

9

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Grounded theory: the methodology

Introduction

The purpose of this chapter is to explore the main features and nature of grounded theory. The origins and history of grounded theory will be considered and the research process examined, with particular emphasis on the characteristics that make it different from other qualitative research approaches. Critical issues such as the erosion or evolution of the methodology and its relevance to health-care practitioners will also be explored.

The nature of grounded theory

Grounded theory is one of the main approaches to qualitative research (although it was not initially intended as a purely qualitative method). A number of key features, however, ensure it maintains its own unique identity. Of these the development of theory is particularly important (Glaser and Strauss 1967; Strauss 1987; Glaser 1998; Strauss and Corbin 1998). Theory explains and provides insight into the phenomenon under study. Grounded theory is therefore a creative process that is appropriate to use when there is a lack of knowledge or theory of a topic (Glaser and Strauss 1967; Schreiber and Stern 2001), where existing theory offers no solutions to problems (Chenitz and Swanson 1986) or for modifying existing theory. Glacken *et al.* (2003), for instance, chose grounded theory for their study of the experience of fatigue in individuals living with hepatitis C because this phenomenon had not previously been explored in patients with liver disease. Grounded theory also identifies a series of events and how these change over time which is appropriate when patients have to live with a medical condition. It will be shown that the development of theory is facilitated through an interactive process of collecting and analyzing data.

Origins and history

Grounded theory was first developed by two American sociologists, Glaser and Strauss, in the 1960s when they explored the experience of patients dying in hospital (Glaser and Strauss 1965, 1968). Glaser with a background in quantitative research and Strauss with a grounding in qualitative research sought to understand human beings and their behaviour by developing systematic and detailed procedures which would be viewed as scientific.

Their original text (Glaser and Strauss 1967) provided some insight into how to undertake a grounded theory study, but over the years the method has been refined and become more transparent with the publication of *Theoretical Sensitivity* (Glaser 1978), *Qualitative Analysis for Social Scientists* (Strauss 1987) and *Basics of Qualitative Research* (Strauss and Corbin 1990, 1998). The real essence of grounded theory has, however, become an issue for debate. Glaser (1992) strongly believes that his approach is grounded theory, and that Strauss has developed a new method which should be called 'full conceptual description'. Other well-known researchers such as Stern (1994) debate the question whether the methodology has evolved or been eroded. Glaser has since written a number of texts that he sees as being in the spirit of the original grounded theory approach (for instance, 1998 and 2001).

Glaserian and Straussian perspectives of grounded theory

Over the years two perspectives of grounded theory have emerged (Strauss and Corbin 1990; Glaser 1992) although Stern (1994) and Schreiber (2001) suggest these differences have always existed and evolved over time. This may be a reflection of the different background of Glaser and Strauss. Their differences became a public issue with the publication of Glaser's (1992) book in response to the collaborative work by Strauss and one of his former students (Strauss and Corbin 1990). Glaser verbally attacks Strauss for deviating from what he regards to be grounded theory and requests him to withdraw *Basics of Qualitative Research* (Strauss and Corbin 1990) because it 'distorts and misconceives grounded theory'. Strauss and Corbin (1990, 1998) adopt a detailed, systematic and more prescriptive approach, which, according to Glaser (1992), forces the development of theory. Glaser (1992) believes that more flexibility allows the theory to emerge. The differences between these two approaches will be considered as each component of the research process is explored.

Glaser (1992) believes that Strauss and Corbin (1990) eroded the method by omitting some of the original procedures (his subsequent work, mainly in 1998 and 2001 develops his recent ideas on the debate). Strauss and Corbin assert that their approach has evolved (Strauss and Corbin 1994), and that over time they have adapted grounded theory to meet the needs of the phenomenon under study. However, Strauss and Corbin (1994) also express concern that the increasing popularity of grounded theory has resulted in researchers who lack understanding of some of its components. Thus the latter do not always set out to develop theory, fail to develop a dense theory or believe they are using grounded theory because

they are using an inductive process. Strauss and Corbin (1994) acknowledge that the lack of clarity in the original text (Glaser and Strauss 1967) may to some extent account for this. However, one could argue that all approaches evolve over time, some of the original ideas may be modified and new concepts and procedures added in the process of carrying out the research. Glaser (1998), however, talks about 'rhetorical wrestling' and states that there is no need to rewrite and that everything necessary is already contained in previous texts.

Symbolic interactionism

The assumptions on which grounded theory is based are rooted in symbolic interactionism which, according to Travers (2001), can be viewed from a number of perspectives. Blumer (1971) who articulated the views of Mead (1934) believed that the behaviour of individuals and the roles they adopt are determined by how they interpret and give meaning to symbols. The meaning of symbols such as language, dress and actions is shared by individuals within a culture and is learnt through a process of socialization. Behaviour is therefore influenced by the context in which it takes place. It is the meaning given to these symbols, which enables the behaviour of others to be predicted. Individuals respond to these predictions by adapting their behaviour towards others. Human behaviour and the roles that individuals fulfil are therefore negotiated and renegotiated in a process of interaction and consequently change over a period of time rather than remaining static. Feedback from these interactions enables individuals to recognize how others perceive them and hence develop a perception of 'self'. The self is therefore influenced by the expectations of others and by the example that they set. Individuals can respond to others without thought, but interpretation of symbols implies a cognitive analysis. People thus have active control of the way they present themselves rather than passively allowing themselves to be moulded by the environment. Reality of the self and the environment is therefore socially constructed. The social processes within these interactions are explored. In doing so, grounded theory makes explicit the reality of how individuals perceive their world and the way they interact with others.

