

# **Grounded Theory: What Makes a Grounded Theory Study?**

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## **Unstructured abstract**

Grounded theory is both a research method and a research methodology. There are several different ways of doing Grounded Theory which reflect the different viewpoints of the originators. For those who are new to this approach to conducting qualitative research this can be confusing. In this article we outline the key characteristics of Grounded Theory and describe the role of the literature review in three common Grounded Theory approaches, illustrated using exemplar studies.

## **Learning objectives**

1. Describing the key characteristics of a Grounded Theory study
2. Considering the role and timing of the literature review in different Grounded Theory approaches

**The problem: The role of the literature review is different depending on which type of Grounded Theory approach is used.**

1. Introduction

Qualitative research is a cornerstone in cardiovascular research. It gives insights in why particular phenomena occur or what underlying mechanisms are <sup>1</sup>. Over the past two years, the European Journal of Cardiovascular Nursing published 20 qualitative studies <sup>2-21</sup>. These studies used methods such as content analysis, ethnography, or phenomenology. Grounded theory (GT) has been used to a lesser extent.

GT is both a methodology and a method used in qualitative research (Table 1). It is a research approach used to gain an emic insight into a phenomenon. In simple terms this means understanding the perspective, or point of view, of an ‘insider’, those who have experience of the phenomenon <sup>22</sup>. GT is a research approach that originated from the social sciences but has been used in education and health research. The focus of GT is to generate theory that is grounded in data and shaped by the views of participants, thereby moving beyond description and toward theoretical explanation of a process or phenomenon <sup>23</sup>.

One of the key issues with using GT, particularly for novices, is understanding the different approaches that have evolved as each specific GT approach is slightly different.

Table 1: Grounded Theory as a Method and Methodology

	Methodology	Method
	Framework of principles on which the methods are based.	Strategy for conducting the research. Methods outline how data will be collected, analysed, and interpreted.
GT application	Researcher openness, with an inductive approach to data. Theory can be generated based on data.	Concurrent data collection and analysis, use of codes and memos for data analysis.

The tradition of GT began with the seminal text about classic GT written by Glaser and Strauss<sup>24</sup>, but since then GT has evolved into several different types. The approach to GT chosen by the researcher depends upon an understanding of the epistemological underpinnings of the different approaches, the match with the topic under investigation and the researcher's own stance. Whilst GT is frequently used in applied health research, very few studies detail which GT approach has been used, how and why. Sometimes published studies claim to use GT methodology but the approaches that form the foundation of GT are not reported. This may be due to the word limit in academic journals or because legitimate GT approaches have not been followed. Either way there is a lack of clarity about the practical application of GT. The purpose of this article is to outline the distinguishing characteristics of GT and outline practical considerations for the novice researcher regarding the place of the literature review in GT.

## 2. Distinguishing features of Grounded Theory

There are several distinguishing features of GT, as outlined by Sbaraini et al.<sup>25</sup>. The first is that GT research is conducted through an inductive process. This means that the researcher is developing theory rather than testing it and must therefore remain 'open' throughout the study. In essence, this means that the researcher has no preconceived ideas about the findings. Taking an inductive approach means that the focus of the research may evolve over time as the researchers understand what is important to their participants through the data collection and analysis process.

With regards to data analysis, the use of coding is initially used to break down data into smaller components and labelling them to capture the essence of the data. The codes are compared to one another to understand and explain any variation in the data before they are combined to form more abstract categories. Memos are used to record and develop the researcher's analysis of the data, including the detail behind the comparisons made between categories. Memos can stimulate the researcher's thinking, as well as capturing the researcher's ideas during data collection and analysis.

A further feature for data analysis in a GT study is the simultaneous data analysis and sampling to facilitate theoretical sampling. This means that as data analysis progresses participants are purposefully selected who may have characteristics or experiences that have arisen as being of interest from data collection and analysis so far. Questions in the topic guide may also be modified to follow a specific line of inquiry, test ideas and interpretations, or fill gaps in the analysis to build an emerging substantive theory. This evolving and non-linear methodology is to allow the evolution of the study as indicated by data, rather than analysing at the end of data collection. This approach to data analysis supports the researcher to take an inductive approach as discussed above.

Theoretical sampling facilitates the construction of theory until theoretical saturation is reached. Theoretical saturation is when all the concepts that form the theory being developed are well understood and grounded in data. Finally, the results are expressed as a theory where a set of concepts are related to one another and provide a framework for making predictions <sup>26</sup>. These key features of GT are summarized in Table 2.

