Data collecting in grounded theory – some practical issues

In this paper, Kathleen Duffy, Colette Ferguson and Hazel Watson discuss the challenges of using grounded theory methodology in research, particularly when used for the first time. With reference to a study of the factors influencing mentors’ decisions when student nurses’ clinical performance is unsatisfactory, they highlight some of the practical issues relevant to the data collection phase of the research process.

Introduction
In July 2000, I (KD) commenced part-time PhD studies, using grounded theory methodology. Using grounded theory for the first time has presented certain challenges, some of which are pertinent to the methodology alone and some that have wider significance for anyone using interviews as a data collection method. The purpose of this paper is to highlight some of the practical issues that I, with the support of my supervisors (CF and HEW), have had to deal with during the data collection phase, in the hope that it may be of benefit to others.
Deciding on the data collection method

When formulating the proposal for my PhD, I had indicated that the initial data collection method would be one-to-one interviews with participants. When the time came for me to collect the data, I was presented with one of my first challenges: deciding on the type of interview that is appropriate for a grounded theory study.

As I had not used grounded theory before I spent a great deal of time reading about it in an attempt to understand how I should proceed at each stage of the research process. During a review of literature related to data collection I uncovered a paper by Wimpenny and Gass (2000), which questioned whether there is indeed a 'typical' interview in grounded theory. Interviewing takes many forms and many types abound in the literature (see Box 1), but which interview method was the most appropriate for my study? Time is always an issue that has to be considered when conducting research, and what I had not anticipated was the length of time and amount of intellectual endeavour entailed in resolving this dilemma.

Box 1. Types of interview described in the literature

- structured • in-depth
- semi-structured • partially structured
- unstructured • informal conversational
- open • open-ended
- focused • closed
- formal • fixed
- informal • standardised

Unstructured or semi-structured interviews?
Chenitz and Swanson (1986) and Bowers (1988) suggest that grounded theory researchers use both formal and informal interviews to collect data. Examining the formal interview, two types are noted: structured and unstructured, with unstructured interviews considered fitting for grounded theory data collection (Chenitz and Swanson 1986). Indeed, Bowers (1988) concludes that structured interview schedules are inappropriate for grounded theory studies.
Unstructured interviews
Unstructured interviews are, according to Burgess (1984), ‘conversations with purpose’, while Rubin and Rubin (1995) call them ‘guided conversations’. Rose (1994) points out that in unstructured interviews the researcher should not try to influence the scope or depth of a participant’s responses. Indeed, allowing the participant maximum control is seen as a particular advantage of unstructured interviewing. According to Fielding (1994), this is because the unstructured interview ‘allows respondents to use their own way of defining the world, assumes that no fixed sequence of questions is suitable to all respondents, and allows respondents to raise considerations the interviewer hadn’t thought of’. Gray (1994), in the meantime, contends that one of the significant features of an unstructured interview is that it views the individual holistically, a view supported by Wimpenny and Gass (2000), who indicate that unstructured interviews are the best means of securing the personal and private concerns of the respondents. Patton (1990) and Guba and Lincoln (1981) both describe unstructured interviewing as a less remote and arbitrary form of interviewing, allowing a respondent to tell their story. Listening to respondents recounting their stories is, according to Glaser and Strauss (1967), very important during the early stages of grounded theory research.

Grounded theory methodology is often used when little is known about a subject or problem area (Morse 1994). Flexibility within the interview situation would therefore be advantageous when exploring new ground. Indeed, Fielding (1994) points out that unstructured interviews are consistent with grounded theory methodology as they are valuable ‘methods of discovery’.