Glaser and Strauss (1967) accepted the fundamental principles of Mead's perspective of symbolic interactionism. Although an inductive process, like all approaches to qualitative research, grounded theory – particularly Straussian grounded theory – seeks to make theoretical assertions that can subsequently be tested and verified and is hence deductive as well as inductive. The systematic approach to data collection and analysis and the use of terminology such as working hypotheses, variables and precision emphasize its link with the quantitative paradigm. Pidgeon (1996) comments that in saying theory is 'discovered from data' Glaser and Strauss (1967) imply an objective relationship between psychological and social events. When placed on a continuum with other qualitative approaches grounded theory can be sited closest to the quantitative paradigm (Cluett and Bluff 2000) when compared with other qualitative approaches.

The research question and the use of literature

The research question identifies the phenomenon to be studied. The area of the study needs to be broad, at least initially. Glaser (1992) believes that if the focus is too narrow there may be insufficient data to formulate a theory. Strauss and Corbin (1998) emphasize that the focus narrows as the study progresses and the important issues emerge, 'progressive focusing' occurs. Although there is still openness to discovery the focus is on the evolving theory. Some studies begin with a question while others may state an aim. Specific objectives are avoided as these determine the focus of the study from the beginning and inhibit the process of discovery.

A literature review is an overview of the literature on issues relevant to the phenomenon to be studied. There is a debate about the timing of the literature review. It is recognized that preconceived ideas can inhibit the process of discovery; they can provide a framework for data collection that results in confirmation of what is already known about a phenomenon (Glaser and Strauss 1967; Glaser 1992; Strauss and Corbin 1998). Theory is generated from and grounded in the data. For this reason Glaser (1978, 1992, 1998) does not believe an initial review is appropriate. However, avoiding a literature review prior to commencing a study will not necessarily eliminate any preconceived ideas. If the phenomenon under study is related to the researcher's own practice setting then knowledge and experience of the phenomenon is inevitable. Morse (2001a) believes that an initial literature review combined with bracketing prior assumptions provides novices with knowledge that they can then use to compare with their categories as they emerge. In this way they are less likely to become swamped in data. This comparison can therefore help to initiate the creative process of analysis. Whether bracketing can really be achieved is, however, questionable. Clegg (2003) argues that if there is a dearth of literature related to the phenomenon being studied then the initial literature review is likely to have little influence on the outcome.

Strauss and Corbin (1998) suggest it is not necessary to review all the literature prior to a grounded theory study but this raises a question about how much literature should be reviewed at the very beginning. Inevitably researchers have to make sure that they do not study an area which has been researched many times before in a similar way, so that their study adds something new. For this they need an overview of the literature. Ultimately researchers have to be pragmatic. Justification for the methodology and rationale for studying the chosen phenomenon requires some form of literature review. The decision to adopt grounded theory is based on the amount of knowledge known about the phenomenon.

The ongoing use of the literature has a number of purposes (Glaser 1978, 1992). It can enhance theoretical sensitivity to the data, that is the ability to determine what is or is not important to the emerging theory (Glaser 1978; Strauss and Corbin 1998). The literature is also incorporated into the study confirming or refuting ideas emerging from the data. Questions or ideas from the literature are also sought in the data to extend the theory. Literature accessed at this stage tends to be different from that used in the initial review because the focus is now on

developing the emerging theory. Glaser as well as Strauss and Corbin acknowledge that reading literature related to other disciplines is necessary as this can enhance conceptualization of the data as well as theoretical sensitivity.

Whether to undertake an initial review, how much literature to access at this time and when to commence the subsequent review will be a matter for professional judgement. Cutcliffe (2000) argues that the decision about when to access the literature may depend on which version of grounded theory the researcher has chosen.

Sampling

Like many other types of qualitative studies sample size in grounded theory research can vary but tends to be small. For example, Clegg (2003) chose four patients and three relatives to participate in her study, while Glacken *et al.* (2003) included twenty-eight individuals. Sample size may, however, be larger. Fifty-five first-time mothers took part in a study by Rogan *et al.* (1997) that explored the experiences of becoming a mother.

Purposive or purposeful sampling is used in the beginning. This means participants have knowledge of the phenomenon being studied. Initially *open sampling* takes place. Selection means acquiring participants who will provide data relevant to the study. As a theory begins to emerge, *theoretical sampling* is included. This means that analysis of the data informs sample selection (Glaser and Strauss 1967) which is based on further development of the emerging theory. This selection may be based on participants or emerging concepts.

Purposive sampling may also be one of convenience such as a cohort of students rather than a number of students from several cohorts. Alternatively participants may select themselves. These types of sample are atypical of a population and therefore might be called biased (Smith and Biley 1997), but the purpose is to provide insight into a phenomenon that only those with specific knowledge have. The inclusion of negative (deviant) cases or the views of participants that differ from others provide a balanced perspective. When researchers are dependent on others, such as health-care workers, for selecting their sample, lack of sufficient variation in the data may be a limitation of a study (Landmark and Wahl 2002).

An additional type of purposeful sampling is snowballing or chain referral sampling whereby one participant informs the researcher of someone else who might be willing to participate in the study. This may be necessary if the phenomenon under study is uncommon such as, for instance, the experience of caring for a baby with phenylketonuria.

Data collection

Qualitative data in GT are derived from the same sources as those of other qualitative approaches. This involves collecting data by means of interviews and/or observation of the phenomenon that is being researched. In addition, health-care practitioners may collect data in the form of records such as medical or maternity notes, off duty rotas and minutes of meetings. Strauss and Corbin (1998) suggest

diaries; autobiographies, letters and historical accounts, but many other sources can be used.

