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## Research made simple: What is grounded theory?

Noble, H., & Mitchell, G. (2016). Research made simple: What is grounded theory? *Evidence-Based Nursing*, 19(2), 34-35. <https://doi.org/10.1136/eb-2016-102306>

**Published in:**  
Evidence-Based Nursing

**Document Version:**  
Peer reviewed version

**Queen's University Belfast - Research Portal:**  
[Link to publication record in Queen's University Belfast Research Portal](#)

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# **Evidence Based Nursing: Research Made Simple Series**

## **Title: What is Grounded Theory?**

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### **Introduction**

Grounded Theory (GT) is a research method concerned with the generation of theory, (Glaser and Strauss, 1967) which is 'grounded' in data that has been systematically collected and analysed (Strauss and Corbin 1994). It is used to uncover such things as social relationships and behaviours of groups, known as social processes (Crooks 2001). It was developed in California, US by Glaser and Strauss during their study – 'Awareness of Dying' (Glaser and Strauss 1967). It is a general methodology for developing theory that is grounded in data which is systematically gathered and analysed.

### **Features of GT**

- Data collection and analysis occur simultaneously
- Categories and analytic codes developed from data. Pre-existing conceptualisations not to be used – this is known as theoretical sensitivity (see below)
- Theoretical sampling used to refine categories
- Abstract categories constructed inductively
- Social processes discovered in the data
- Analytical memos used between coding and writing
- Categories integrated into a theoretical framework (Charmaz 1995)

### **Carrying out a GT study**

Firstly the area of interest is identified. Theoretical preconceptions should be avoided, although it is accepted this is difficult in practice. Analytical procedures and sampling strategies are then used and the study is finished when theoretical sampling reached (Dey 1999) – all discussed below. Data collected may be qualitative or quantitative or a combination of both. Data collection methods often include in-depth interviews using open-ended questions. Questions can be adjusted as theory emerges. Observational methods and focus groups may also be used.

### **Theoretical sampling**

Glaser and Strauss (1967) first mentioned theoretical sampling and described a process of generating theory from data which includes collecting the data, then coding and analysing

the data. Next the researcher makes a conscious decision about what further detail they feel needs exploring as the new theory develops. It usually takes place after some initial key concepts or categories have been identified. E.g you might decide to interview patients about their experience of heart failure. They may talk about systematic errors occurring in the GP surgery. From this analysis of the data you may decide to approach and interview GPs to explore their views on patients' comments. Theoretical sampling therefore, is used to produce more data to endorse or refute the categories that have been identified in the previous analysis (Charmaz 1990).

### **Theoretical sensitivity**

Theoretical sensitivity refers to the insight of the researcher. It concerns the researcher being able to give meaning to data, understand what the data says, and being able to separate out what is relevant and what isn't. By being theoretically sensitive and using insight, the researcher is able to develop a theory that is grounded, theoretically dense, and cohesive (Glaser 1978). Sensitivity comes from several sources including (a) literature - in depth reading offers a rich understanding of the phenomena being studied; (b) professional and personal experience - offers an understanding of the events and topics being explored; (c) the analytic process - allows for insight and understanding of the phenomena (Strauss and Corbin 1990).

### **Analysis of data in GT**

There are three stages of data analysis in GT (Strauss and Corbin 1990):

1. Open coding – This involves line by line coding where concepts and key phrases are identified and highlighted and moved into sub-categories, then categories. This breaks the data down into conceptual components and the researcher can start to theorise or reflect on what they are reading and understanding – making sense of the data. The data from each participant will be 'constantly compared' for similarities.
2. Axial coding – at this stage relationships are identified between the categories, and connections identified
3. Selective coding - This involves identifying the core category and methodically relating it to other categories. The relationships must be authenticated and categories refined. Categories are then integrated together and a Grounded Theory identified.

Analytical notes are encouraged. These are notes to oneself to explain thought patterns in relation to the data analysis. Final theory is usually generated from the integration of several analytical memos.

