Within-Case and Across-Case Approaches to Qualitative Data Analysis

Lioness Ayres
Karen Kavanaugh
Kathleen A. Knafl

The generalizations developed by qualitative researchers are embedded in the contextual richness of individual experience. Qualitative data management strategies that depend solely on coding and sorting of texts into units of like meaning can strip much of this contextual richness away. To prevent this, some authors have recommended treating individual accounts as whole cases or stories, but whole cases are difficult to compare with one another when the goal of the research is to develop generalizations that represent multiple accounts. In this article, the authors describe the ways in which three different qualitative researchers combined across-case coding and sorting with a variety of within-case data management and analysis techniques to produce contextually grounded, generalizable findings.

Keywords: *qualitative research methods; narrative; phenomenology; concept development*

One strength of qualitative research is its ability to illuminate the particulars of human experience (see, for example, Sandelowski, 1996; Stake, 1995) in the context of a common phenomenon. Typically, qualitative researchers collect multiple accounts of common experience such as parenting a child with a disability, undergoing breast cancer treatment, or recovering after heart surgery. These multiple accounts make up the narrative data from which the researcher's generalizations about breast cancer treatment or heart surgery are drawn (see, for example, Ayres & Poirier, 1996). In addition to the general context of the phenomenon in question, which is common to all participants' accounts, each individual account of experience occurs in a context of its own. The qualitative researcher must develop an interpretation of these data that reflects each individual's experience and applies equally well across all of the accounts that constitute the data set.

In the course of their analyses, qualitative researchers must distinguish between information relevant to all participants and those aspects of the experience that are exclusive to particular informants. Such distinctions are necessary because those aspects of an experience that are unique to one individual have limited

usefulness outside the interpretation of that individual's experience, although such unique features may be critical to understanding that particular person's story. For example, a teenager who has asthma might explain that he lives on a family farm, has daily chores that include work with hay and silage, and that he and his brothers and sisters are active in 4H, a rural youth educational organization, all of which are crucial to understanding his experience. However, farm work and participation in 4H activities might not, of themselves, illuminate a more general understanding of adolescents' experience of chronic illness.

It is possible to understand farm work and 4H participation as representative of an aspect of chronic illness experience that is common among teenagers with chronic illness. Although farm work and 4H have little relevance for children with asthma who live in cities, they are instances of the more general theme of family and community expectations. When family and community expectations are part of the illness experience for many, most, or all of the cases in a sample, the qualitative researcher has evidence that family and community expectations are important in understanding chronic illness across adolescents. Family and community expectations are likely to influence adolescents with chronic illness beyond the research sample; this finding is generalizable. The sequence here is important. Information must first have explanatory force in one case, as in the example of the boy with asthma who lived on a farm. No idea or insight about the data can be used to interpret the data set until it has first been shown to be important in individual experience. Insights from one account sensitize the investigator to similar information as it occurs in other accounts. As an idea occurs repeatedly in multiple contexts, the investigator instantiates the idea as a theme. Those themes that have explanatory force both in individual accounts and across the sample are most likely to apply beyond the sample. Although there is disagreement about the appropriate language to describe findings that are applicable beyond the research sample (Baker, Norton, Young, & Ward, 1998; Lincoln & Guba, 1985; Sandelowski, 1996, 1997), for purposes of this article, the term *generalizability* has been chosen for its correspondence with the natural language meaning of generalization. Therefore, in this article, we will use *generalizability* to describe applicability of findings beyond the research sample and not to the methodological strategies by which applicability was achieved.