Interviews may be unstructured or semi-structured. Unstructured interviews generally consist of one or two open-ended questions. Participants are then free to say as much or as little as they wish and the researcher does not impose their own ideas. Questions that prompt or encourage participants to elaborate can be posed (Patton 2002). It is at this stage of the research process that having knowledge and experience of the topic can facilitate data collection (Strauss 1987). Indeed, Pidgeon (1996) believes that without some prior knowledge sense cannot be made of any research data. Smith and Biley (1997) acknowledge the tension that exists between putting aside any preconceived ideas and using knowledge and experience to facilitate the development of theory. The use of a reflective diary can raise researchers' awareness of their preconceived ideas and the influence of these on data collection and analysis. This awareness is also important if the perspective of another is to be understood (Hutchinson and Wilson 2001). Obtaining the insider perspective and interpret it requires empathy or the ability to place oneself in the shoes of another. This process of looking back on the self (Mead 1934) continues throughout the research. The researcher is an integral part of the research process. The desirability of being able to suspend knowledge is likely to be difficult or even impossible to achieve.

The study may begin with semi-structured interviews (indeed Strauss himself prefers these). There are no guidelines to stipulate the number of questions this involves. It is, however, important to remember that the more questions that are asked the more structured the interview becomes. Too many questions, and the researcher determines the agenda. The process of discovery is then inhibited, and what is important to participants may never be revealed. Morse and Bottorff (1992) in a study that explored the emotional experience of breast expression following the birth of a baby posed three questions. Landmark and Wahl (2002) sought to explore the experiences of women who had recently been diagnosed with breast cancer. They identified six key issues which included *reactions to the diagnosis, every day living patterns* and *thoughts about the future*. Although these were stated to be guidelines their purpose was to provide structure to the interview.

In reality most grounded theory interviews become semi-structured because, as the key issues emerge, there is a need to focus on these to facilitate development of the theory. Issues that lack relevance to the emerging theory are not pursued. An interview guide can be used to record questions that highlight these key issues (Holloway 1997). If these issues do not arise spontaneously the researcher can then address them; such questions will be important in developing the emerging theory. An alternative to the individual interview is the focus group, an approach adopted for instance, by Rogan *et al.* (1997). Interactions of a small group of individuals generate ideas and facilitate exploration of the phenomenon (Holloway 1997). It might, however, be more difficult to carry out theoretical sampling with focus groups.

Holloway (1997: 94) suggests that the interview is a 'conversation with a purpose', a phrase used by the Webbs in the nineteenth century. Conversations are verbal interactions between two or more individuals who ideally all have an equal

opportunity to express their viewpoint. If, however, researchers say too much, there is a real possibility that they will introduce their own ideas and thus influence the incoming data. Interviews are often referred to as 'in-depth', implying a considerable amount of detailed data are collected. Although they can vary in length for example 50–180 minutes (Glacken *et al.* 2003), this is a short timespan in the trajectory of an experience such as permanent fatigue. To regard such interviews as in-depth may therefore be inappropriate. The sensitive nature of a phenomenon studied may result in distress to participants. For this reason it is important to ensure participants have some form of support following the interview. Landmark and Wahl (2002) offered their participants the opportunity to talk with a medical consultant or nurse according to their needs.

Observation provides an opportunity to witness the interactions that take place between individuals in a social setting. The researcher provides the interpretation of events. Combining observation with interviewing clarifies the meaning of those events from the perspective of the participants. This can be useful in discovering whether what is said corresponds to what is done in practice and can provide opportunities to clarify any discrepancies. Researchers need to be aware of the ethical issues that can arise when observing others. These include the Hawthorne effect, when the presence of the researcher alters the behaviour that is being observed, and what action to take if practice that is witnessed causes concern.

Fieldnotes

Fieldnotes are the written account of the researcher's thoughts and observations and therefore enhance data collection. When interviewing they might include aspects of the context of the study, facial expressions and gestures that cannot be recorded on a tape. Descriptions of participants and the researcher's perceptions of what is happening in the setting will also be important. For this reason Holloway (1997) believes they are a combination of the researcher's personal reflections as well as detailed descriptions that enhance remembrance of events in the setting. When observation is the mode of data collection, fieldnotes are vital as they provide the only means of data collection (Morse and Field 1996) unless videotapes are used.

Data analysis

The process of analysis can begin as the data are being collected and fairly soon after the interview or observations have been undertaken and transcribed. The transcription includes coughs, pauses, laughs and so on, while in observations actions and interactions are described in the fieldnotes. All of these have meanings and may influence interpretation of the data.

A key feature of grounded theory is the constant comparative method of analysis (Glaser and Strauss 1967) in which data collection and analysis is a simultaneous and interactive process. The process also involves constant comparison between words, sentences, paragraphs, codes and categories. The purpose of this is to identify similarities and differences in the data. Each interview and

observation is also compared. This process continues until the final write up of the report has been completed. It is a detailed and thorough process involving repeated reading or listening to the tape recordings. The interaction with the data enables the researcher to understand the phenomenon that is being researched.

Coding

Open coding (Strauss and Corbin 1998) or *Level 1 coding* (Hutchinson and Wilson 2001) is initially employed to name and give meaning to the data. This may involve use of 'in vivo' codes that are the participants own words. Codes with similar meaning are linked together and renamed as categories to provide more abstract meaning. In addition, each property or characteristic of the category can be located along a continuum (Strauss and Corbin 1998). For example, in a study that analyzed women's initial experiences of motherhood, Barclay *et al.* (1997) developed a category that they entitled 'unready'. At one end of the continuum women were totally unready for motherhood while at the other extreme were those who were completely ready. This process is known as dimensionalization.

