INTRODUCTION

The grounded theory approach is both a way to do qualitative research and a way to create inductive theory. The approach was developed by the sociologists Glaser and Strauss in the USA. Their first book *Discovery of Grounded Theory* was published in 1967. Awareness of the fact that the grounded theory approach comes from sociology helps one to understand better some of its steps and processes. The grounded theory approach has traditionally been part of the postpositivist inquiry paradigm, but it approaches the constructivist inquiry paradigm (Annells, 1996). The approach has been further developed by Glaser (1978), Chenitz and Swanson (1986) and Strauss and Corbin (1990). Using the grounded theory approach, it is possible to study the meanings of events for people. This is based on the assumption that meanings must be shared and this sharing is accomplished via a common language and socialization (Chenitz & Swanson, 1986). Grounded theory research addresses social processes composed of meanings, which are meant to be clarified and made public (Glaser, 1978; Chenitz & Swanson, 1986; Smith & Biley, 1997).

The grounded theory approach has been used in nursing research since 1970. The studies have focused especially on nursing practice and nursing education (May, 1979; Duffy, 1983; Janhonen, 1992; Brandriet, 1994). The reason for the choice of the approach has usually been that it is a way to create theory (Glaser, 1978; Baker *et al.*, 1992; Olshansky, 1996; Bailey, 1997).

A theory is composed of concepts and their mutual connections. It is a systematic structure which describes, explains and/or controls phenomena (Walker & Avant, 1988; Meleis, 1991). According to Glaser and Strauss (1967), grounded theory is inductively derived from the study of the phenomenon it represents. It may be either substantive or formal. A substantive theory is relevant to the people concerned and is readily modifiable (Glaser, 1978). A formal theory...
is developed further than a substantive theory. It meets the criteria of fit, relevance and easy modification (Strauss & Corbin, 1990). Relevance means that the grounded theory approach allows core problems and processes to emerge. To aid the effort to arrive at the core categories, Glaser and Strauss (1967) have developed the notion of Basic Social Process (BSP), which explains a considerable portion of the action in an area and relates to most categories of lesser weight used to make the theory workable.

In studies utilizing the grounded theory approach, the discovered grounded theory is generally called a theory (Chen, 1996; Frenn, 1996) or a model (Wilde et al., 1994; Kyngäs & Hentinen, 1995; Backman & Hentinen, 1997). In the scientific sense, a model may be used to define or describe something and to specify relationships and processes, while a theory is a systematically related set of statements, including law-like generations, which is empirically testable (Lancaster & Lancaster, 1981). It is also possible to use two or more methodological approaches to generate theory. For example, Sandelowski (1995a) formulated a theory about the transition of infertile couples to parenthood based on three studies, of which one utilized grounded theory.

Studies where grounded theory is created are called the grounded theory approach (Strauss & Corbin, 1990), grounded theory research (Glaser, 1978) or the grounded theory method (Chenitz & Swanson, 1986). The approach of research could be called the paradigm of inquiry within which the method resides. It implies certain philosophical backgrounds which direct the research process. In that way the grounded theory can be seen as an approach (Smith & Biley, 1997).

When a person reads for the first time about the grounded theory approach, it may seem quite clear and straightforward. Especially the new methodological books (i.e. Strauss & Corbin, 1990) describe the analysis process in notable detail. According to Glaser (1978), however, grounded theory research is a many-faceted process. It requires time and theoretical sensitivity to move from the data to the theory and back. There are many problems involved in the grounded theory approach, which especially need to be considered by a novice researcher. In this paper, the grounded theory approach is described as a process undertaken by the researcher. The purpose of this paper is to discuss the challenges of the grounded theory approach and the problems encountered by a researcher using the method for the first time. No research examples are given, and ethical considerations are also omitted.