According to Stake (1995), individual accounts, referred to by Stake as "cases," are of interest to researchers both for their uniqueness and their commonality. The methods literature provides considerable guidance for researchers who wish to explore commonalities across cases (see, for example, Coffey & Atkinson, 1996; Lincoln & Guba, 1985; Miles & Huberman, 1991; Tesch, 1990). Tesch, for example, described the mechanics of interpretive analysis as "decontextualization and recontextualization" (p. 115). Data are decontextualized when they are separated into units of meaning through coding and sorting. These data are decontextualized because they are separated from the individual cases in which they originated. Data are recontextualized as they are reintegrated into themes that combine units of like meaning taken from the accounts of multiple research respondents. These recontextualized data create a reduced data set drawn from across all cases. The researcher uses the reduced data set to explore theoretical or process relationships among these clusters of meaning. In this model of qualitative data analysis, the

origin of each unit of meaning is less important than its membership in a group of like units. Inevitably, some of the original context in which each unit of meaning occurred is stripped away as the data are reduced. Such context stripping is consistent with the goal of comparisons across cases.

The use of coding and sorting and the identification of themes are "an important, even an indispensable, part of the [qualitative] research process" (Coffey & Atkinson, 1996), but they are not an end in themselves. Coding works well to capture the commonalities of experience across cases but less well to capture the individual uniqueness within cases. As Sandelowski (1996) pointed out, "looking at and through each case in a qualitative project is the basis" of analytic interpretations and generalizations (p. 525). Analysis of individual cases enables the researcher to understand those aspects of experience that occur not as individual "units of meaning" but as part of the pattern formed by the confluence of meanings within individual accounts. Decontextualizing techniques such as codes and matrices fragment such meanings and make them difficult or impossible to identify.

Interpretive techniques designed to be used within individual accounts or cases (see, for example, Brody, 1987; Denzin, 1989; Kleinman, 1988) provide a wealth of contextual richness and person-specific information without which that case cannot be understood. These methods are also often used to explore the nature of stories, their components, or ways in which stories might be elicited or interpreted. Within-case methods are less useful in the development of generalizations about health and illness experience drawn from across multiple cases. Neither across-case nor within-case approaches alone enable the researcher to interpret an experience both through its parts and as a whole, such that readers can recognize individual experience in a generalizable way. The purpose of this article is to demonstrate three different researchers' efforts to achieve this somewhat paradoxical goal.

THREE STORIES ABOUT WITHIN- AND ACROSS-CASE ANALYSIS

In the following section, each investigator reports on a qualitative study in which within-case and across-case analytic strategies were integrated. Each researcher made different choices about the balance of within- and across-case strategies. These choices were influenced foremost by the purpose of the study but also by specific data management and analysis practices prescribed by the method. Although each investigator conducted analyses within individual cases and across multiple cases, each example illustrates a different blend of interpretive choices, analytic strategies, and research aims. The three studies from which these examples were drawn are a phenomenological investigation of the lived experience of perinatal loss, a narrative analysis of family caregiving, and a concept development study of families' management of a child's chronic illness. Each investigator speaks in her own voice of her own research experience. First, Karen Kavanaugh discusses her phenomenological study of parents' lived experience of the death of an infant weighing less than 500 grams at birth, in which she identified the essential structure of perinatal loss (Kavanaugh, 1997). For this section, the first-person pronoun refers to Kavanaugh.

TABLE 1:   Within- and Across-Case Analytic Strategies for a Study of Parents' Experience of Perinatal Loss

Strategy	Analytic Focus	Product
Analytic immersion in all interviews	Within all cases	Sense of the lived experience of the phenomenon
Immersion in each interview	Within each case	Identification of significant statements
Comparisons of significant statements	Across cases	Identify categories of statements common to all participants
Reconnection of significant statements to interviews	Within and across all cases	Ascertain fidelity to original accounts
Intuiting, critical reflection	Within and across all cases	Identification of themes
Free writing	Within and across all cases	Answer question, "What would parents want the world to know about their experience?"
Organize categories of significant statements by themes	Set of significant statements	Essential structure
Return analysis to participants	Essential structure, summaries of themes	Evocation and intensification

The Essential Structure of Perinatal Loss: Evocation and Intensification (Kavanaugh)

In this phenomenological study (Kavanaugh, 1997), the goal was to develop the essential structure of perinatal loss using the methods developed by Colaizzi (1978). The goal of this study was not to identify individual variation but rather to elicit and describe those aspects of the phenomenon that are common to all, consistent with recommendations by Colaizzi. To accomplish this goal, the investigator must make sense of each individual account and then compare across those accounts to identify themes that are common to all respondents' accounts. The steps in this analysis are summarized in Table 1.