Glaser (1992) and Strauss and Corbin (1998) adopt a different, though similar, approach to coding. While the naming of categories and identification of properties and dimensions appears to be the same whichever method is used, the approach to initial coding adopted by Strauss and Corbin is a very detailed one.

During open coding and the subsequent analytic process, questions are generated and answers sought in the data. Future participants can be asked these questions if they are likely to facilitate the development of a theory. These questions can also generate working hypotheses or propositions that can be validated in subsequent data collection. Unlike other qualitative approaches, grounded theory is therefore an inductive and deductive process. According to Glaser (1992: 51) neutral questions should be asked such as 'what is actually happening in the data?' This permits the data to tell their own story. In contrast, Strauss (Strauss and Corbin 1998) asks 'what if?' (Stern 1994), and considers all possibilities whether they are in the data or not. This involves asking questions such as *who?*, *what?*, *where?*, *how?* and *when?* According to Glaser (1992) his approach permits the theory to emerge while Strauss forces the data. Strauss and Corbin (1998) dispute this, saying that the data are allowed to speak for themselves.

Axial or *Level 2 coding* (Hutchinson and Wilson 2001) follows open coding. This process is used to make connections between categories and sub-categories and allows a conceptual framework to emerge. Using a paradigm model, relationships are established by determining causes, contexts, contingencies, consequences, covariances and conditions (Glaser 1978). At this stage some open codes may be discarded because there are no connections. The relationship between concepts is verified by constant comparison and enables the theory to be developed. The link between conditions, consequences and interaction can be expressed in the form of a conditional matrix (Strauss and Corbin 1998). Lugina *et al.* (2002) provide a good example of this, while Rogan *et al.* (1997) acknowledge that their theory was not fully developed. The data are therefore put back together in new ways. According to Glaser (1992) the paradigm model forces

the data into a predetermined structure hence his use of the term 'full conceptual description' for the work of Strauss.

Selective coding for Strauss and Corbin (1998) is the process that links all categories and sub-categories to the core category thus facilitating the emergence of the 'storyline' or theory. Perhaps unsurprisingly Glaser (1992) disagrees and clearly states that selective coding is about confining coding to those categories that relate to the core category. Keddy *et al.* (1996) in a discussion of how grounded theory can be used for feminist research acknowledge that more than one story might emerge from the data. A decision therefore has to be made about choosing which story to develop.

The core category is central to and links the data; it accounts for the variations in the data (Strauss and Corbin 1998). It therefore provides a theory to explain the social processes surrounding the phenomenon. Integrating ideas from the literature and undertaking further sampling can expand this theory (Stern 1980). Subsequent interviews can verify this theory and enhance its development. Concepts and codes that lack relevance to the developing theory are discarded, but negative cases are retained. Rogan *et al.* (1997) identified six categories: 'realizing', 'unready', 'loss', 'aleness', 'drained' and 'working it out'. Linking these together was the core category 'becoming a mother'. Their theory explains how women move through a trajectory of recognizing life changes, something that they were not ready for, to making the adjustment to motherhood. The ability to give meaning to the data, in other words to recognize what is relevant and important, and what lacks relevance for the emerging theory requires theoretical sensitivity (Glaser and Strauss 1967; Glaser 1978). It is this that also helps to determine theoretical sampling. Pidgeon (1996) believes that novices may be unable to theorize beyond the context in which their own study took place, and grounded theory therefore may become little more than content analysis.

It has been acknowledged that the Straussian version of grounded theory is very structured, and concerns have been expressed that some researchers may follow it as a prescription (Pidgeon 1996). This implies 'linear thinking' (Keddy *et al.* 1996: 450), which is contrary to the intention of constant comparison. In contrast, the Glaserian approach could be perceived as being rather vague.

When each category is conceptually dense, variations in the category have been identified and explained, and no further data pertinent to the categories emerge during data collection, saturation is said to occur (Strauss and Corbin 1998). At this point in the study all participants are expressing the same ideas relevant to the developing theory, and nothing new is emerging from observations in the field. No further data collection is necessary, and the final sample size is known. Some codes and categories will be saturated before others, hence some data collection appears to become irrelevant but confirms what has already been said. It is interesting to note that the issue of saturation was originally discussed by Glaser and Strauss in *The Discovery of Grounded Theory* (1967) and is now included in *The Basics of Qualitative Research* (Strauss and Corbin 1998) although it was not mentioned in their 1990 edition. Glacken *et al.* (2003) maintain that they did achieve saturation while Clegg (2003) admits her small sample size may not have permitted this. There is then the potential for the theory to be incomplete

(Hutchinson and Wilson 2001). It is, however, difficult to state categorically that saturation has been achieved.

Memos and diagrams

Memos are the written records of abstract thinking about the data. They are therefore a record of the data analysis (Strauss 1987) which can include questions that are generated and directions for future data collection. Diagrams provide a visual form of the data that is clear and concise. The relationship between codes and categories is clearly visible. Areas for further data collection will be evident as will gaps in knowledge (Strauss and Corbin 1998). Strauss and Corbin place great emphasis on the use of memos. They provide a record of the research process and its progress, hence memos become increasingly complex as comparisons are made with the data; links between codes and categories establish the variations which all contribute to the development of the theory.

