Grounded theory in nursing research: Part 3 – Application

In the first article in this series, the methodological characteristics of grounded theory were examined (McCann and Clark 2003a). In the second article, a critique was presented of the methodology, with particular reference to the approaches of Glaser, and Strauss and Corbin (McCann and Clark 2003b). In this, the final article in the series, Terence McCann and Eileen Clark illustrate how to apply the methodology to nursing research using the example of McCann’s Australian study (McCann and Baker 2001) of how community mental health nurses promote wellness with clients who are experiencing an early episode of psychotic illness.

Introduction

Good research is premised on clearly written research questions and concise and unambiguous aims. The researcher must also be mindful that the questions should be flexible and open-ended so that they do not constrain the development of the theory (Smith and Biley 1997). In the exemplar study, the research question was: ‘What processes do nurses go through to help young adults who are experiencing an early and acute episode of psychotic...
illness, in particular schizophrenia, to recover from the episode and lead fulfilling lives?’ From this, the following study aims were identified:

■ To explicate and describe the processes that nurses go through to help young adults who are experiencing an early and acute episode of psychotic illness, in particular schizophrenia, to get better and enjoy purposeful lives.

■ To identify and describe the problems that nurses face when contemplating how to assist clients to get better and maintain meaningful lives.

■ To identify and explain the main influences that moderate the way nurses help clients to get better and lead purposeful lives.

Choosing the method

Once the research question and aims of the study were identified, it was important to consider the methodological approach and the methods of data collection. Two points were apparent when examining the aims of the study. First, it was implicit in the way the aims were written that an inductive rather than a deductive methodology was most appropriate. Second, the emphasis on assessing the processes that nurses used and the implicit need for a framework pointed to grounded theory as being the most appropriate methodology. These were important considerations, as not only was the methodology able to meet the study aims, it also informed the data collection and the analysis.

Selecting the approach to grounded theory

Annells (1997) outlines and discusses a range of options for using grounded theory methodology. Researchers using grounded theory need to consider which version of grounded theory – classical or Strauss and Corbin – they are going to use to inform their data collection and analysis. In the study, four factors influenced the decision to use Strauss and Corbin’s (1990, 1998) version of grounded theory. First, Strauss and Corbin emphasised the importance of identifying structural as well as contextual, symbolic and interaction influences. This dual approach highlighted the need to take account of both macro and micro influences on a phenomenon. The need to identify these factors was justified in the study when it was apparent that the strategies that nurses used to promote wellness were subject to various moderating
influences. Second, the Paradigm Model Strauss and Corbin (1990, 1998) was particularly helpful in collecting data, structuring the analysis and developing categories. The researcher was mindful, however, of the risk of ‘forcing the data’ (Glaser 1992).

Third, the approach reflected the contemporary shift towards social constructivist ontology and a poststructuralist paradigm. This ontological approach was considered more appropriate than the critical realist ontology and postpositivist paradigm in classic grounded theory. It is important to acknowledge that both the classical and the Strauss and Corbin approaches to grounded theory development are influenced to varying degrees by positivism and postpositivism (Charmaz 2000). This is evident in their sampling procedures, the development of concepts and categories, and the establishment of linkages among the categories (Benoliel 1996). Finally, the researcher preferred Strauss and Corbin’s more structured approach to data collection rather than Glaser’s more open and less structured approach.

**Selecting data collection methods**

The next consideration was to decide which data collection method(s) should be used as this can impinge on theoretical sampling (Strauss and Corbin 1990, 1998). It is noteworthy that grounded theory methodology concentrates on data analysis and pays little attention to data collection methods (Charmaz 2000). A wide range of data collection techniques can be used, such as interviews, observations, videos, questionnaires and organisational reports. Furthermore, both qualitative and quantitative approaches to data collection can be incorporated, even though most grounded theory studies use the former. Given that the study was inductive and sought to identify strategies that mental health nurses used to promote wellness, in-depth interviews and non-participant observations with clients, their relatives and nurses were considered to be the best approach to obtaining rich data. The use of interviews and observations provided diverse perspectives in seeking answers to the research question and, in so doing, helped strengthen the rigour of the study.

The decision to use interviews was influenced by the nature of the research question, the aims of the study and the chosen methodology. Although these
factors were an important consideration in deciding on the methods of study, at the heart of the activity was a desire to understand the experience of individuals and the perceptions they had about that experience (Seidman 1991). It is only when in-depth interviews are used that these psychosocial processes – the beginning, end, antecedents and consequences – can be identified (Morse 2001). The interviews also gave the researcher the opportunity to ask a range of in-depth questions, allowing the informants to describe their experiences, in their own narrative (Patton 1990, Porter 1996), about what guided nurses’ practice in the promotion of wellness. An aide-memoire was used to guide the interview questions (Box 1). This is a broad guide to topics that might be covered in the interview, and is open-ended and flexible (Burgess 1984). In developing aide-memoires, care was taken to avoid imposing too much structure on the interview, otherwise the quality of the data would be affected (Schreiber 2001).