After data collection was completed, my first analytic activity was to immerse myself in the data, reviewing interview transcripts from all participants. This activity was necessary to acquire a feeling for the experience of loss among all respondents. Then, I returned to each respondent's account to identify significant statements, which were those phrases, sentences, or paragraphs that related directly to the experience of the perinatal loss. The purpose of this phase of the analysis was to describe aspects of the phenomenon as experienced by each individual respondent. The product of this analytic immersion was a collection of significant statements for all cases. Next, I compared the significant statements from each individual account with every participant's account, paying particular attention to the commonalities across respondents. The purpose of this across-case analytic strategy was to compare the experience of all participants and identify categories of significant statements that were common among them. Once the categories were identified, I reconnected each significant statement to its original context and validated the categories; I wanted to be certain to account for everything that was significant from the original accounts without introducing ideas not represented in those original accounts.

This strategy of moving between across- and within-case comparisons facilitated the process of intuiting. Intuiting is the critical reflection on and identification of themes as they are found in the accounts of the multiple respondents (Swanson-Kauffman & Schonwald, 1988). I was able to make these intuited themes explicit through free writing, which is the final phase of intuiting. During free writing, I responded to the question "What is it that the parents want the world to know about the experience?" with the identification of six common themes. I then grouped the significant statements according to these themes and developed a set of subthemes for each. Subthemes, unlike the more general themes, included examples drawn from informants' accounts. Summaries were also developed for each theme. Summaries contained a description of the theme as it applied to all cases and included all of its subthemes. The common themes formed the essential structure, which was the fundamental framework of the phenomenon.

Colaizzi's (1978) approach directs the investigator to return a description of the essential structure to research participants for evaluation as part of the final phase of analysis. As I reread the essential structure, I became concerned. The essential structure met the identified goal of the method in that it reflected commonalities of experience across all participants. In my opinion, the essential structure failed to portray the intensity of personal tragedy that I had identified through immersion in individual accounts. In addition, I was concerned that the participants who read the essential structure and whose losses were still recent might feel that I had missed or minimized the significance of their stories. With the goal of protecting my respondents from harm, I also sent them summaries of each theme with its attendant subthemes because the subthemes better conveyed the uniquely personal dimensions of loss. As it turned out, my concern was justified; one respondent rejected the essential structure because, in her opinion, it underrepresented her suffering. For this participant, the generalizations of the essential structure were an inadequate description of her experience.

According to van Manen (1997), one goal of phenomenology is evocation, which serves to bring experience "vividly into presence" (p. 353), a goal sometimes not met by scholarly writing in the human sciences. van Manen also stated that phenomenologists have a responsibility to use language beyond thematic description and conceptual meaning for the purpose of what he called "intensification" (p. 355). According to van Manen, intensification is accomplished by the use of a narrative that safeguards phenomenological meanings. Evocation and intensification were important to the participants in my study. Even though the phenomenological method requires an emphasis on across-case commonalities, this across-case synthesis achieves authenticity from the investigator's analytic immersion within individual cases. Immersion served the purposes of intensification and evocation for me at the beginning of the analysis, when I identified significant statements, and again during the process of intuiting, when I identified those aspects of the experience that participants would most want the world to know. In this study, within-case analyses of each whole account intensified and evoked each individual's experience of perinatal loss, and attention to intensification and evocation in turn preserved the richness of individual experience in the descriptions of subthemes. Across-case comparisons were a secondary strategy used primarily to ensure that the essential structure accounted for everything that was significant from the original accounts and did not impose an interpretation on an individual case that had not occurred within the original account. Although the essential

structure alone was not adequate to evoke the intensity of the original experience, the summaries of each theme, including subthemes, successfully captured the intensity of participants' lived experience.