Evaluating a grounded theory study

Evaluation of a study is about making judgements of its worth. In this case it is about judging the theory, the research process used in developing it and deciding if the methodology was appropriate. Any criteria used to evaluate a grounded theory study should take into consideration whether a Glaserian or Straussian approach was adopted (Smith and Biley 1997).

Trustworthiness and credibility of the data needs to be established to ensure rigour. Reasons for choosing the grounded theory approach and provision of an audit trail therefore need to be made explicit. A detailed description of the context in which the study took place is essential, yet Morse (2001b) acknowledges that many studies she receives for publication fail to elaborate on this important component.

The research question or aim needs to be sufficiently broad, and data collection and analysis should demonstrate how the important issues emerged and the study became more focused. Evidence of initial and subsequent sample selection should therefore be apparent. How concepts were derived from the data should be shown as well as how categories were formed and categories and sub-categories linked together. Examples should be provided. Also, examples of questions and working hypotheses should be explained, and whether these were proven or not. There also needs to be evidence of any discrepancies, and how these were accounted for.

The core category or storyline needs to be evident and demonstrate how it links all the data. In the absence of a core category (Hutchinson and Wilson 2001) the study may be merely descriptive. A good theory is 'conceptually dense' (Strauss and Corbin 1998) and comprehensive if it accounts for all variations in behaviour. Peer review of the analytic process can enhance trustworthiness.

Theory is constructed from the data and should represent the social reality as perceived by participants. In other words it 'fits' (Glaser and Strauss 1967). These will not only be recognizable to the participants when they review the findings but

also to others who are familiar with the social setting (Glaser and Strauss 1967; Strauss and Corbin 1998). Quotes from the data will demonstrate how the theory was constructed. Understanding of the theory is also important if it is to be effectively used (Glaser and Strauss 1967). Glaser and Strauss suggest that a grounded theory should have ‘relevance’ or ‘grab’ and ‘work’. It explains what is actually happening in the setting and can predict what will happen under certain conditions. Lugina *et al.* (2002) believe they achieve these criteria. They provide a framework that expresses midwives’ views about their role in postnatal care and what they can do to enhance the quality of care they give. The theory therefore provides guidelines for action. These criteria imply the theory is useful, and this is very important in health research.

Findings cannot be generalized to a total population but may have meaning for others in a similar social setting (Strauss and Corbin 1998). Likewise a grounded theory study cannot be replicated, but if another researcher follows the audit trail, the theoretical explanation for the phenomenon should be similar (Strauss and Corbin 1998). Glaser (1992) questions why any one would want to do this!

Application of grounded theory

Grounded theory is now a very popular approach to doing qualitative research in health care. Schreiber and Stern (2001) state that this is true for nursing and the same could be said for midwifery. Despite this, its impact on practice and education has been minimal (Hall and May 2001).

The environment in which health care is provided is dynamic. Practitioners’ perspectives of giving care are important and so is the impact of policies on the provision of care. Using grounded theory to make these explicit can provide others with knowledge to change or enhance their own practice for the benefit of clients.

The delivery of health care involves interaction between practitioners, clients, managers, educationalists, and members of the multi-professional team including students. Emphasis is now placed on inter-professional education to facilitate understanding of each others’ roles, remove inter-professional rivalries and thus enhance the quality of care clients and patients receive (DOH 2001a, 2001b). Implementation of this new style of education is being piloted with the support of funding from the Department of Health. Evaluation of these and other programmes from student and teacher perspectives may lead to modifications in structure and content as well as enhance student and teacher performance. There is also the potential to gain insights into how students from a number of professions relate to each other and work together. What follows is an example of an educational study that uses grounded theory and aims to illustrate some of the features included in this chapter.

An example of grounded theory research

Learning and teaching in the context of clinical practice: the midwife as role model

Introduction and justification for methodology

The aim of this study was to develop a theory to provide insight and understanding into how student midwives learned the role of midwife from their midwifery role models. Emphasis was therefore placed on eliciting the influence of midwifery role models on students and the impact of this on their practice. An initial literature review was sufficient to identify a lack of literature related to role modelling in midwifery although aspects of the phenomenon had been explored in nursing and medicine (Dotan *et al.* 1986; Lublin 1992; Davies 1993; Nelms *et al.* 1993; Wiseman 1994). These studies were, however, undertaken in Australia, America and Israel where culture and practice differs from that in England. Emphasis in these studies tends to be placed on positive role models with limited attention paid to poor role models and their impact on those who observe and interact with them (exceptions are the study by Davies and that by Nelms *et al.*). Gaps in knowledge and how the study might contribute to what is already known about the phenomenon were therefore made transparent. According to Stern (1980) grounded theory is a suitable means for exploring phenomena that have been investigated by others but not by one's own discipline.

Well-known studies that have explored the concept of socialization such as those by Becker *et al.* (1961), Dingwall (1977), Fretwell (1982) and Melia (1987) revealed that learning a role is a process of interaction that participants actively engage in. Roles are negotiated and renegotiated and are dynamic changing over time. It therefore seemed logical to suppose that students would interpret the actions of their role models and allow these to influence their own behaviour. Students are also likely to have shared meanings as they practise in the same social settings. These notions of interaction support the underlying belief on which grounded theory is based. The methodology was therefore appropriate for making this process of interaction explicit.