**Box 1: Aide-memoire to the main issues to be covered with nurses**

- Can you tell me what it is like to care for a client who has had an acute episode of psychotic illness, such as schizophrenia?
- What do you do to help clients who have had an acute psychotic illness to be mentally well and prevent relapse into their psychotic illness?
- What do others do to help clients who have had an acute psychotic illness to be mentally well and prevent relapse into their psychotic illness?
- What can clients do to help themselves to be mentally well and prevent relapse into his/her psychotic illness?
- Is there anything else that you think would help clients to be mentally well and prevent relapse into their psychotic illness?

Non-participant observations were carried out to generate theoretical accuracy, which was grounded in the social reality of participants’ every day lives (Jorgensen 1989), and to help verify interview data. The decision to use observations was also premised on there being little prior information available about the phenomenon of wellness in this particular context, and the phenomenon was difficult to comprehend from the outside. Observations enabled the researcher to gain an ‘insider’s’ view of the field of study (Porter...
1996), to verify dialogue from the interviews and to observe if there was a dichotomy between what the informants said (in the interviews) and what actually took place in practice. Observations also enabled identification of questions for subsequent discussion in the interviews.

This mixed method approach to data collection, sometimes known as triangulation, was chosen because it was felt that it would produce richer data than a single approach. The decision was also influenced by conflicting literature about the rigour of using a single approach (Benoliel 1996, Charmaz 2000, Glaser 1992, Morse 2001). Triangulation of method was achieved by using two types of data collection: interviews and observations. Three different groups of participants (clients, their relatives, and nurses) provided triangulation of sources. Triangulation of sites occurred when data were obtained from community mental health centres located in three distinct geographical areas (an industrial city with an urban population; a nearby coastal town with a mixed coastal and urban population; and an inland town, situated approximately 40 kilometres from the other two centres, with a predominantly rural population).

**Theoretical sensitivity**

Theoretical sensitivity (Glaser 1978) was gained by a preliminary review of the literature (Carpenter 1999), which provided sensitising cues about the phenomenon of wellness in psychotic illness. In reviewing the literature, the researcher was mindful about the risk of tainting his view of the field and hindering the development of categories (Schreiber 2001). Professional experience as a mental health nurse, informal dialogue with nurses who cared for these clients and voluntary community organisations for the mentally ill provided additional sensitising cues.

**Theoretical sampling**

At the beginning of the study, purposive sampling, or sampling using certain prearranged criteria (Patton 1990), was used. For example, inclusion criteria for nurses were:

- a registered nurse
- employed as a mental health nurse with experience of caring for and treat-
ing young adults who are experiencing an early episode of psychotic illness, in particular, schizophrenia
• currently practising within a community setting or with recent community experience.

In addition, an approximately equal gender distribution (which reflected the gender distribution within the area health service) was sought in the sample. Once the early data were collected and analysed, further sampling was based on the categories and the developing theory (Glaser 1978). For instance, at one point in the cyclical process of data collection and analysis the issue of support for nurses prescribing medications emerged. Up to that point, all the nurses were in favour of prescribing rights. The temptation was for the researcher to claim that the data was saturated with this particular issue. However, the researcher persevered, using the flip-flop technique, which means turning the concept inside out in order to view it from a different perspective (Strauss and Corbin 1990, 1998, Schreiber 2001), and eventually a stream of nurse participants were interviewed who voiced their disapproval of nurses having authority to prescribe. This resulted in two competing categories about medication prescribing being presented in the results of the study (McCann and Baker 2001).

Data preparation
Interviews were tape-recorded and field notes were dictated onto a tape recorder at the earliest opportunity. Tape-recorded and handwritten field notes and memos were transcribed onto a word processor following each episode of fieldwork. Each participant was identified by a pseudonym. When transcriptions were returned, it was important that while reading them for the first time, the researcher also listened to the tape recordings. This process helped identify any errors in transcription. In some of the later interviews, only relevant material was completely transcribed, as directed by Burgess (1984). Transcriptions were read and re-read before coding commenced, in order to become thoroughly familiar with the data.

Data analysis
At the beginning of the study, consideration was given to whether the tran-
scribed data would be analysed by hand or by computer, using qualitative data analysis software, such as ATLAS.ti, NUD*IST, N-VIVO, or Ethnograph (see Weitzman (2000) for an informative analysis of this type of software). The researcher, in consultation with an advisor, decided to code by hand as this would enable greater visualisation of the data than through the use of qualitative software. Open coding was done, initially, on a printed copy, using highlighter pens. Conceptual labels which corresponded with the highlighted text were inserted, in pencil, in the adjacent wide margin, as advocated by Crabtree and Miller (1992). The researcher found this approach preferable to coding directly on to computer, because it provided a broader physical picture of the data than was possible with computer coding.

**Coding and categorising data**

The coding process began with open coding, which entailed fragmenting or breaking down the data. The intent of coding was to conceptualise the data by analysing it and identifying patterns or events in the data. The first step in conceptualising was that patterns in the data were coded or given conceptual labels (Table 1). The coded data were then inserted into a coding template (Table 2). The second step in conceptualising was to elevate concepts to provisional categories (Table 3).

