuk, Duchscher, & Morgan, 2004; Glaser, 2002) and have also been widely cited well beyond that context. The point of sampling widely to tap diversity is that one reduces the risk of misattribution or miscategorization by explicitly searching out alternative explanations (Morse & Mitcham, 2002). When one claims redundancy, one is typically situating one’s research as having tapped all possible variations within the theoretical positioning by virtue of evidence that no new conditions or variations are likely to arise with continued data collection (Glaser & Strauss, 1967).

A more extreme version of this claim emerges under the guise of “theoretical saturation,” a concept that has a distinct and particular utility in the context of conventional grounded theory methodology (e.g., Chenitz & Swanson, 1986; Corbin & Strauss, 1990; Glaser & Strauss, 1967) but has crept into the lexicon of methodological justification across a wide range of qualitative methods. In much of the qualitative health research today, in which the original doctrine of extensive data gathering, coding, and theoretical testing is almost always mentioned but not always taken overly seriously (Eaves, 2001), asserting the achievement of theoretical saturation might reflect a lack of interest in seeking new diversities within larger populations of representative cases. If we uncritically accept such methodological claims as credible research logic, we do so because of the belief that the overall point of our research is the search for evidence of human universals rather than diversities. Thus, we claim theoretical saturation most easily when we have restricted our gaze to that which confirms rather than disconfirms our tentative interpretive claims. When we fail to attend to the exceptional observations or negative cases, and justify premature conclusions with the convenient claim of saturation, we too readily produce research reports that neither do justice neither to the substantive phenomena we wish to understand nor to the credibility of the entire genre of qualitative health research. In other words, we offer up forced analysis in the absence of real theoretical integration, or what Glaser has referred to as “conceptual foppery” (2002, p. 24).

A particularly worrisome product of our collective disregard for the diversity and complexity inherent in the human phenomena that we study is the preponderance of published qualitative reports that rely on very small samples. Although we fully recognize that it is theoretically quite possible to create a powerfully “thick” description on the basis of even a single case study (Sandelowski, 1995), all too often one finds published reports of very “thin” thematic descriptions derived from single interview records of a handful of conveniently selected individuals (Caelli et al., 2003; Sandelowski, 1995, 2004a). This problem is often further exacerbated by an apparent disregard for the profound implications of how the actual sampling approach will have influenced the substantive nature of the data (Eakin & Mykhalovskiy, 2003), leading to overly grand claims that discredit any sensitizing value that the study findings might otherwise have warranted (Sandelowski, 1995; Sandelowski & Barroso, 2003).

We see the issue of sampling and sample size in qualitative research as problematic. Despite the availability of a vast body of excellent theory on the logic model with which one ought to determine whether one has achieved sufficient variation within a sample to evaluate confirming against disconfirming cases, interpret exceptions, and test variations (Guba & Lincoln, 1989; Higginbottom, 2004; Kuzel, 1999; Lincoln & Guba, 1985; Miles & Huberman, 1994; Patton, 1990; Sandelowski, 1995; 2004a; Schwandt 1997), researchers all too often justify small sample sizes by citing explicit numeric suggestions (such as Kuzel’s [1999] suggestion that 5 to 8 participants are sufficient for homogenous groups or Morse’s [1994] estimate that 6 is a reasonable number for a phenomenological study). All too often, however, these numbers are cited quite apart from the methodological context in which they were intended as if they represented a more general justification for the inherent value of studies with small samples (Endacott & Botti, 2005).

Paradoxically, researchers are much more likely to convince themselves of the credibility of grand claims about theoretical saturation when they rely on small homogenous samples from which to draw their conclusions. In our cancer communication study, we purposively set out to create a large sample (by qualitative standards) to overcome some of the inherent limitations of smaller studies and to strive toward findings with potential for general application. To sample from a sufficiently diverse and representative sample to be able to theorize intelligently about a complex phenomenon such as communication in cancer care, we created a data set comprising a sample of 200. Had we relied on a smaller sample size, we might well have assumed we had achieved saturation around such findings as the meaning of emotional support cancer patients receive from their professional health care providers, the inherent value of hopeful information, or the consumer perspective of cancer care communication influence on disease outcome. In all of these instances, the number of individuals whose experiences varied from the norm was quite small. However, identification of unusual observations within the sample, and further actual and virtual theoretical sampling led us to a better understanding of the meaning of the variations within human connection, hope, and optimism that those observations hinted at. In so doing, it confirmed for us that assuming saturation at a less sophisticated level of analysis might well have resulted in findings that would ring less than true for thoughtful clinicians—the very audience we intended to reach.