### **The Core Category**

The core category is the chief phenomena around which the categories are built. Theory is generated around a core category. The core category should account for the variation found in the data i.e the categories will relate to it in some way. The categories demonstrate how the core category is situated in the lives of those participating in the study.

### **Example of a Grounded Theory Case Study**

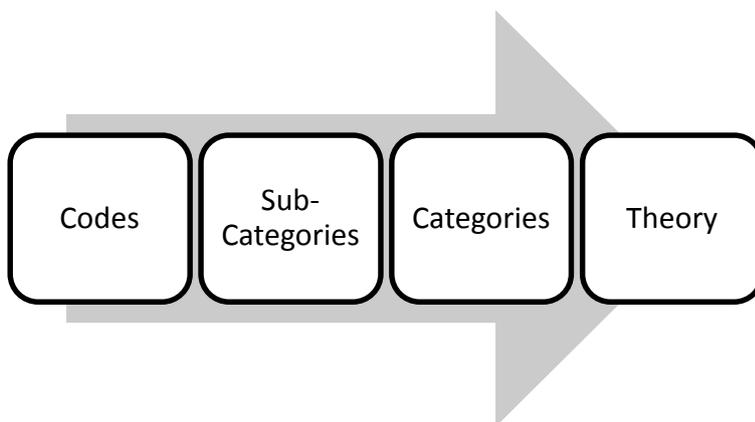
As illustrated, GT methodologies involve the construction of new theory through the analysis of data. In a study carried out by Beech et al. (2012), the authors sought to explore patient participant experiences of recovery following surgical intervention for colorectal cancer. Beech et al. (2012) opted to use GT because previous studies had sought to answer this research question by measuring quantifiable biomedical markers, such as symptoms of pain, insomnia or fatigue. According to the authors, there was a paucity of empirical literature

around the topic from a holistic perspective, for example social, psychological and cultural aspects of a person's wellbeing.

Twelve participants were interviewed four times, over a one-year period. The authors used theoretical sampling to guide the researcher as data were collected. It helped facilitate the development of theory as it emerged, not once data collection was complete (Glaser and Strauss, 1967). Initial participants were selected based on 'subject area', as is recommended in theoretical sampling. Each had undergone a surgical procedure to remove a tumour in their bowel or rectum and had not received prescribed chemotherapy or radiotherapy. The authors initially asked patient participants to describe their experiences to date.

Data analysis of the interviews was carried out according to the steps described by Straus and Corbin (1998). The authors began by coding each line of each patient participant transcript. Similar codes were then grouped together to form sub-categories and within these sub-categories categories were identified. The authors then grouped together the categories to form theory related to patient participant experiences of recovery following surgical intervention for colorectal cancer. The process of data collection continued until each category was saturated and no new data emerged.

**Figure 1: Grounded theory data analysis**



Patient participants described their recovery in three phases identified from three categories; disrupting the self, repairing the self and restoring the self. The authors also noted how the process was linear in that all participants went through the stages, for example phase one began at pre-diagnosis and ended at the conclusion of surgery; phase two commonly lasted between 3-6 months and phase three, from 6 months onwards, was related to a person's fluctuating level of wellness and illness. Notably, these three categories were underpinned by various sub-categories, which were generated from initial codes. For example, the second category Beech et al. (2012) identified, 'disrupting the self', was made up of the three sub-categories; body repair, autonomy and re-establishing personal identity.

Importantly, the authors encapsulated the three categories to present a pertinent theory related to patient participant experiences of recovery following surgical intervention for colorectal cancer. They found that recovery is more than physical repair. It is a process of restoring a sense of wellness demonstrated through an awareness and enjoyment of the physical, emotional, social and spiritual aspects of life, in other words, holistic health (Beech et al. 2012).

## **Summary**

By using GT and adhering to this as a research method, a theory will be produced that is grounded in your data (Strauss & Corbin 1998). It is a research method which uses strict procedures for data analysis and will enable you to search for and conceptualise the hidden social and collective patterns and constructions in your area of interest.

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