**GROUNDDED THEORY APPROACH AS A RESEARCHER’S PROCESS**

According to the traditional research practice, a research process is imitated by identifying the phenomena and by naming the research problems. After the data have been collected and analysed, the results and conclusions are reported. When the grounded theory approach is used, however, the research does not necessarily follow the chronological stages of the traditional research process. Data collection, data analysis and the formulation of grounded theory often take place at the same time. This may be problematic for the researcher, because it may cause difficulties in shaping the research process as a whole.

**Reading the literature and formulating the study questions**

A grounded theory is inductively derived from the process of study. One does not begin with a hypothetical theory and, then prove it. Rather, one begins by collecting the data in the field first. Then the researcher starts analysing the data and generating a theory. (Strauss & Corbin, 1990.) According to Glaser (1978), the presupposition of an inductive approach is that the researcher has as few preconceived ideas about the research phenomena as possible. There is the risk of a biased interpretation of the data, if one is too imbued with concepts from the literature. This detachment may, however, be quite difficult for a novice researcher because reading the literature usually helps to clear up one’s thoughts and to narrow down the topic of research.

The grounded theory approach may also be used when there is already some knowledge about the research phenomenon, but a new point of view is sought (Strauss & Corbin, 1990; Bailey, 1997; Smith & Biley, 1997). In that case, the researcher needs to get familiar with the previous knowledge so as to be able to outline the research phenomenon. The problem is that previous knowledge may direct the research and make it more difficult to find a new point of view (Olshansky, 1996.) This requires bracketing. To bracket, the researcher must identify and suspend what he/she already knows about the experience being studied and approach the data without preconceptions. This could be particularly difficult to a novice researcher, because he/she has little experience about the emotions involved in data collection and analysis in qualitative research. However, it has also been said that, from the grounded theory perspective, the researcher is a social being who also creates and recreates social processes. Therefore,
previous experiences are also data. No effort is made to put aside ideas or assumptions about the situation being studied. On the contrary, the researcher uses them in order to understand better the processes being observed (Baker et al., 1992). Sandelowski (1993) points out that although a theoretical orientation may not be explicitly stated in a qualitative project, or may even be denied, it is always implicit in the way a problem is presented, in the way the literature is reviewed and, most importantly, in the selection and description of the method itself. According to Strauss and Corbin (1990), the literature review also implicitly displays the authors’ theoretical sensitivity toward the target phenomenon, and the qualitative method itself is based on a priori assumptions about and interpretations of inquiry.

The research questions in grounded theory research are statements that identify the phenomenon to be studied. The questions are formulated so that they give the researcher the flexibility and freedom to explore the phenomenon in depth (Glaser, 1978; Strauss & Corbin, 1990). Concepts which strictly narrow down the research questions easily direct the study deductively. On the other hand, clean-cut and well-defined concepts make it easier for a novice researcher to maintain the logic of the study. If the research questions are very flexible and the researcher begins data collection by interviewing, the choice of suitable themes may also be problematic. During the first interviews the researcher may wonder whether the essential matters are discussed or not. According to Glaser (1978), the researcher is not able to know beforehand what the essential matters are and the research question may even change during data collection.

**Data collection**

The data are generally collected by using interviews, observations, diaries or other written documents or a combination of some methods (Glaser, 1978; Chenitz & Swanson, 1986; Strauss & Corbin, 1990). The grounded theory literature emphasizes (Glaser, 1978; Chenitz & Swanson, 1986; Strauss & Corbin, 1990) the need to combine many data collection methods. In nursing studies, however, mainly only interview data are used. In that case, the research does not necessarily account for the social structural influences on the experiences of the respondents (Benoliel, 1996).

Theoretical sampling refers to a data collection process which aims to create theory, which means that coding and analysing serve as data collection in the next phase. When theoretical sampling is used, data collection is started by concentrating on the social processes that appear inherently the most interesting. After preliminary data collection and analyses, the sampling can be made more selective, because preliminary hypotheses which describe the phenomenon emerge from the data and promote the data collection further (Glaser, 1978).