Recent inquiries using qualitative metasynthesis to interpret the state of knowledge deriving from a generation of qualitative studies confirm that a preponderance of smaller studies might have systematically influenced our current understandings and reduced our expectations about the value and utility of qualitatively derived knowledge (Paterson, Thorne, Canam, & Jillings, 2001). Where there are many small qualitative studies in a particular field, we ought to ask ourselves whether the multiplicity of such findings means that they are reliable and valid, or whether researchers have simply recreating the same species of analytic error as a result of methodological inadequacy (Thorne, Paterson, et al., 2002). As a growing body of small qualitative studies about a phenomenon begins to confirm a homogenous standardized impression of it, we might become more easily misled into the conviction that there is nothing more to know. Thus, under such circumstances, we might need to ensure that the study of important phenomena benefits from the application of a diversity of increasingly sophisticated research

methods to ensure that all relevant angles of vision are exploited and all reasonable interpretations carefully considered. The complexity of the empirical underpinning of our conceptual knowledge must continue to play an important part in our understanding of its maturity.

Toward befriending our outliers

Our experience in exploiting sampling diversity confirms Miles and Huberman's (1994) classic adage that "the outlier is your friend" (p. 270) and underscores the importance of not glossing them over in an attempt to seek commonalities and patterns within the human experiences we qualitatively investigate. In concert with many of our predecessors writing in qualitative methodology development, we feel strongly that exceptional observations provide a mechanism for moving below the surface of our findings, and call for a renewed enthusiasm for exploiting complexity rather than settling for simplicity within our collective understanding of quality criteria. We see this as particularly salient for work within the health research arena, where the tensions between universals and particularities play themselves out in the discourse around the role of qualitative research in evidence based practice.

Universals and differences

Within all qualitative analytic processes, we recognize that there is an inherent tension between the theoretical "holy grail" of universals and commonalities and the everyday reality of human diversity and variation. It seems counterintuitive to the human mind not to group, organize, and order data in such a manner that seeks commonalities rather than differences. We seem to require an understanding of commonality before we can tolerate considerations of diversity. In the example of the cancer communication study, which had lofty goals associated with something fairly generalizable, we have been forced to pay serious attention to what the implications might be for all of those individuals and instances that we might consider exceptional observations if we analytically elevated the strong commonalities we have found into conceptual "truths." Because we sought consumer-based evidence in our study to support a practice standard, we began to recognize that seeking the unusual observations and understanding what they had to tell us about the problem of human diversity in this context was of critical importance if we wished to do justice to our eventual claims and conclusions.

Thematically, the exceptional observations we described represent angles of the phenomenon that would not likely have been detectable within small study samples, or might have been discounted as irrelevant had it occurred within a single instance. In our larger sample, with the capacity to discern variations on each outlier theme, we were able to ask a different set of theoretical questions and begin to propose different answers. Conscientious attention to exceptional observations within a larger study therefore tells us something of the problems inherent in the knowledge gleaned from small qualitative studies in which variation is unlikely or from quantitative studies in which the quest for probabilities may average out our capacity to see complexities. Within a larger qualitative data set, and with a commitment to capitalizing on what it is that exceptions can tell us, we believe we can aspire to a more coherent and defensible evidentiary foundation for our conclusions. In the cancer care communication study, by generating conclusions at a conceptual level that accommodates both commonality and diversity, we are able to shift our angle of vision from human connection to being known, from access to information to preserving hope, and from supporting the not-yet-rational to attending to meaning. In so doing, we believe that the findings of our qualitative research better approximate the form and structure that will support clinical wisdom render our findings amenable to such lofty aspirations as bringing qualitatively derived evidence into the evidence based practice agenda.

Evidence-based practice

For those of us who conduct qualitative health research in an applied context (in contrast to those who study health issues for the explicit purpose of advancing social theorizing), a dominant discourse into which our study findings are seeking entry is that of “evidence-based” practice (Miller & Fredericks, 2003). Where qualitative research makes a significant contribution to the evidence literature is precisely where it attends to a multiplicity of perspectives in a manner that is inaccessible to the practitioner of quantitative research, who is forced into constructed categories of meaning, numeric representations of complex phenomena, and somewhat artificial population groupings in an effort to understand something about a whole (Barbour, 2000; Cohen, Kahn, & Steeves, 2002; Sandelowski, 2004b). Studies using instruments attempt to capture something that, by convention, has come to represent an aspect of human health reality that we wish to study and understand. However, the attempt to understand it in this manner invariably reduces, fragments, and sterilizes it from the contaminating context of the natural world in which it occurs.

Qualitative research, appropriately conducted, offers a means by which we can relocate the numeric representations of reality into their embedded complexity and better understand the conditions under which that representation does and does not hold (Sandelowski, 2004b). Not a competing reality but, rather, a complementary one, it makes possible a comprehensive interpretation of the full range of knowledge products relative to a phenomenon by helping us explain the unique aspects of that phenomenon that can reasonably be derived from each angle of vision. It not only confirms what statistics will tell us is the majority perspective but also explains minority views and the social, environmental, physical, or metaphysical interactions between them and that which is dominant. In so doing, it creates a knowledge form in which we can better interpret the contexts and conditions under which evidence based practice—the majority opinion— becomes most acceptable (Sandelowski, 1997).