Table 2: Distinguishing features of a GT study (adapted from Sbaraini et al.<sup>25</sup>)

Distinguishing feature	Description
Openness	GT is concerned with the development of theory rather than testing it. The researcher has no preconceived ideas about the findings, and the study evolves over time.
Concurrent data collection and data analysis	Data analysis occurs at the same time as data collection.
Coding	Data is broken down into smaller components and assigned a label to capture the essence of the data.
Memos	Memos are a record of the researcher's ideas and thoughts during data collection and analysis. Use of memos

	helps to develop the researcher's analysis.
Theoretical sampling	Purposeful selection of participants who may have characteristics or experiences that have arisen as being of interest from data collection and analysis. Theoretical sampling also includes modifications to the topic guide to allow the researcher to explore ideas arising from the interviews or fill gaps in the developing theory.
Theoretical saturation	When all the concepts that form the theory are well understood and grounded in data.
Theory generation	The results of the study are expressed as a substantive theory. The key aim of GT is to generate a substantive theory, in other words a theory to explain specific population experiences of a phenomenon.

### 3. The role and timing of the literature review

The identification of a gap in the published literature is typically a requirement of successful doctoral studies and grant applications. However, in GT research there are different views about the role and timing of the literature review.

For researchers using classic Glaserian GT the recommended approach is that the published literature should not be reviewed until data collection, analysis and theory development has been completed <sup>24</sup>. The rationale for the delay of the literature review is to enable the researcher to remain 'open' to discover theory emerging from data and free from contamination by avoiding forcing data into pre-conceived concepts derived from other studies. Furthermore, because the researcher is 'open' to whichever direction the data takes they cannot know in advance which aspects of the literature will be relevant to their study <sup>27</sup>.

In Glaserian GT, the emerging concepts and theory from data analysis inform the scope of the literature review which is conducted after theory development <sup>24</sup>. This approach to the literature review aligns with the rather positivist stance of Glaser in which the researcher aims to remain free of assumptions so that the theory that emerges from the data is not influenced by the researcher. Reviewing the literature prior to data analysis would risk theory being imposed on the data. Perhaps counterintuitively, Glaser does recommend reading literature in unrelated fields to understand as many theoretical codes as possible <sup>28</sup>. However, it is unclear how this is different to reading literature directly related to the topic and could potentially still lead to the contamination of the theory arising from data that delaying the literature review is intended to avoid. It is also problematic regarding the governance processes around research, whereby funders and ethics committees would expect at least an overview of the existing literature as part of the justification for the study.

A study by Bergman et al. <sup>29</sup> used a classic Glaserian GT approach to examine and identify the motive of power in myocardial infarction patients' rehabilitation process. Whilst the key characteristics of GT were evident in the way the study was conducted, there was no discussion about how the literature review contributed to the final theory. This may have been due to word limit but illustrates the challenges that novice researchers may have in understanding where the literature review fits in studies using GT approaches.

In Straussian GT, a more pragmatic approach to the literature view is adopted. Strauss and Corbin <sup>30</sup> recognised that the researcher has prior knowledge, including that of the literature, before starting their research. They did not recommend dissociation from the literature, but rather that the literature be used across the various stages of the research. Published literature could identify important areas that could contribute to theory development, support useful comparisons in the data and stimulate further questions during the analytical process. According to Strauss and Corbin, researchers should be mindful about how published work could influence theory development. Whilst visiting the literature prior to data collection was believed to enhance data analysis, it was not thought necessary to review all the

literature beforehand, but rather revisit the literature at later stages in the research process <sup>30</sup>.

A study published by Salminen-Tuomaala et al. <sup>31</sup> used a Straussian GT approach to explore factors that influenced the way patients coped with hospitalization for acute myocardial infarction. The authors described a reflexive process in which the researcher noted down their preconceived ideas about the topic as part of the data analysis process. The literature review was conducted after data analysis.

The most recent step in the evolution of GT is the move towards a constructivist epistemological stance advocated by Charmaz <sup>32</sup>. In simple terms this means that the underlying approach reflects the belief that theories cannot be discovered, but are instead constructed by the researcher and their interactions with the participants and data. As the researcher plays a central role in the construction of the GT, their background, personal views, and culture will influence this process and the way data are analysed. For this reason it is important to be explicit about these preconceptions and aim to maintain an open mind through reflexivity <sup>32</sup>. Therefore, engaging in a preliminary literature review and using this information to compare and contrast with findings from the research undertaken is desirable, alongside completing a comprehensive literature review after data analysis with a specific aim to present the grounded theory.