According to Glaser (1978), theoretical sampling should be used in the grounded theory approach (also Glaser & Strauss, 1967; Strauss & Corbin, 1990; Olshansky, 1996). Nevertheless, many researchers decide to use a selective sample. In that case, the subjects are mainly chosen before the data collection, and the data are collected within a certain time. Selective sampling is defended on the grounds that it is impossible to address the whole research phenomenon. Using the selective sampling, the researcher is able to make his/her choices based on his/her interest and the possible restrictions placed on his/her research work (Schatzman & Strauss, 1973). A programme of research employing grounded theory typically begins with a selective sampling strategy aimed at phenomenological variation and then proceeds to theoretical sampling (Sandelowski, 1995b).

If the data are collected within a certain time and not analysed simultaneously, it is difficult to determine the theoretical shape and to recognize the saturation. Simultaneous collection and analysis of data and the emergency theoretical structure help to orient further data collection. It helps to find key words and key persons, to outline the research phenomenon and to organize the process in an attempt to control the study (Glaser & Strauss, 1967; Glaser, 1978). This is important for a novice researcher. Using theoretical sampling, the researcher may, however, make conclusions that are too firm, based on his/her preliminary analyses, and this may influence too strongly the further data collection and the emerging theory.

**Data analysis**

Data analysis is like a discussion between the actual data, the created theory, the memos and the researcher. Such discussion takes place when the data are broken down, conceptualized and put back together in new ways. The data give rise to the codes and the categories which combine the codes. The categories and hypotheses must be verified against the data by comparing the categories with each other, with the data and with the researcher’s conclusions (Glaser & Strauss, 1967; Glaser, 1978; Chenitz & Swanson, 1986; Strauss & Corbin, 1990). If the researcher has preliminary assumptions or
knowledge about the research phenomenon, then that
could have an effect on the analysis. For a novice re-
searcher, however, it is useful to have some previous
knowledge, because it can help the analysis. In that
case the grounded theory is not created exclusively
based on actual data, but it may also be based on
previous knowledge about the research phenomenon.
Some authors (Chenitz & Swanson, 1986; Smith &
Biley, 1997) point out that the previous knowledge
should be used in a phase when the researcher com-
pares her/his theory with the previous theories.
The data analysis can also be seen as the re-
searcher’s process. According to Glaser (1978), the
process has three phases. The first phase is called
‘input’. In that phase the data move as part of the
researcher’s thinking. In the second phase the data
are in the researcher’s mind. He/she has a lot of dif-
f erent ideas concerning the theory, but nothing seems
clear. This is called a ‘drugless trip’. The last phase,
called ‘saturation’, is the most important for theory
development. In this phase the researcher writes
down the results of the analysis and makes his/her
conclusions.

Data analysis is started during the data collection.
In this phase the researcher identifies the research
phenomenon. The process continues while coding the
data. During the analysis, categories are identified and
developed in terms of their properties and dimensions
through a process involving the generation of basic
categories to describe features of the data and con-
stant comparisons between cases, instances and cat-
egories. Similar events and incidents are grouped
together into categories. (Glaser, 1978; Chenitz &
Swanson, 1986; Strauss & Corbin, 1990).

In the input phase it may be difficult to understand
how the codes are connected to others. This may
cause a feeling that the data do not describe the
research phenomenon. According to Glaser (1978),
this is a consequence of the fact that the researcher
is processing the data unconsciously and is unable yet
to identify and write down codes and categories.
Generally, the researcher wants to discuss the organi-
zation of the data with someone else. Discussion can
help the researcher to continue the analyses, but
he/she may also feel confused, because other people’s
opinions may be so different from hers/his and it can
require energy to continue the work. Glaser (1978)
presents as a solution that the researcher should read
the data again and again and continue coding even
if he/she is very unsure about the analysis. His
advice is that the researcher should write down
his/her thoughts and discuss them later with other
people. A novice researcher may experience this
phase as very chaotic. He/she has a lot of ideas about
the construction of theory, but he/she is unable to
make discoveries yet.