According to Sandelowski (2004b) “Qualitative health research is the best thing to be happening to evidence-based practice.” She claimed that it unfreezes and complicates the notion of evidence, foregrounding its political and ideological underpinnings, and reshaping it so that it rediscovers its capacity to transfer knowledge to individual cases, which is, after all, the original intention. She therefore considers qualitative health research as our best chance of producing “truly transformative knowledge and fully activating the knowledge transformation cycle foundational to the evidence-based practice paradigm” (p. 1382).

If qualitative studies merely count, categorize, and generalize, then they will be (and, arguably, ought to be) legitimately discounted as methodologically weak and unworthy of evidentiary status. In contrast, conducted in its full complexity, qualitative research can, indeed, add substantive value to the evidence-based practice discourse. Where our research products are strong, they engage that which can be discerned through quantitative methods in a manner that enlightens our comprehension of complex phenomena, so that we understand more fully the strengths and limits of each of the various knowledge forms available to us in relation to a phenomenon. In this context, large qualitative sample sizes are not an attempt to compete with the sampling logic associated with quantitative studies; rather, they create the opportunity for us to search out and capitalize on data that challenge our interpretations—those rarely occurring phenomena and the exceptions to dominant patterns—so that we can heighten the complexity of our conceptualizations and extend the comprehensiveness of our understandings. The insights we obtain from the exceptional observations within a larger study, therefore, become an important mechanism by which to test the degree to which our findings are sufficiently comprehensive, nuanced and inclusive to make a meaningful contribution to evidence-based practice.

Conclusions

Because the essential point of applied health research is to generate knowledge that might be applied in the context of individual cases, we are convinced that a thoughtful continuing dialogue about the role of qualitative inquiry in the evidence-based context is in order. Instead of simply declaring our right for equal consideration within the evidentiary hierarchy, or assuming the value of our findings to be self-evident, we who wrestle with the genre are best placed to recognize its strengths and limitations, untangle its theoretical claims, challenge its methodological and design assumptions, and set the bar for its quality criteria.

In this context, we see exceptional observations as something of a “heuristic” to keep us collectively honest with regard to our aspirations, to ensure that we resist the temptation of neatly packaged theorizing and simplistically coherent conclusions. We therefore advocate a vigorous and critically considered application of the notion of theoretical sampling, with an eye to the really fundamental variations inherent in the phenomena themselves rather than the superficial demographic features by which we might guess at them. We think that in the health field, the search for major and minor variations ought to be an essential ingredient in all qualitative inquiry, perhaps tapping the wisdom of those who have closest access to knowledge of the variations by virtue of having seen thousands of cases—the “thoughtful clinician test,” if you will. As a scholarly community, we ought to scrutinize carefully research reports that seem overly neat and tidy, that gloss over variations, or that look only as far as the similarities. Presentations of findings that overuse metaphoric representation to simplify complex human phenomena might be particularly suspect in this regard. For us to advance the body of our work, it seems imperative that we attend carefully to subtlety, variation, and depth as essential qualitative quality criteria. It is also imperative that we learn how to distinguish between analysis for themes (which goes no farther than that) and that which explicitly seeks to conceptualize complexity within some coherent kind of intellectual or organizing structure.

Within this evidence-based health culture, it is especially important that we collectively resist the pressure to present our qualitative findings as trends, patterns, or probabilities—all forms that tend to be expressed with a certitude comparable to the confidence that numerical findings confer within policy and best practice discourse. We must remember that what good qualitative studies provide is not a competing form of uncovering trends, not a better way to document patterns, but actually a counter to the evidence-based practice problematic. What quantitative evidence tells us is the majority, the dominant, the visible, and the overt. What qualitative evidence can provide is the nuanced, the subtle, the complex, and the various. In the currently configured evidence-based culture, that which is best served will be that which can be measured, reported, and established empirically. What gets lost will be that which is different, dynamic, abstract, and tacit. With a renewed enthusiasm for methodological rigor and analytic accountability, as well as an explicit humility for the profoundly complex nature of the knowledge we produce, the qualitative health community can, indeed, serve as a humanizing force within the dominant ideology.

Our experience with a rather large qualitative study has allowed us to capitalize on the inherent value of exceptions as a device that enables us to dig deeper into our data sets, to ponder alternative angles of interpretation, and to account more elegantly for the very real challenge that human diversity entails. Although commonalities and thematic patterns documented within our data sets can provide us with a solidly grounded set of general principles, it is the exceptions that will often yield the best insights as to how and when we ought to apply them. On this basis, therefore, we celebrate the exciting role that exceptional observations can play in forcing a standard of conceptual clarity and evidence-grounding within our qualitative health research products.

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