In contrast to phenomenology, research using narrative methods emphasizes analysis within individual accounts; narrative theory, derived from literature, was not designed to compare multiple accounts of similar experiences. Below, Lioness Ayres describes her use of both close reading within individual accounts and across-case coding and sorting in a study of family caregiving. In the following section, the first-person pronoun refers to Ayres.

Family Caregiving: Narrative Generalizations (Ayres)

The purpose of my study of family caregivers (Ayres, 2000a, 2000b) was to identify the meanings caregivers made out of their situations and to explore the contexts in which these meanings occurred. To examine meaning, I chose narrative inquiry as described by Poirier and Ayres (1997), a method that directs the attention of the investigator beyond the words of an individual's account of experience. Narrative inquiry is based on the assumptions that narratives are purposeful, that narrators' selection and ordering of events reflects underlying meanings (Sandelowski, 1991), and that storytellers' choices of, among other narrative devices, plot, character, and voice are clues to the story's implicit meaning (Poirier & Ayres, 1997). Thus, stories serve the same purpose for research participants as they do for the investigator: They make meaning out of experience.

Every story is uniquely personal, and there is little in narrative theory (which is drawn from literary criticism) to justify or to guide across-case analyses. Contrariwise, the assumption that each story is a unique and personal interpretation of events implies that even individuals in externally similar circumstances are likely to interpret those circumstances differently. Individuals take the same ingredients for a story—a family, a diagnosis, a hospitalization, disability, the tasks and responsibilities of care at home—and turn them into any number of different stories in which these same events can have very different meanings. For these reasons, the narrative researcher must understand and interpret these stories as self-contained wholes.

Narrative inquiry requires close reading of individual cases. To this end, I used the narrative tools described by Poirier and Ayres (1997) as "overreading." Overreading is a within-case analytic strategy by which the researcher looks for meaning that is implicit rather than explicit in the interview text. When overreading, I identified repetitions, in which particular words or phrases recurred throughout an interview; omissions, in which salient topics were avoided or evaded, for example by the respondent answering an interview question with a story on another topic; and incongruencies, in which assertions or beliefs stated in one portion of the interview were contradicted in another portion. Repetitions, omissions, or incongruencies occur within the boundaries of an individual account. There is no assumption in overreading that information in one story would appear in the same way, or would appear at all, in other stories.

I wanted to find commonalities and variations among the experiences of the caregivers in my study to develop some generalizations about family caregiving, even though across-case comparisons were not supported by narrative theory.

Therefore, in addition to the close reading I used to discern meaning within individual accounts, I also coded and sorted the data to track themes and patterns across cases. At the same time, I conducted within-case comparisons on each theme within each informant's account. For example, in response to a question in the interview schedule, all informants described the kind of relationship they had with the care receiver. Many caregivers described reciprocal relationships characterized by an exchange of support; others described their relationships as a reversal of roles; still other caregivers described their relationship with the care receiver as custodial; and a few described their relationship with the care receiver as antagonistic, characterized on both sides by ill will and uncivil interactions. Within-case comparisons for each informant's account on the theme of relationship revealed a few accounts in which the relationship was characterized as antagonistic during some parts of the interview and as reversed roles, mutually supportive, or custodial in other parts; that is, the data coded on relationship within these accounts were incongruent. Because good evidence could be found for more than one definition of the respondent's relationship with the care receiver, these interviews could not reliably be described by the existing typology of relationships. On the contrary, such a description would have involved a judgment on my part as to which evidence to accept and which to discount. Instead, I developed a separate category called Ambiguous to describe caregiver accounts in which multiple definitions of relationship were represented. Ambiguity occurred not only in the theme of relationship but also in other themes in the analysis; that is, ambiguity was a characteristic that crossed both cases and themes. Thus, ambiguity itself qualified as a theme in the analysis and led eventually to the development of a story type called Ambiguous Stories.