Background to the study

Prior to 1993 the medical model of care was the accepted form of practice. Interventions associated with this model of care were devised mainly by doctors and expressed in written policies (Garcia and Garforth 1989). Following these policies lead to adoption of the role of 'handmaiden' to the doctor (Robinson *et al.* 1983; Askham and Barbour 1996; Begley 1997), a role that some midwives continue to fulfil (Coggin 2002; Richens 2002). Historically the culture of midwifery and indeed the National Health Service (NHS) in Britain was associated with an expectation that practitioners would do as they were told (Hadikin and O'Driscoll 2000). Kirkham (1999) defines midwives as an oppressed group subordinated by doctors. She uses the writings of Freire (1993) on domination and control to explain how midwives came to accept the values and beliefs of the

medical profession and in doing so undermined their own profession and practice hence the perpetuation of this model of care.

When data collection began in December 1993 the midwifery culture was beginning to change. Project 2000 (UKCC 1986) emphasized the preparation of a new practitioner through education. There was now an expectation that midwives would be autonomous and reflective practitioners, critical thinkers and knowledgeable doers who could use evidence to inform their practice. The *Changing Childbirth Report* (DOH 1993) also advocated midwifery care that focused on the women, giving them choice of care, control in the care they received and continuity of carer. Students were therefore exposed to two versions of midwifery which raised issues about which role they learned and how they learnt it.

Using grounded theory

The Straussian approach to grounded theory was adopted with detailed, practical advice obtained from Strauss and Corbin (1990). Twenty students and seventeen midwives participated in the study. Students were located in one of two universities in the south of England. Those with no nursing experience were undertaking either a three- or four-year programme while students who were qualified nurses were participating in the seventy-eight-week shortened programme. The midwives practised in the hospital, a midwifery-led unit or in the community setting. The sample was one of convenience. This is contrary to the grounded theory approach, but certain concepts such as 'bullying' were followed up and sampled as they emerged and became important to the developing theory.

Data were collected over a period of three years through unstructured tape-recorded interviews. One open-ended question was posed to students: 'how do you learn the role of the midwife in the clinical setting?' Midwives were asked 'how do you think students learn the role of the midwife when they work with you in the clinical setting?' As important issues emerged, these were listed on an interview guide. If not spontaneously included in the conversation by participants in subsequent interviews questions were raised relating to these issues. Topics were excluded from the interview when it became apparent during the research that they lacked relevance to the emerging theory.

The data were analyzed by the constant comparative method. Open coding enabled the data to be conceptualized. Codes that reflected my own interpretation of the data were identified. These included 'sticking to the rules', 'keeping quiet', and 'being innovative'. 'In vivo' codes (Strauss and Corbin 1998) included 'bending the rules' and 'the way it's always been'. 'Sussing and sizing' was a code initially chosen to reflect how students sought information about the midwives with whom they worked. This corresponded to a category adopted by Davies (1988) in an ethnographic study that explored students' experiences of the first eighteen weeks of their eighteen-month midwifery programme. 'Sussing and sizing' is something all individuals do when encountering new situations. Morse (2001a) emphasizes the importance of labelling concepts with the same name as those in other studies when they share the same meaning. This can enhance the richness of the developing theory. It could also be argued that they confirm what is

in the literature and enhance trustworthiness of the data. To invent a new code has the potential to create confusion for readers. 'Sussing and sizing' was initially chosen to reflect how students sought information about the midwives with whom they worked. Ultimately this code was renamed 'seeking information' and reflected the broader perspective of gaining information not only from midwives but also peers. It was also a means of avoiding idiomatic expressions.

A higher level of abstraction was achieved by comparing codes and linking these together to form categories when similarities were found to exist. 'Cheating' and then 'being evasive' became a category that incorporated codes such as 'telling lies', 'withholding information' and 'practising behind closed doors'. These reflected the strategies that some midwives adopted to enable them to avoid criticism while practising midwifery based on a philosophy which did not correspond to that of the other midwives with whom they worked. Categorizing the data in this way reduces the data and thus makes them more manageable (Coffey and Atkinson 1996).

Working propositions were generated in response to questions that emerged from the data. These were subsequently verified by means of 'theoretical sampling'. Junior students, for example, had a need to learn the rules of practice to enable them to fit in and meet the expectations of their role models. The proposition that students would no longer need to fit in with their role models once they had learned the rules of practice was not verified. Properties and dimensions were also identified. The philosophy on which midwives based their practice was a property of a category entitled 'role modelling'. This was dimensionalized by placing a philosophy of childbirth 'only normal in retrospect' and hence requiring routine interventions at one end of a continuum and childbirth as a normal physiological process at the opposing end.

Axial coding took place when categories and sub-categories were linked together by using the paradigm model. This was established by determining their relationship to each other, using the 'six cs' (Glaser 1978): *causes, context, contingencies, consequences, covariances and conditions*. A sub-category of role modelling for example was labelled 'fitting in'. Making such connections was not always easy. For example, 'keeping quiet' was a passive reaction and consequence of being criticized. It was also a strategy students adopted for fitting in with prescriptive midwives. Similarly 'keeping quiet' was an expectation of prescriptive midwives and a characteristic or condition of submission to authority to those above them in the midwifery hierarchy. 'Cheating' was a strategy for 'fitting in' but it was also a way of practising in the hospital environment.

The process of 'selective coding' identified the core category entitled 'interpreting and using the rules'. It was this category that linked all the data together and helped to provide an explanation of how students learned the role of midwife from their role models. In retrospect this sequential coding was too prescriptive. Relationships between codes were often identified, but these sometimes changed as the core category emerged. It was only at this point in the analytic process that clarity was achieved and axial coding completed. In addition questions posed to participants facilitated the development of the core category rather than establishing the relationship between categories and sub-categories as Strauss and

Corbin (1990, 1998) suggest. Examples of questions, properties and dimensions provided by Strauss and Corbin (1990) were beneficial in offering an initial understanding of the grounded theory process. These were, however, too obvious and simplistic. Attempts to use these questions were ultimately abandoned as it meant forcing the data and inhibiting the process of discovery.