Semi-structured interviews
Unstructured and semi-structured interviews are described by Rubin and Rubin (1995) as coming from the same family but differing in approach. In semi-structured interviewing, the interviewer requires more focused information and asks specific questions to gain it. In essence, the researcher opens the discussion, listens and uses prompts to guide the respondent. The use of more focused interview questions is consistent with the grounded theory approach but they are generally used at a later stage in the data collection.
process. A central feature of grounded theory methodology is that analysis is concurrent with data collection, thus allowing emerging theory to inform subsequent data collection. As Wimpenny and Gass (2000) indicate, in grounded theory 'ongoing analysis will influence the questions that are asked, with the direction of the interview becoming driven by the emerging theory'. Using semi-structured interviews still allows some flexibility; for example they permit the interviewer to pursue issues of particular significance that relate to the research question (Rose 1994). This method also allows for exploration and clarification of comments made by the respondents, as well as letting the interviewer use prior knowledge during the interview process (Rose 1994). The use of semi-structured interviews is therefore also congruent with grounded theory methodology as it allows the researcher to ask key questions in the same way each time, but allows flexibility in the sequencing of questions and in the depth of exploration (Fielding 1994).

Both unstructured and semi-structured interviews as means of data collection appear congruent with the grounded theory approach. The type of interview used appears to be dependent on the stage of the research project. Given the advantages associated with unstructured interviews, both from the participants' perspective and the grounded theory approach itself, initial data collection in my study centred on unstructured one-to-one interviews with participants. As the study progresses I have found, consistent with the grounded theory approach, that analysis of the data collected from initial unstructured interviews has indeed given more direction to subsequent semi-structured interviews.

Practicalities of data collection
Gray (1994), Rose (1994) and Wimpenny and Gass (2000) point out that choosing an unstructured approach does not mean going into interviews completely unprepared. Indeed, they suggest it is wise to plan ahead. Areas to be considered include:

- preparing for interview
- explaining the focus of the interview
- developing an interview guide
- the art of questioning.
Preparing for interview

My research is looking at the factors that influence a mentor’s decision when dealing with a student whose clinical performance is unsatisfactory. In particular, the focus of my research is the issue of ‘failure to fail’ pre-registration students while on clinical placement (Lankshear 1990, Watson and Harris 1999). Given that it is a relatively unexplored area, the flexibility of unstructured interviews appeared pertinent in the initial stages of data collection.

When commencing data collection, Rose (1994) highlights that it is important to plan the practicalities well in advance so that no technical hitches affect the quality of the data obtained. Easton et al (2000) also advise that researchers check all equipment well in advance. I found it very useful to develop a checklist (see Box 2): this acts as a reminder of practical issues before the interview, on commencement of the interview, and at its conclusion.

Explaining the focus of the interview

Fielding (1994) suggests that care needs to be taken over the initial explanation of the focus of the interview. In my study, participants are provided with an explanation sheet to read, and as can be seen from the interview checklist, time is taken at the beginning of each interview to explain and answer any questions relating to the focus of the interview.

Developing an interview guide

Wimpenny and Gass (2000) point out that interviewers conducting unstructured interviews may, in practice, actually have a general interview guide. Fielding (1994) suggests that interviewers may wish to have a list of topics they want participants to talk about but that they are free to phrase the questions as they wish, ask them in any order that seems sensible and ‘even join in by discussing what they think of the topic’. Having accepted this advice, I have one initial question to open the interview and a general topic list for reference if required thereafter. Careful planning in relation to the initial question is seen as paramount when using the unstructured interview. Bowers (1988) provides some guidance on this matter, highlighting that the
Box 2. Interview checklist

Before the interview

Destination/date:
Meet:
Interview time: (Plan to arrive 15 minutes before interview starts to check room)

Remember:
- Folder with details
- Tape recorder – batteries inserted
- Microphone – battery inserted
- Spare batteries
- Tape and spare tapes
- Pen
- Watch
- Label tape (date, participant number)
- Label for door – ‘Do not disturb’ and BluG-tac
- Ensure phone diverted
- Preamble/explanation
- Copy of initial question for participant
- Interview guide
- Information sheets for participant
- Consent forms for participant
- Set tape counter to 000

Set up room for interview:
- Chairs at right angles
- Table to side if possible
- Tea or coffee and biscuit at beginning as ‘ice breaker’
- Alternatively, a glass of water.