This iterative process of comparisons at all levels in all accounts is called the hermeneutic spiral (Tesch, 1990). In the hermeneutic spiral, "the analyst moves back and forth between individual elements of the text and the whole text in many cycles" (p. 68). In this study, I expanded the notion of "the text" to include all of the interviews in the sample, developing what Iser (1980) called a "virtual text" (p. 50; see also Ayres & Poirier, 1996). This rigorous process of reflection and reinterpretation enabled me to track thematic variation found across cases without stripping away the individual context essential to narrative inquiry. The research findings were grounded in close reading within individual cases and extended by thematic comparisons across cases. The integration of these analyses led to the identification of four types of stories about family caregiving. The four story types recontextualized variations across themes into typical stories, generalizations drawn from all the representative stories in each group. These stories provided insights into four different responses to caregiving and had the potential to be generalized to other caregivers.

In contrast to the analytic process described by Kavanaugh, in which she identified the essential structure of a phenomenon that described all cases of perinatal loss, this study of family caregivers found four distinct story types based on the meanings participants made of their experience. The same general themes, such as the informant's view of the relationship between caregiver and care receiver, occurred across all story types. Informants' accounts provided different realizations of those themes, and those differences occurred in distinctive patterns depending on the type of story the informant told.

Studies in which the individual is not the unit of analysis demand even more complex analytic strategies. Family research, an important area of nursing research,

challenges the investigator both to understand the collective experiences of the individuals who make up the family and to compare these experiences to those of other families. In an example of qualitative family research, Kathleen Knafl discusses a study of family response to childhood chronic illness (Knafl, Breitmayer, Gallo, & Zoeller, 1996). For this section, the first-person plural pronoun refers to the research team: Kathleen Knafl, Bonnie Breitmayer, Agatha Gallo, and Linda Zoeller.

Childhood Chronic Illness:
Integrating Individuals and Families (Knafl)

The purpose of the study "How Families Define and Manage a Child's Chronic Illness" (DMCI) was to develop further the concept of Family Management Style (FMS). The initial conceptualization was based on a formal concept analysis (Knafl & Deatrick, 1990) in which FMS was defined as the configuration formed by individual family members' definitions of the situation and management behaviors. In the DMCI study, we wanted to focus on the family as the unit of analysis. We were concerned from the outset with balancing within- and across- case analysis of families as well as with incorporating the perspectives of multiple family members in our identification of FMSs. Based on the initial concept analysis of FMS, we wanted to identify major defining, managing, and other emergent themes that made up FMS as well as specific subthemes that differentiated distinct management styles.

We collected data from more than 60 families. In each family, intensive interviews were conducted with at least 2 (parent and ill child) and as many as 4 (father, mother, ill child, well sibling) family members. Because we also were interested in the stability of FMSs over time, we scheduled two data collection sessions with each family, with a 12-month interval between sessions. By the end of data collection, we had interviewed approximately 200 family members, most of them on 2 occasions, and had generated over 10,000 pages of interview transcript.

Our plans for analysis called for using individual family members' reports of how they defined and managed childhood chronic illness as the building blocks for further conceptualizing family management styles. This goal was achieved through the following process:

1. identification of general defining and managing themes that shaped the illness experiences of all families;
2. delineation of the variation within these general defining and managing themes;
3. creation of a thematic profile for each family member and the family unit as a whole; and
4. differentiation of FMSs.

This analytic sequence entailed a shifting emphasis within and across cases. We made a series of analytic comparisons: within individual family members' accounts, within-family accounts synthesized from across family members, and across-family units. To identify general themes related to how families defined and managed illness, we used data management and analysis techniques that emphasized commonalities across individual accounts through data coding and sorting. Then, to create thematic profiles of families, we developed analytic strategies that allowed us to link the thematic profile of each family member into an overall family profile. Finally, to differentiate specific FMSs, we turned our attention across all

TABLE 2:   Within- and Across-Case Analytic Strategies for a Study of Childhood Chronic Illness

Comparison	Purpose	Strategy	Product
Within individual family members	Identify important aspects of the experience	Close reading of individual interviews and summaries	Coding categories, themes
Across individual family members	Identify variation around themes	Data coding and display	Subthemes
Within family units	Identify configurations of themes within families	Close reading of individual interviews and summaries	Additional themes based on within-family discrepancies
Across family units	Compare FMS across families	Relational database display, interviews, summaries	Refined FMS, exemplar cases

families in the search for thematic patterns that characterized subgroups of families. In the remainder of this section, we discuss the data management and analytic strategies that supported the analytic sequence summarized above. This sequence of data management and analysis strategies is summarized in Table 2.