The core category

Analysis of data revealed that central to the data was the issue of how midwives interpreted and used rules to inform their practice. The way in which midwives practised, the care they gave to women, their approach to learning and teaching, the way in which students learned, and the role they learned, was determined by how their role models interpreted and used the rules. This core category was developed from ‘in vivo’ codes (Strauss and Corbin 1998) such as ‘bending the rules’ and ‘the way it’s always been’. The former related to how midwives adapted what they perceived to be rules when giving care, while the latter was an indication that some midwives continued to adhere to rules even when they were outdated. Hence some midwives’ practice was based on traditional knowledge. In addition some open codes were formulated from my own interpretation, for example, ‘sticking to the rules’. Relationships between codes were identified to form the category while properties such as following written rules, following unwritten rules, bending and breaking the rules became sub-categories.

A conditional matrix

A conditional matrix shown in Figure 9.1 illustrates how the conditions under which interactions take place when students’ role models use the rules of practice influence the consequences of their actions. The way in which the rules were used defined the type of midwife, the way in which they practised and the impact of this on maternity care.

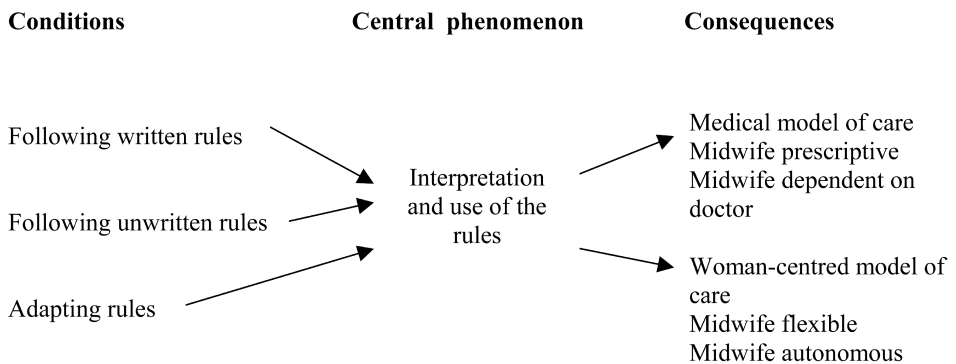


Figure 9.1 Conditional matrix

All midwives are unique in the way they practise. What emerged from the data were two 'ideal types' that could be placed at either end of a continuum. Placement on the continuum is based on the degree of autonomy that midwives exert. The literature tends to suggest that midwives have lacked autonomy (Robinson *et al.* 1983; Askham and Barbour 1996; Begley 2001). However, even if midwives rigidly follow rules, an initial decision has to be made about which rule to follow. All midwives are therefore autonomous, but the midwives whom I labelled 'prescriptive' restricted their own practice and in doing so limited the degree of autonomy they exerted. Midwives whom I categorized as 'flexible' adjusted their practice to meet the needs of clients.

It is important to acknowledge that there are more than two types of midwife. For example, McCrea *et al.* (1998) in a qualitative study that explored midwives' approaches to the relief of pain in labour also placed midwives on a continuum. These researchers placed midwives whom they called 'cold professionals' at one end of the continuum and 'disorganized carers' at the opposite end. Midway between each end were midwives classified as 'warm professionals'. Likewise, Emmons (1993) labelled some midwives crusaders, survivors and nurse-midwives. While differences exist, all of these midwives share some similarities with prescriptive and flexible midwives.

Emerging theoretical ideas

What emerged from the data were eight theoretical ideas rather than a single theory (Bluff 2001: 218–219). The core category integrated the data and provided the basis on which these theoretical ideas were formulated.

1. When midwives rigidly follow written and unwritten rules they prescribe midwifery care which corresponds to the medical model. In doing so they act as obstetric nurses or 'handmaidens' to the doctor.
2. When everything is interpreted as rules to be followed, prescriptive midwives appear to be uncaring and detached from the experience of childbirth. The individual needs of women are not met and the relationship between midwife and client is superficial.
3. Midwives who rigidly follow the rules inhibit the growth and development of students providing them with few opportunities to achieve beyond the level of their role model.
4. Midwives are flexible when they interpret the rules for the benefit of women and provide a woman-centred model of care. These midwives therefore act as autonomous practitioners.
5. When rules are interpreted and adapted to meet the needs of women, flexible midwives demonstrate involvement in women's experiences and are empathic, supportive and caring.
6. Midwives who use their professional judgement to interpret the rules provide an environment in which senior students can become autonomous practitioners.

7. When midwives demonstrate the role of autonomous practitioner, practise a woman-centred model of care and meet the learning needs of students, they are appropriate role models and teachers.
8. When practitioners who hold opposing attitudes, values and beliefs practice together there is conflict in the clinical setting. Conflict can be avoided when flexible midwives adopt strategies that involve becoming prescriptive or practising by subterfuge.

The conditional matrix illustrates the first two of these theoretical ideas. When students work in the clinical setting they observe the way in which their role models practise. These role models also act as their teachers. By making explicit the process of how students learn the role of midwife from their midwifery role models the influence of these role models on students was uncovered. These ideas are now presented in a visual form to demonstrate the value of a diagram or theoretical framework for providing both researcher and readers with an overview and clarity of the relationship between the eight ideas and the other perspectives of students and midwives (Bluff 2001: 238). In this instance 80,000 words are condensed to a single page!