On commencement of the interview

- Remind respondent about purpose of the interview
- Remind respondent how the selection procedure was carried out
- Remind respondent what is expected
- Remind respondent that they are free to withdraw at anytime.
- Insert microphone into MIC
- Switch on microphone
- Tape recorder – insert tape with side to start facing the cassette holder
- Press record (red light comes on)
- Check tape recorder working.
- Check for any background noise (windows closed, computer fans off)

At conclusion of the interview

Debriefing:
- Ask participants if they are willing, if required, to be interviewed again at a later stage of the research [Yes/No]
- Ask participants if they are willing to take part in confirmation/verification of the data [Yes/No]

Post-interview:
- Field notes
- Thoughts
grounded theory researcher generally begins the research process with a general question and next invites participants to explain or describe the area under scrutiny. An important point to note when developing my initial question was Glaser’s suggestion that the grounded theory researcher ‘never, never asks the question directly in interviews as this would preconceive the emergence of data’ (Glaser 1992). Therefore, in keeping with Glaser’s advice, I do not ask directly about ‘failure to fail’ but begin with the initial research question, ‘what has been your experience regarding students whose clinical performance has been weak?’ Consequently, the way the interview then develops depends on each individual participant’s story and I only use the interview topic guide if appropriate.

The art of questioning
Carrying out interviews can be both rewarding and daunting. It is easy to think that as a nurse, or indeed as a lecturer, I already had the skills necessary to conduct an interview successfully. I believe it is easy to become complacent, and for this reason I found it useful to practice my interview skills prior to conducting the first interviews. I felt this was of particular importance given that the accusation of ‘interviewer bias’ has been levied at the unstructured interview (Fielding 1994). In my workplace, I am fortunate enough to have access to an interactive suite in which two rooms are divided by a one-way mirror. The suite is equipped with video recording equipment. I conducted and video recorded mock interviews with colleagues and then asked for constructive criticism regarding my interview skills from experienced researchers and colleagues. Advice centred on reducing my ‘very positive’ non-verbal communication, a skill that is useful to elicit responses when teaching, but which in a research interview could be problematic. This constructive criticism highlighted the effect that I, as a researcher, could have on participants’ responses. Awareness of this has, I hope, enabled me to reduce ‘interviewer bias’.

Diversity in data collection
It is important to bear in mind when embarking on a grounded theory study that emerging analysis will influence subsequent data collection. This unpre-
dictability makes it difficult to be specific when writing a proposal; a point I perhaps did not consider sufficiently when writing my proposal. A diversity of methods may be employed during data collection in grounded theory, including interviews, observational field notes, videos, journals, memos, manuals, letters, and other forms of written or pictorial materials (Strauss and Corbin 1998). Indeed, diversity in data collection methods is often required to ensure that the theory is in fact ‘grounded’ in the data. For example, it has recently become evident in my study that in order to saturate some emerging categories I also need to look at documentary evidence. This will have real implications for the data collection timescale, and was not something fully appreciated when I started. A change in data collection method has meant re-applying for ethical approval. This has necessitated updating my proposal, resubmitting to various ethics committees and then waiting from two to eight weeks for a decision. On a practical level as a part-time PhD student, this has thrown my proposed data collection timescale off schedule by several months, but in order to keep with the philosophical underpinning of the methodology, that is, to be guided by the emerging data, it is something I have had to accept.