To identify defining and managing themes and subthemes, we read the interview transcripts and, later, individual case summaries with the intent of discovering what individual family members talked about as important aspects of the illness experience (defining themes) and the behaviors they used to address the challenges the illness presented (managing themes). We compared these accounts with one another to identify the full range of defining and management themes reflected in our sample, rather than to develop detailed descriptions of each family's experience. Similarly, we compared interviews across individual respondents to develop the subthemes that reflected variations in how a given theme was manifested across families. These themes and subthemes, which arose from the initial analysis of the FMS concept, were the conceptual building blocks for the specific styles we were developing.

Although the themes and subthemes defined the major components of FMS, they did not carry us beyond abstract conceptualization and into what Sandelowski (1996) called "the nuances and contradictions of real life experiences" (p. 527) of families managing a child's chronic illness. To understand FMS, we needed to know how the themes and subthemes fit together. For us, the thematic configurations that characterized individual family members and the family unit provided the contextual information needed to achieve this goal. For example, parents who viewed their child as normal and were confident of their ability to manage the illness had a different experience of illness management than parents who viewed their child as normal but viewed illness management as a burden. The themes and subthemes we had identified became meaningful only when seen in the context of all of the themes as they were reflected across individuals and families.

The next phase of the analysis entailed creating thematic profiles of each family member and the family unit. To develop thematic profiles, we reread all our transcripts, this time comparing individual accounts across the members of their respective family units. This level of comparison led to the identification of several additional themes based on differences (that is, differences within cases) among the ways in which individual family members defined or managed the situation.

As an additional strategy to integrate within- and across-case analyses, individual and family accounts were formalized by narrative case summaries, whereas across-case comparisons were displayed using a database manager, as has been described in detail elsewhere (Knafl & Ayres, 1996). We used a grid display of subtheme categories to identify similar thematic patterns that comprised the distinct FMSs. Whereas the initial comparison of individual family members had entailed reading interview transcripts to identify themes and delineate subthemes, in the grid analysis, we used comparisons across family cases to identify clusters of families with similar configurations of subthemes. This process resulted in the identification of five FMSs (Thriving, Accommodating, Enduring, Struggling, and Floundering). To describe the content of each style in a way that communicated the complexity of families' experiences, the investigators returned to the narrative family case summaries and individual interview transcripts, which were now grouped according to FMS category. Descriptions of each FMS included a discussion of the overriding themes characterizing the style as well as a presentation of the subthemes that constituted the style. In addition, an exemplar case for each FMS was developed to provide a real-world example of how the various subthemes converged in each FMS.

As we engaged in these analytic processes, we came to appreciate the benefits of incorporating rigorous within- and across-case analytic strategies. Across-case analysis contributed to the identification of themes and relationships among themes that characterized the illness experiences of a broad range of families. At the same time, within-case analysis made it possible to develop themes in a way that took into account particular factors that shaped the illness experiences of individual family members and the family unit as a whole. Moreover, within-case comparisons contributed to our ability to present the results of our analysis, the five FMSs, in a way that took advantage of the richness of our data set and did justice to the complexity of these families' experiences.

CONCLUSION

Qualitative analysis, like its statistical counterpart, depends on the identification of key elements in the phenomenon under investigation. In statistical analysis, these elements are identified a priori at the conceptual level and subsequently operationalized as variables, as measurable aspects of the construct that are assumed to differ across circumstances (see, for example, Kerlinger, 1986). Hypothesized relationships among variables recontextualize these data into information about the sample, and this information into testable propositions about a population in the natural world. Statistical analysis of these propositions provides a generalizable conclusion about the hypothesis. These conclusions are referred to as nomothetic generalizations, which are reflections of underlying natural laws or processes (see, for example, Lincoln & Guba, 1985; Sandelowski, 1996).