In the second phase of the drugless trip, the
researcher gradually identifies the grounded theory.
He/she studies the connections between the cat-
egories. One method to find them is axial coding. It is
a complex process of inductive and deductive think-
ing involving several steps. It puts the data back
together in new ways by making connections between
a category and its subcategories (Strauss & Corbin,
1990). The focus of axial coding is on specifying
a category in the context in which it had appeared.
Axial coding can be done in accordance with the 18
paradigms presented by Glaser (1978). One of these
paradigms is the 6 C paradigm model (Chenitz &
Swanson, 1986), where the categories are studied in
terms of their contexts, consequences, causes, con-
ditions, covariance and contingents (Glaser, 1978;
Chenitz & Swanson, 1986; Strauss & Corbin, 1990;
Munchall & Oiler, 1993). When doing axial coding
by the 6 C paradigm, it is difficult to decide the dif-
f erences between the causes and conditions. Accord-
ing to Mackie (1985), the cause of some action can
also be its condition. Furthermore, the definition of
covariance in axial coding may be difficult to under-
stand. How can we indicate that some categories ap-
pear at the same time? Axial coding is a laborious
and time-consuming process. During that process the
researcher concretely discusses with his/her data, but
on the other hand, the process is very abstract and
takes place deep in the researcher’s mind and partly
unconsciously. The researcher must tolerate the
uncertainty of not finding connections between the
categories or feeling that they describe the research
phenomenon inadequately (Glaser, 1978). On the
other hand, many things take place fast or appear to
do so in grounded theory. Categories may emerge
before a few interviews are over, and one or two can
be overriding or consist of core contents that seem
to wrap up the whole study. The researcher should,
however, put the brake on these premature forays
because the generating process takes time (Glaser,
1978).

Gradually, the researcher gets to know what kind of
theory is emerging. The problem can be that the
researcher has so many ideas about the theory that
he/she misses the essential points. Glaser (1978)
advises that in this phase the researcher should write
down all his/her ideas. To discover the final categories,
the researcher returns to the data again and again and
makes sure that the categories are based on data and
have connections (Strauss & Corbin, 1990). Data
collection, analyses and theory stand in reciprocal
relationship with each other.
The goal of grounded theory is to generate a theory that accounts for a pattern of behaviour which is relevant for those involved. The generation of theory takes place around a core category (Glaser, 1978). A novice researcher may find it difficult to look for a core variable when coding his/her data, because switching one’s focus from studying a unit to studying a process is painful. It takes time and much coding and analysis to verify a core category through saturation, relevance and workability.

Basic Social Processes are one type of core category. Basic Social Processes implies change over time, and two types were identified by Glaser (1978) as of interest to social scientists: (i) basic psychological process (BSPP) occurring to individuals and/or groups; and (ii) basic social structural process (BSSP) referring to changes in social structural arrangements. A major concern for the investigator is to determine how contextual features of the environment influence the direction and form of the identified social process (Benoliel, 1996).

While analysing, the researcher should write theoretical memos, which include the ideas that he/she has during the process. The memos help to develop the characteristics of categories and to integrate them, to create hypotheses and theory (Chenitz & Swanson, 1986; Strauss & Corbin, 1990; Anderson, 1991; Baker et al., 1992). The researcher may be tired and disappointed in this phase. The discovered theory may seem simple, and the researcher may not want to read his/her texts. According to Glaser (1978), it is good to take a pause and to discuss the theory with other people and write more memos before writing the final results.

The presentation of the results and their reliability

One key element in the successful dissemination and utilization of qualitative findings is a well-written research report. In contrast to quantitative research, there is no single style for reporting the findings of qualitative research. Qualitative researchers must select from an array of representational styles and formats those that best fit their research purposes, methods, and data. The purpose of a grounded theory study is to emphasize the researcher’s theoretical re-formulation of the data, while the data themselves only appear to support the theory. Data are only used to show how a theory was constructed, and that it was indeed constructed from this data (Sandelowski, 1998a).

