Qualitative research: specific designs for qualitative research in emergency care?

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ABSTRACT
This article follows our description of generic qualitative approaches, focusing on the specific designs of ethnography, grounded theory and phenomenology. Distinguishing features are described, including methodological approaches and methods for enhancing rigour. The use of these designs in emergency care is unusual but informative, and important work has been produced. Whether used in a pure or applied manner, it is likely that such approaches will add to our understanding of the emergency world.

In our first article on qualitative methods in emergency care, we described best practice for generic approaches.1 In this work, we noted that many researchers claimed a qualitative approach with a design that was influenced by generalist and pragmatic approaches to clinical questions. These generic approaches are also described as interpretative description2 or qualitative description3 and are a useful addition to the emergency care researcher’s tool set. The rigour of the work can, however, be challenged when the researcher fails to cite or follow the principles of a design or where a mixture of methods—for example, generic and grounded theory.4–7 may contravene the principles and approach of the more specific design. Qualitative research can enrich our understanding of emergency care, such as the exploration of Lindblad and Sjöström of nurses’ perspectives of battlefield emergency care, but it is important to understand the philosophical approaches and the underpinning processes to be able to fully understand the outcomes and to repeat the study with different groups.

In this article, we focus on three specific qualitative designs: ethnography, grounded theory and phenomenology. All enable the researcher to develop theory (inductive research) in contrast to testing a theory (deductive research). These “interpretative” approaches (in contrast to critical feminist and action research designs) aim to describe and understand an issue and do not attempt to generalise; however, the methods and the researcher’s role vary according to the methodology (table 1). For example, in phenomenology, observation may be used to identify aspects of “lived experience” to explore in later in-depth interviews, whereas in ethnography, observation is the central data collection method used for identifying the characteristics of a culture and community.

As a background review, we performed a search of Medline, CINAHL PLUS, BNI, Google and Google Scholar for papers relating to ethnography, grounded theory and phenomenology in the emergency care field. Thirteen papers were identified that had an emergency care focus incorporating one of the designs.

For example, in ethnographic approaches, Fry and Stainton9 examined the context of triage care, identifying the gatekeeping, timekeeping and decisions processes, with the aim of improving educational support. Ware et al24 focused on the meaning of the continuity of care in a psychiatric emergency admission unit, incorporating field observations and open-ended interviews. Cole and Crichton17 explored the culture of a trauma team in relation to human factors (leadership and teamwork), and Laxmisan et al examined emergency department (ED) patient safety issues in relation to multitasking and shift changes using observation and interviews.

In phenomenology, Chan19 describes ED clinicians’ experience in relation to end-of-life decisions and the care of the dying to describe personal, cultural, ethical, clinical and environmental factors. Byrne and Heyman17 used a grounded theory approach to data collection and analysis in a study of how nurses’ perception of their patients and work may influence patient communication in ED. Finally, Cairo20 also used grounded theory to examine emergency physicians’ attitudes towards collaborative practice with emergency nurse practitioners.

From this diverse set of studies, it is clear that these designs do have a place in the description of emergency care and for our understanding of practice. In the following, we summarise the central tenets for each of these three approaches.

DESIGNS
Ethnography
Mertens21 describes ethnography as a research method designed to describe and analyse practices and beliefs of cultures and communities—for example, Shaban’s22 work on paramedic culture and community. Ethnography has been the traditional domain of anthropologists, and as Wolcott23 states, “if cultural analysis is not your goal, then ethnography is a misnomer” (p69). Culture itself can be defined by two components: a pattern for behaviour and a pattern of behaviour,24 in other words, the behaviour, beliefs, ideas and knowledge of a group.

The objective is to understand the culture from an outsider’s (etic) perspective and from the insider’s perspective (emic), hence the predominant use of observation and interviews as data collection methods. The researcher must also be willing to adapt or abandon theories that do not fit the
Observation

Observation in ethnographic studies is performed in the participant’s own “naturalistic” setting and is often participative. The duration can vary from a single to multiple long-term studies, but the focus is on “spending time” with participants, usually moving from a broad to narrowed focus over time. Researchers need to be cognisant of the need to “gain access” and their initial role as a “stranger”, aiming for a balance between establishing trust and empathy and the need to attune to the group they are studying.24

Observers may make field notes, which inform later interviews (the diary interview) and may collect data in both quantitative and qualitative forms on—for example, location, participants (actors), and global and individual behaviour measures.

Interviews

Ethnographers tend to use informal and formal interview techniques incorporating both focus groups and unstructured interviews. Reliance on social interaction to build rapport and generate knowledge is paramount, with topics, as opposed to questions, being used to generate a free interchange of ideas between interviewer and respondent. Descriptive questioning techniques are selected to encourage respondents to describe their experiences, with applicable probing and prompting, leading from a broad to “funnelled” approach to questioning.24

Sample sizes vary, but rules of thumb indicate approximately 30–50 interviews for an ethnographic study.21 (p271). However, sample size depends also on factors such as the population size, focus of the work and the need to sample to the point of maximum variation in the sampling, with the goal of seeing how far the emerging theory will “stretch”. Second, sampling continues until saturation is reached; that is, no new data emerge. It is important, however, to avoid “early closure” of sampling; saturation-based sampling requires the seeking out of as many different variations, or conditions, as possible. Indeed, McPherson and Thorne10 justified their sample size of 200 participants for a qualitative study on the grounds that they were able to examine the exceptions in the data in some depth.