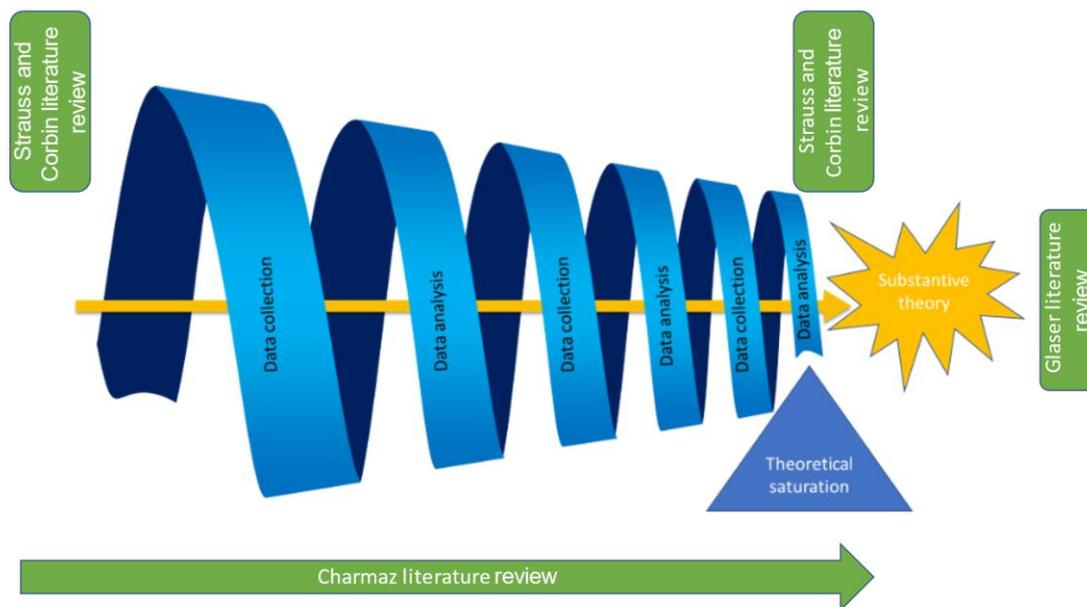
A study published by Odell et al. <sup>33</sup> used the modified GT approach recommended by Charmaz <sup>32</sup> to study patients' experiences of restenosis after Percutaneous Coronary Intervention. The authors described the different GT approaches and key features of GT methodology which clearly informed the conduct of the study. However, there was no detail about how the literature review was used to shape the data analysis process and findings.

### **A Solution: Be clear on the approach taken to the literature review and why**

Despite the clear differences in the approach to the literature review in GT, there appears to be a lack of precise guidance for novice researchers regarding how in depth or exhaustive a preliminary literature review should be. This lack of guidance

can lead to a variety of different approaches as evidenced in the GT studies we have cited as examples, which is a challenge for the novice researcher. This uncertainty is further compounded by the concurrent approach to data collection and analysis which allows for the research focus to evolve as the study progresses. The complexity of the research process and the role and timing of the literature review is summarized in Figure 1.

Figure 1: Role of literature review in GT



Taking a pragmatic approach, researchers will need to familiarize themselves with the literature to receive funding and approval for their study. This preliminary literature review can be followed up after data analysis by a more comprehensive review of the literature to help support the theory that was developed from the data. The key is to ensure transparency in reporting how the literature review has been used to develop the theory. The preliminary literature review can be used to set the scene for the research as part of the introduction, and the more extensive literature review can then be used during the discussion section to compare the theory developed from the data with existing literature, as per Probyn et al. <sup>34</sup>.

Whilst this pragmatic approach aligns with Straussian GT and Charmaz's constructivist GT, it is at odds with Glaserian GT. Therefore, if Glaserian GT is chosen, the researcher should be explicit about deviation and provide a rationale.

Word count for journal articles is often a limiting factor in how much detail is included on why certain methodologies are used. Submitting detail about the methodology and rationale behind it can be presented as online supplementary material, thereby allowing interested readers to access further information about how and why the research was executed.

## **Conclusion**

The use of GT as a methodology and method can shed light on areas where little knowledge is already known, generating theory directly from data. The traditional format of a published article does not always reflect the iterative approach to the literature review and data collection and analysis in GT. This can generate tension between how the research is presented in relation to how it was conducted.

However, one simple way to ensure clarity in reporting is to be transparent in how the literature review is used.

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The authors declare that there are no conflicts of interest

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