In qualitative analysis, key elements in the data are called *themes*. Some might enter the analysis a priori; others are developed during the study (Coffey & Atkinson, 1996; Patton, 2002; Sandelowski, 1993). Themes may vary as they are manifested across individuals or might apply in the same way to all members of the sample, depending on both the data and the method. For example, themes in Kavanaugh's (1997) research, described above, were common to all cases, whereas

themes in research described by Ayres and by Knafl varied as they were manifested across groups of cases.

Just as with statistical analysis, key elements in qualitative data analysis must be recontextualized into propositions about the sample. Unfortunately, some qualitative researchers fail to go beyond the production of a list of themes or key categories, a practice described by Richards (1998) as "garden path analysis" (p. 324). In a garden path analysis, researchers present an exhaustive list of themes that were found in the data, but the themes are self-contained and unrelated. For example, Ayres' (2000a, 2000b) study of family caregivers produced themes of recipient identity, relationship between caregiver and care receiver, definition of caregiving, care management strategies, mood management strategies, and rewards of caregiving. Each of these themes can be described in detail, and it might even be possible to identify variations across themes, for example, to describe variations among strategies different caregivers use to manage their moods, but the list of themes alone has little practical value. Until these themes are reintegrated in a manner that shows how they work together in an actual (or constructed) case, the analysis is incomplete. A list of themes has no explanatory force, either in one case or across a set of cases. As Sandelowski (1996) has pointed out, "qualitative analysts are obliged . . . to make sense of individual cases" (p. 525). Without this, nothing can be achieved.

Just as with statistical analysis, the end product of qualitative analysis is a generalization, regardless of the language used to describe it (Miles & Huberman, 1991; Sandelowski, 1996, 1997). In contrast to the nomothetic generalizations provided by statistical analyses, qualitative research produces idiographic generalizations that are developed from the particulars of individual experience. Lists of key elements, whether variables or themes, do not constitute a generalization; they are merely its ingredients. These ingredients might be developed either into a nomothetic generalization, through constructs and variables and the use of measurement, or into an idiographic generalization built from stories told by particular persons in particular circumstances. In and of itself, however, the list of themes is no more useful to the research consumer than the variable list from an SPSS file would be; it is merely the raw materials of the analysis, not the analysis itself.

Idiographic generalizations cannot be developed without the integration of within-case and across-case analysis of the data. Within-case analysis alerts the investigator to the presence of key elements, as shown by Kavanaugh's description of her immersion into individual interviews that led to the identification of significant statements. Later in the analysis, these statements were compared across cases to identify commonalities. Contrariwise, Knafl and colleagues relied more heavily on elements common to all cases, some of which were derived from previous concept analytic work. Knafl described the use of within-case analysis both to recontextualize the ways key elements varied in individual circumstances and to constitute patterns of individual circumstances into families. Ayres' research balanced both approaches, using the within- and across-case analyses synergistically and interactively via the hermeneutic spiral. For each investigator, the product of the analysis was an idiographic generalization that provided both a set of key elements and a recontextualization of those elements into a case or a group of cases.

For each of us, the development of specific strategies to integrate within- and across-case analyses was both deliberate and emergent. We recognized the absolute necessity of understanding the individual account in its own context, and also of developing a synthesis that captured the essence or variation of experience across

individuals. In this article, we have provided examples of strategies we found to be successful; in some ways, they are unique to us and to our analyses. For these reasons, we urge other qualitative researchers to recognize the need for strategies that explicitly identify the use of within- and across-case comparisons and then to share those strategies with other researchers.

REFERENCES

Ayres, L. (2000a). Narratives of family caregiving: Four story types. *Research in Nursing & Health*, *23*, 359-371.

Ayres, L. (2000b). Narratives of family caregiving: The process of making meaning. *Research in Nursing & Health*, *23*, 424-434.