The third step in conceptualising was to identify a core or basic social psychological problem that was experienced by the nurse participants, but was not always clearly articulated (Hutchinson 1993). The nurses’ unarticulated problem was conceptualised as Uncertainty of Direction, which reflected their uncertainty when contemplating the most appropriate way to incorporate the

<table>
<thead>
<tr>
<th>Data</th>
<th>Conceptual label</th>
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<tbody>
<tr>
<td>… people with mental illness … using marijuana, speed and alcohol. So, I think, what is important is to not be judgemental (Nurse 1.06:27)</td>
<td>Being non-judgemental</td>
</tr>
</tbody>
</table>
### Table 2: Open coding template for a sample of the category Mutual Relating

<table>
<thead>
<tr>
<th>Open coding (highlighted text)</th>
<th>Conceptual label</th>
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<tbody>
<tr>
<td>Part of engaging is establishing trust\nEngage the person… so they can trust you feel safe and trust you</td>
<td>Establishing trust</td>
</tr>
<tr>
<td>Getting them aligned\nDeveloping an interpersonal relationship\nHaving a good relationship\nI get that respect from them\nPeople are appreciative\nPut a lot of effort in engaging\nIt is about how you deal with people early on is to establish a therapeutic relationship not going anywhere unless there is a relationship building a relationship from day one</td>
<td>Establishing a relationship</td>
</tr>
<tr>
<td>I do self-disclose at times, but I am very careful</td>
<td>Self-disclosing to engage</td>
</tr>
<tr>
<td>That can take some time\ngiving a lot of time to these people. It took a while. Probably about two to three months</td>
<td>Engaging taking time</td>
</tr>
<tr>
<td>Need to be really open and honest\nSay what your concerns are\nYou say what your concerns are\nI have to facilitate and encourage openness</td>
<td>Being open and honest</td>
</tr>
<tr>
<td>My approach is more of a friend\nBeing approachable, yet being professional\nAs a friend. I trust her. Someone I like to talk to. She is there. Like a friend, I would say</td>
<td>Being friendly</td>
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### Table 3: Conceptualisation of the category Mutual Relating

<table>
<thead>
<tr>
<th>■ Taking time</th>
<th>■ Seeing it from the inside</th>
<th>■ Sharing a sense of humour</th>
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<tr>
<td>■ Self-disclosing</td>
<td>■ Being non-confrontational</td>
<td>■ Using an individualised approach</td>
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<tr>
<td>■ Sharing common</td>
<td>■ Being non-judgemental ground</td>
<td>■ Recognising your limitations</td>
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<tr>
<td>■ Establishing trust</td>
<td>■ Maintaining confidentiality</td>
<td>■ Knowing when there is a relationship</td>
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<tr>
<td>■ Being friendly</td>
<td>■ Tuning in</td>
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promotion of wellness into the care of clients who were experiencing an early episode of psychotic illness. Analysis then focused on identifying a core category and attempting to establish links between this and other categories (Charmaz 1990, 2000). It is important to recognise that coding, like constant comparative analysis, is a cyclical process; shifting from open to axial and then selective coding and, at times, simultaneously coding at several levels. A core category began to emerge only after constant comparative analysis with the data, persistent questioning and painstaking analytical thinking. The core category was conceptualised as Adopting Care Provider-Facilitator Roles, which represented the way nurses made the most of their situation and the resources available to them, in the face of various influences that moderated the activity of enhancing illness-wellness transition. The core category recurred frequently in the data and represented the processes that nurses used in response to the problem of Uncertainty of Direction.

Once the core category was identified, the researcher concentrated on modification of the categories and integration of the theory with the categories and subcategories (Carpenter 1995) (Table 4). The categories were clustered around three phases of care: engaging, advancing self-determination and developing linkages. The phases, in turn, were embedded within two domains or foci of care: interacting with the client and interacting with others. Overall, a substantive theory emerged that highlighted the strategies

<table>
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<th>Table 4: Overview of the theory</th>
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<td><strong>Core problem</strong></td>
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<td><strong>Core category</strong></td>
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<td><strong>Domains</strong></td>
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<td><strong>Phases</strong></td>
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<td><strong>Categories</strong></td>
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that nurses used to enable clients who were experiencing an early episode of psychotic illness to regain a state of well-being.

**Conclusion**

Once the jargon and the technical language have been unwrapped and consideration has been given to the particular approach to grounded theory, the methodology provides a valuable tool in nursing research. It is important that there is continuity between the study’s research question(s), aims and data collection methods. It is also necessary that researchers ensure that they have adhered to the seven key characteristics of grounded theory.

Terence V McCann RMN, RGN, PhD, MA, BA, DipNurs (Lond), RNT, RCNT, Associate Professor of Mental Health, School of Nursing and Midwifery, Victoria University, Melbourne, Victoria, Australia
Eileen Clark, BA, MLitt, MSocSci, GDipEnvMgt, Lecturer, School of Nursing and Midwifery, La Trobe University, Wodonga, Victoria, Australia