Practical aspects of analysis
With grounded theory, the selection of subjects, data collection, and analysis are linked from the beginning of the research, proceeding in parallel and interacting continuously (Wainwright 1994). Strauss and Corbin (1998) point out that ‘data collection should be followed immediately by analysis’. Given this close relationship between data collection and analysis there are very definite practical implications that have to be considered. Strauss and Corbin (1998) highlight that novice grounded theorists can be over-enthusiastic about data collection and conduct a series of interviews without concurrent analysis, possibly resulting in a missed opportunity to sample on the basis of emerging concepts. In order to conduct concurrent analysis I leave a minimum of two and often three weeks between each interview. In addition, as I am doing my PhD part time and have no secretarial skills, I made the decision to employ a transcriber. Therefore, if I interview on a Wednesday and get the tape to the transcriber within 24 hours, it will be returned by the following
Wednesday. I then review the transcript, code the data, and analyse it before the next interview. As these activities take place in the evenings or on days off, being realistic is important. Therefore arranging interviews at two to three week intervals allows each interview to inform, develop, and focus the subsequent interviews. In order to immerse myself in the data when the tape is with the transcriber I make a copy of the original tape after each interview. As transcription of the original tape takes several days, keeping a copy tape enables me to listen repeatedly to the data, allowing me to become familiar and more sensitive to it. When the original tape is returned, the copy is erased. Using this technique should be made clear in any proposed submission to any ethics committee. I also found this practice of benefit when the transcriber had a problem with a damaged original tape. Data were saved because I had kept a copy of the original tape.

The need to find a secretary to transcribe the tapes reliably over a long period is an important practical issue to consider. Spending time talking to other researchers is invaluable, as experienced transcribers can be difficult to find. Word of mouth is probably the most effective method of locating a suitable transcriber.

**Transcription errors**

I have found that having a dependable transcriber is vital but does not prevent transcription errors. As Easton et al (2000) indicate, 'when someone else transcribes an interview, the researcher should never assume that it is transcribed correctly. He or she must listen to it check and recheck for accuracy prior to beginning analysis.' Following this advice, when transcripts are returned I take time to review the transcripts with the original tape to pick up any errors. I have found several types of errors that have occurred during the transcription process, and this section provides some practical examples of errors encountered. At times, the transcriber has had difficulty with educational and clinical terminology. This she has acknowledged by inserting xxx.

For example:

Transcribed

And I feel. I think if it's done in that way a xxx xxx arrangement that supports the mentor...
Should read
And I feel, I think if it’s done in that way a tripartite arrangement that supports the mentor...

On other occasions, local accents, colloquialisms and even the speed of speaker has been an issue. For example:

Transcribed
Well I’ve come across a few xxx sort of individuals who think that they’ll make the decision and that’s all that’s necessary.

Should read
Well I’ve come across a few cussed sort of individuals who think that they’ll make the decision and that’s all that’s necessary.

Problems with transcription that the transcriber has acknowledged with xxx are easily spotted; however, I have found it more time consuming when the transcriber has not been aware of an error and has misinterpreted or misheard a word or words. This is something that could easily be missed when reviewing the transcripts.

For example:

Transcribed
Now that I’m getting more experience I understand that you have to, if people are unsatisfactory and if people are not fit to work, and not sure to go to work, you know you have to fail them.

Should read
Now that I’m getting more experience I understand that you have to, if people are unsatisfactory and if people are not fit to work, and not suitable to work, you know you have to fail them.

There have also been problems with words sounding the same, for example ‘waiting’ and ‘weighting’. Transcriptions errors are unavoidable, particularly when someone else is transcribing. It usually takes on average three hours to review and, if necessary, correct mistakes made by the transcriber. However, when I considered it would take me from 20 to 25 hours to transcribe the tapes myself, reviewing the transcription was the more practical option.
Conclusion

In this article, I have presented some of the issues I have encountered so far during the data collection stage of a grounded theory study. Three main points are worth remembering when undertaking a grounded theory study. The first point is that data collection methods will alter as the study progresses; therefore, the issue of reapplying for ethical approval needs to be accounted for in the proposal. Secondly, think through the practicalities associated with concurrent data collection and analysis, and plan a realistic timescale. I found leaving three weeks between each interview was the most sensible approach. Thirdly, plan ahead for the practicalities associated with data collection. I found developing an interview checklist very helpful, while practicing my interview skills developed my confidence prior to commencing the study. I hope that highlighting in this article some of the practical difficulties I have encountered and the strategies I have used may be of benefit to some readers embarking on the research process.

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