Glaser and Strauss (1967) point out that the results section of a report should start by presenting first the discovered grounded theory and the categories. The presentation of the results is a challenge for the researcher, and it has been done in many different ways. According to Sandelowski (1998a), there are three ways of presenting the findings from grounded theory studies: (i) coding families; (ii) typology family; and (iii) the use of strategy while coding a family. The researcher develops his/her own style to organize the results of his/her study. The results are discovered via a multiphase process. The researcher is able to describe part of this process accurately, but part of the process has taken place unconsciously in the researcher’s mind, and this part of the process is difficult to write down. This may cause problems to the readers, because they are unable to follow the way in which the results have been discovered and to understand the connection between the data and the results. For this reason, the readers may consider the discovered theory unreliable.

According to Glaser (1978), there are two essential factors to evaluate in grounded theory. The theory must have fit and relevance and it must work. Fit means that the categories of the theory have a connection to the data. It is not permissible to force the data to the categories which the researcher has discovered. The connection between the theory and the categories has to be confirmed by continuous comparative analysis, which means that the researcher has to compare, during the whole process, first the substantive codes and their properties, later the categories and their contents, and finally the discovered theory with other theories. Work means the theory’s ability to explain the phenomenon and to predict and interpret actions which are connected to the phenomenon. Especially the working of the theory is difficult to establish. The discovered grounded theory may need to be tested before it can be used for predicting.

The purpose of the grounded theory approach is to create a theory which has connections with the data. The instructions for the analysis process emphasize that the connection with data should be maintained throughout the whole process. This requirement may prevent the researcher from conceptualizing the data and from formulating abstract categories and discovering theory. The problem is how the researcher is able to disengage from the data to create theory. If he/she is unable to do that, he/she may discover a theory which is naive, concrete and written by using the same terms as in the data. In that case the discovered theory may be simplistic and ill-constructed.

One possibility to validate the results is to use an expert, someone outside the project, with special knowledge, who warrants the study as good and
true. Sandelowski (1998b), however, points out that an outsider-expert can only serve as an advisor, trouble-shooter, and peer-debriefer. They cannot evaluate the interpretation made by the researcher.

**DISCUSSION**

There are many methodological books and articles concerning the grounded theory approach in nursing science, but also in other sciences (Glaser & Strauss, 1967; Glaser, 1978; Chenitz & Swanson, 1986; Charmaz, 1990; Strauss & Corbin, 1990; Anderson, 1991; Hutchinson, 1993; Keddy et al., 1996; Wilson & Hutchinson, 1996). The essential point for a novice researcher is whether he/she is committed to certain methodological books and their instructions or tries to apply several different instructions and views. There are different ways of discovering the grounded theory, and this may confuse a novice researcher during the complicated and difficult research process.

The use of the grounded theory approach requires a novice to commit him/herself to a time-consuming and long process. To discover the grounded theory assumes a dialogue between the data and the theory. For a novice researcher, applying the grounded theory approach is more or less a compromise between the demands of the approach and the resources which he/she has available.

The literature does not contain many descriptions about the grounded theory approach as a researcher’s process. It often surprises the researcher by its challenges. During the past few years the different ways of using the grounded theory approach have also been discussed (Annells, 1996; Melia, 1996).

In their book titled *Basics of Qualitative Research*, Strauss and Corbin (1990) describe systematically how to analyse the data. The method can be a good tool for a novice, but it may also hinder the way to create inductive theory. Burns (1989) considers the basis of evaluating qualitative research and emphasizes both flexibility and accuracy. Probably the creation of theory by the means of the data and the simultaneous observance of instructions is the biggest challenge of the grounded theory approach.

**REFERENCES**