Ayres, L., & Poirier, S. (1996). Virtual text and the growth of meaning in qualitative analysis. *Research in Nursing & Health*, *19*, 163-169.

Baker, C., Norton, S., Young, P., & Ward, S. (1998). An exploration of methodological pluralism in nursing research. *Research in Nursing & Health*, *21*, 545-555.

Brody, H. (1987). *Stories of sickness*. New Haven, CT: Yale University Press.

Coffey, A., & Atkinson, P. (1996). *Making sense of qualitative data*. Thousand Oaks, CA: Sage.

Colaizzi, P. F. (1978). Psychological research as the phenomenologist views it. In R. Valle & M. King (Eds.), *Existential-phenomenological alternatives for psychology* (pp. 48-71). New York: Oxford University Press.

Denzin, N. K. (1989). *Interpretive biography*. Newbury Park, CA: Sage.

Iser, W. (1980). The reading process: A phenomenological approach. In J. Tompkins (Ed.), *Reader-response criticism* (pp. 50-69). Baltimore: Johns Hopkins University Press. (Original work published 1974)

Kavanaugh, K. (1997). Parents' experience surrounding the death of a newborn whose birth is as the margin of viability. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, *26*, 43-51.

Kerlinger, F. N. (1986). *Foundations of behavioral research* (3rd ed.). Fort Worth, TX: Holt, Rinehart & Winston.

Kleinman, A. (1988). *The illness narratives*. New York: Basic Books.

Knafl, K. A., & Ayres, L. (1996). Managing large data sets in family research. *Journal of Family Nursing, 2*, 350-364.

Knafl, K., Breitmayer, B., Gallo, A., & Zoeller, L. (1996). Family response to childhood chronic illness: Description of management styles. *Journal of Pediatric Nursing: Nursing Care of Children and Families*, *11*, 315-326.

Knafl, K. A., & Deatrick, J. A. (1990). Family management style: Concept analysis and development. *Journal of Pediatric Nursing: Nursing Care of Children and Families*, *5*, 4-14.

Lincoln, Y. S., & Guba, E. G. (1986). *Naturalistic inquiry*. Thousand Oaks, CA: Sage.

Miles, M. B., & Huberman, A. M. (1991). *Qualitative data analysis* (3rd ed.). Newbury Park, CA: Sage.

Patton, M. Q. (2002). *Qualitative evaluation and research methods* (3rd ed.). Thousand Oaks, CA: Sage.

Poirier, S., & Ayres, L. (1997). Endings, secrets, and silences: Overreading in narrative inquiry. *Research in Nursing & Health*, *20*, 551-557.

Richards, L. (1998). Closeness to data: The changing goals of qualitative data handling. *Qualitative Health Research*, *8*, 319-328.

Sandelowski, M. (1991). Telling stories: Narrative approaches in qualitative research. *Image: Journal of Nursing Scholarship*, *23*, 161-166.

Sandelowski, M. (1993). Theory unmasked: The uses and guises of theory in qualitative research. *Research in Nursing & Health*, *16*, 213-218.

Sandelowski, M. (1996). One is the liveliest number: The case orientation of qualitative research. *Research in Nursing & Health*, *19*, 525-529.

Sandelowski, M. (1997). "To be of use": Enhancing the utility of qualitative research. *Nursing Outlook*, *45*, 125-132.

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.

Swanson-Kauffman, K. M., & Schonwald, E. (1988). Phenomenology. In B. Sarter (Ed.), *Paths to knowledge: Innovative research methods for nursing*. New York: National League for Nursing.

Tesch, R. (1990). *Qualitative research*. New York: Falmer.

van Manen, M. (1997). From meaning to method. *Qualitative Health Research*, 7, 345-369.

Lioness Ayres, Ph.D., RN, is an assistant professor of nursing at the University of Wisconsin–Madison.

Karen Kavanaugh, Ph.D., R.N., is an associate professor of nursing at the University of Illinois at Chicago.

Kathleen A. Knafl, Ph.D., F.A.A.N., is a professor of nursing at Yale University.