Data analysis

Data analysis requires the coding of incidents in the data, identifying categories and building themes, which are then verified, confirmed and qualified in the body of data. Codes, categories and themes may all be reworded as analysis unfolds. It is common practice for researchers to use a grounded theory approach to data analysis while not following the conventions of grounded theory for data collection or sample selection. For example, Foster and colleagues31 used a grounded theory approach to data analysis in their study of older people’s perceptions of out-of-hours services, and Sklar and colleagues32 used a grounded theory thematic analysis to examine circumstances and the contributing factors in unexpected deaths after
discharge from ED. However, for both of these studies, sampling was purposive, rather than theoretical, with sample size seemingly predetermined rather than based on data saturation.

**Phenomenology**

Phenomenology is best described as a “movement” rather than an inflexible set of rules that present a homogenous vista. It values human experience and the meanings and understandings ascribed to that experience. There are three key protagonists of phenomenology: Husserl, Heidegger and Gadamer. Husserl, regarded as the father of phenomenology, moved away from Cartesian dualism and advocated philosophical questions about subjectivity and consciousness. He was firmly positioned from an epistemological viewpoint. The method suggested by Husserl requires researchers to suspend their acceptance of the phenomenon in question (bracketing) and, through phenomenological reduction, uncover the rational principles that underlie that phenomenon. On the other hand, Heidegger, who was a student of Husserl, disagrees with the notion of bracketing. Heidegger considered the world from an ontological perspective and viewed people as beings-in-the-world, experiencing phenomena. He examined the structure of questioning itself and, in doing so, suggested that to raise a question, the questioner must have some idea of what to ask. Thus, he created the concept of a hermeneutic circle and proposed that all questioning is reflexive and reflective of the subjectivity and consciousness. He was firmly positioned from an epistemological viewpoint. The method suggested by Husserl requires researchers to suspend their acceptance of the phenomenon in question (bracketing) and, through phenomenological reduction, uncover the rational principles that underlie that phenomenon. On the other hand, Heidegger, who was a student of Husserl, disagrees with the notion of bracketing. Heidegger considered the world from an ontological perspective and viewed people as beings-in-the-world, experiencing phenomena. He examined the structure of questioning itself and, in doing so, suggested that to raise a question, the questioner must have some idea of what to ask. Thus, he created the concept of a hermeneutic circle and proposed that all phenomenological inquiry are not new at face value; however, the description can illuminate a different perspective of the phenomenon in question. Lyneham et al. for instance, identified six interrelated themes providing a different perspective about intuition: knowledge, experience, connection, feeling, syncrism and trust.

**SUMMARY**

Each of the above methods can be used in a pure or applied dimension. For example, Kihlgren et al. used a grounded theory approach to examine older peoples’ experience of awaiting ED treatment and relate this to nurses’ goal action (praxis orientation) and attitudes and relationships (poiesis orientation). The principles of grounded theory, however, were only being applied to data analysis, not to data collection. Similarly, most ethnographic studies undertaken in the ED would not require the researcher to “live among” the ED community, and the resulting paper would not be a full “ethnography” of the subcultures of the ED.

The core principles for establishing rigour in qualitative research remain unchanged whatever the approach. Cooper and Endacott described these in full, but in summary, researchers must consider (and report) their reflexivity, described as “sensitivity to the ways the researcher and the research process have shaped the collection of data, including the role of prior assumptions and experience”. Other considerations include the retention of clear and accurate records with a full description of the research process (the audit trail), sampling to the point of saturation, triangulation of data (and of methods), respondent feedback (returning to respondents with an account of the provisional findings), collection of a wide range of perspectives (fair dealing), and inter-rater reliability.

Although used much less frequently than quantitative research, qualitative approaches do add value to our understanding of the ED world. As Maclean suggests, “for me only a subjective view enables us to understand and emphasize with an unfamiliar people and place” (p8). But of course, the bottom line is to select a design that will best answer your question and to stick with it, whether this is quantitative, qualitative or a mixed-method approach.

Mixed methods are the focus of a future paper and are defined as the use of qualitative and quantitative approaches in the same study, an approach that is particularly useful where complex problems are explored (see, eg the recent evaluation of ED services undertaken by Mason et al.). In summary, the approach requires a series of decisions to be made regarding:

1. The relative “weight” of the different approaches, usually driven by whether the research is primarily inductive or deductive;
2. Steps taken to “mix” the data, a crucial step to avoid the inequality that may arise if qualitative or quantitative data are given priority in step 1. Data may be integrated
or “mixed”) during data collection, data interpretation or in the discussion of findings;
3. Timing of data collection, usually determined by the stage at which the data will be mixed. If data mixing is undertaken during discussion of findings, the sequencing of qualitative and quantitative data collection will not be crucial.

Many of these decisions are not made explicit in papers resulting from mixed-methods studies; however, it is essential that they are addressed during the design phase.

Either way, there is great value in using qualitative methods to enrich our understanding of emergency medicine, and a mixed approach adds depth and breadth to the research and its findings.

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