The conditional matrix and Figure 9.2 reveal the impact of how the rules are used on the way in which midwives practise and the maternity care they give to women. Figure 9.2 provides more detail and in addition reveals the conflict experienced by flexible midwives when they practise in the same setting as prescriptive midwives, and the impact these role models have on student learning and the role they adopt. It does not identify the nature of the conflict between midwives and the impact of this on morale. It is also does not make explicit students' expectations of adopting the prescriptive strategies or subterfuge to enable them to practise flexibly when they qualify hence the reality of maintaining a culture that promotes lying and subterfuge.

Since data collection was completed a number of years have passed and it is important to remember that the pace of change in the maternity services has been unremitting. Hence when applying findings to practice there is a need to take into account the results of any studies subsequent to this one.

Conclusion

Grounded theory has developed mainly as a qualitative approach in which data collection and analysis are a simultaneous process. It aims to illuminate the social processes of interaction. Interviews and observation are the preferred means of data collection. Data are coded and categorized using the constant comparative method of analysis. The emergence of a core category links the categories and sub-categories together to provide a storyline or conceptually dense theory that explains what is happening in the social setting; theory is therefore generated from the data. Theoretical sampling facilitates development of this theory and memos provide a record of the analytic process. The literature is incorporated into the data

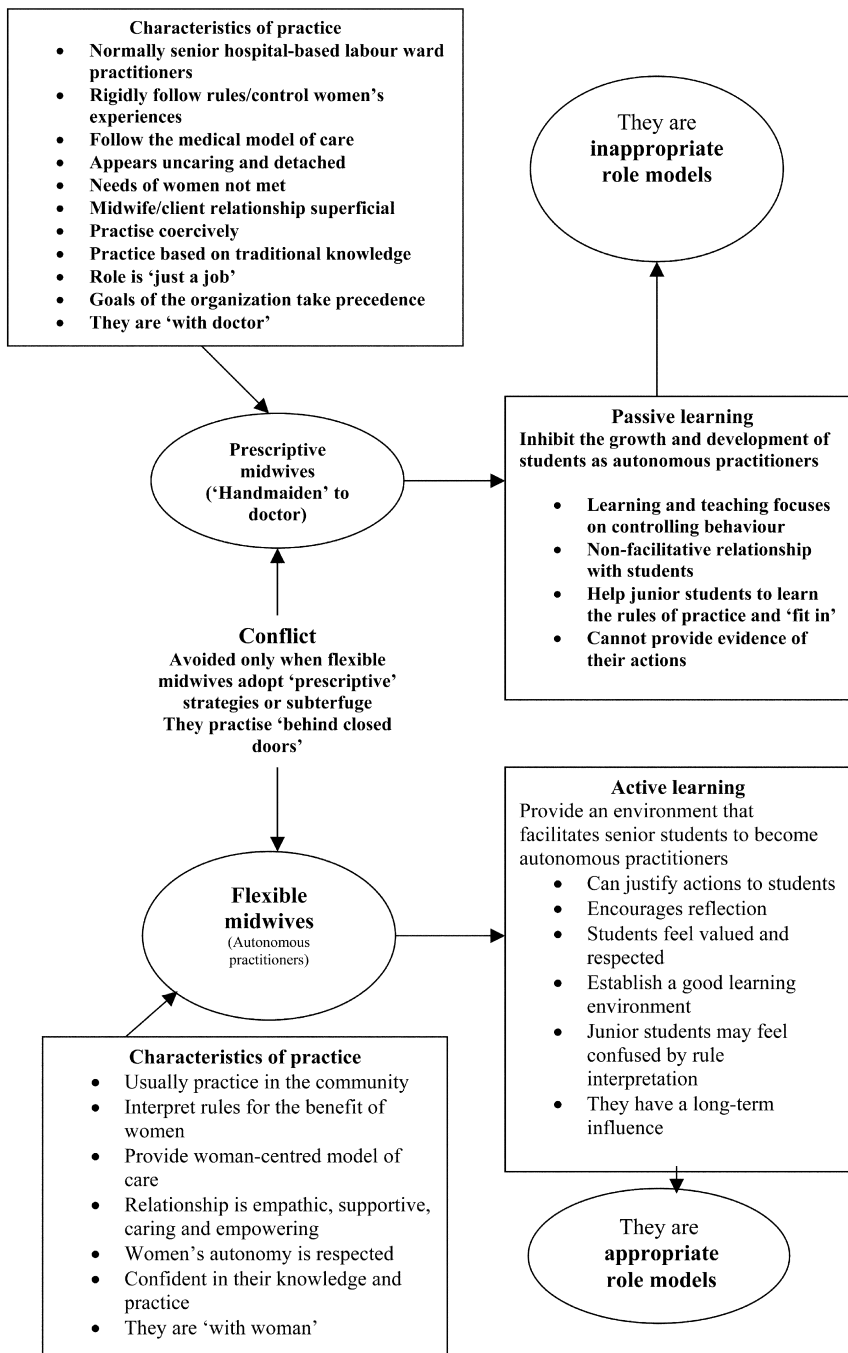


Figure 9.2

to confirm or refute the findings. An extended example of grounded theory has been used to illustrate many of its features.

There is debate about whether the method has been eroded or evolved. Glaser and Strauss view grounded theory from different perspectives. When undertaking a grounded theory study researchers need to make explicit the approach they have adopted. Appropriate criteria can then be used to evaluate the study.

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