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Doing grounded theory in sport and exercise

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Grounded theory is a qualitative methodology based on the premise that theory is indispensable for gaining deep knowledge of social phenomena (Glaser & Strauss, 1967). It originated in sociology in the 1960s and has since become one of the most widely used qualitative methodologies, popular across academic disciplines, and used to pursue a range of research questions. With the popularity and growth of grounded theory it has been subjected to review, critique, modification, and some entertaining disputes played out in the academic literature. The literature is vast, vibrant, and reflects different philosophical and methodological perspectives.

Grounded theory arrived in the sport and exercise literature in the 2000s. Although numerous grounded theory studies have been published over the past two-and-a-half decades, the extent to which researchers in sport and exercise have followed “true” grounded theory methodology has been questioned (Holt & Tamminen, 2010a, b; Hutchinson, Johnston, & Breckon, 2011; Weed, 2009, 2010). A major criticism is that sport and exercise researchers have cherry-picked a handful of techniques from grounded theory rather than using the methodology more completely. This chapter is based on the assumption that the most appropriate application of grounded theory is as a “total” methodology (Weed, 2009). Consequently, my aim in this chapter is to encourage and provide direction for the use of grounded theory as a total methodology. To achieve this aim, I address the question “What makes a grounded theory research a grounded theory?”

What is grounded theory?

As the question I posed above perhaps reflects, there are some issues with the nomenclature surrounding grounded theory that need to be understood to access the literature. First, the term “grounded theory” is used to refer to both the process of conducting a study (i.e., the methodology) and the product (i.e., the theory produced). For instance, a researcher might say “I did grounded theory” to indicate that s/he used grounded theory methodology. Later s/he might say “I created a grounded theory,” and in this instance s/he is referring to the theoretical product arising from the research. Rather confusingly, the term grounded theory is often used interchangeably to refer both to the process and the product of the research. In an attempt to clarify the nomenclature, in the remainder of this chapter I use the term “grounded theory...
methodology” (GTM) when I am referring to the methodology, and the term “grounded theory” when I am referring to the product (i.e., the theory produced).

A second issue is that GTM is an “umbrella term” used to refer to a range of different methodological approaches (i.e., variants of GTM), all of which are theory-generating research methodologies. As a result there is no singular definition of GTM. Yet, in the various definitions of GTM that are available it is clear they share some common characteristics. For instance, Bryant and Charmaz suggested most approaches to GTM involve a “systematic, inductive, and comparative approach for conducting inquiry . . . that leads researchers to examine possible theoretical explanations for empirical findings” (2007, p. 1). According to Charmaz GTM is “a systematic, yet flexible methodology for collecting and analyzing qualitative data to construct theories that are grounded in the data themselves” (2006, p. 2). Similarly, Strauss and Corbin wrote that GTM means “theory was derived from data, systematically gathered and analyzed through the research process. In this method, data collection, analysis, and eventual theory stand in close relationship to one another” (1998, p. 12).

As these descriptions and definitions suggest, unlike the content and thematic analysis (see Chapter 15) – approaches used frequently in the sport and exercise literature (for reviews, see Brustad, 2008; Culver, Gilbert, & Sparkes, 2012) – the end product of GTM research should not simply be a set of themes. Rather, when using GTM the aim is to produce a set of “grounded concepts” (i.e., grounded in data collected in the field) integrated around a central or core category, to form a theoretical framework that explains how and why persons, organizations, or communities experience and respond to events, challenges, or problematic situations (Corbin & Holt, 2011). In other words, the point of using GTM is to develop theory that is grounded in the data. Therefore, I would define GTM as a set of methodological approaches that include techniques and strategies designed to develop theory based on, and grounded in, data collected from people and in social settings.

In order to understand GTM it is necessary to have some understanding of theory itself (see also Chapter 30). After all, if the goal of using GTM is to produce a grounded theory, researchers need to have a basic conceptualization of what that theory might be. Theories can take many forms, varying in terms of their sophistication, structure, and modes of derivation (Morse, 1997). Some theories are highly conceptual with broad applicability and scope, whereas others are more parsimonious and narrow. From a GTM perspective, Corbin and Strauss suggested:

Theory denotes a set of well-developed categories (themes, concepts) that are systematically developed in terms of their properties and dimensions and are interrelated through statements of relationship to form a theoretical framework that explains something about a phenomenon.

(Corbin & Strauss, 2015, p. 62)

Clearly theories are constructions. In GTM, theories are constructed from data provided by participants, which researchers interpret, frame, and retell (Charmaz, 2006; Corbin & Strauss, 2008, 2015). Glaser and Strauss (1967) differentiated between substantive (topic-focused) grounded theories, and formal (concept-focused) grounded theories. Substantive grounded theories are more specific to group and place, whereas formal grounded theories are less specific, and can be applied to a wider range of disciplinary concerns and problems. GTM is rarely used to create formal grounded theories in sport and exercise research. Rather, most grounded theories are at the substantive level; they are process-bound and rarely extend beyond the scope of the phenomenon under study, and are only generalizable to other contexts and other participants.
experiencing similar phenomena (Morse, 1997). Good grounded theories—especially substantive level grounded theories in sport and exercise—should also have practical applications.

A (very) brief history of GTM

Some of the key moments in the history of GTM provide context for the remaining sections of the chapter. The “first generation” of GTM was presented by Barney Glaser and Anselm Strauss. They developed GTM during the course of a research study of people dying in hospitals (Glaser & Strauss, 1965). Then, somewhat as a reaction to the positivistic and deductive approaches to theory development and research that were popular in health sociology at the time, they wrote the seminal book on the methodology, titled The Discovery of Grounded Theory (Glaser & Strauss, 1967). Over time, a “split” occurred as Glaser and Strauss began to take fundamental features of GTM in different directions. Corbin and Strauss noted that it was “not that [Strauss] departed from the methodology developed by him and Glaser but that he had his own techniques or ways of thinking about data when doing analysis” (2015, p. 7).

As a consequence, two versions of the methodology emerged, which became known as the Glaserian approach and the Straussian approach. Researchers began to side with one or the other of these approaches, as each became more clearly articulated and the differences between the originators became irreconcilable (conceptually and methodologically).

Although there are many subtle differences between Glaserian and Straussian GTM, the main point of contention is what became known as the “emergence versus forcing debate.” Glaser (1992) suggested the analytic tools in Strauss’ approach “force” the data, and instead argued that theory emerges from the data. Dr. Juliet Corbin (who many consider the cocreator of Straussian GTM) and I argued the notion of emergence implies that “a theory is embedded in the data and it is the task of the analyst to discover what the theory is” (Corbin & Holt, 2005, p. 49). Arguably, the emergence perspective therefore follows the idea there is “one truth” in the data, whereas the Straussian view acknowledges there are multiple realities and multiple ways of interpreting a data set. In other words, Glaser adopted a more realist philosophical perspective, whereas Strauss’ approach is based on interactionism and pragmatism (Corbin & Strauss, 2015).

Glaser and Strauss (and Corbin) continued to develop their individual conceptualizations of GTM (e.g. Corbin & Strauss, 2008, 2015; Glaser, 1978, 1992; Strauss & Corbin, 1990, 1998). Over time they shifted their positions on certain points and added others. Meanwhile, a “second generation” of grounded theorists with their own unique perspectives emerged. For example, Bryant and Charmaz’s (2007) edited work titled the Handbook of Grounded Theory has 27 chapters from 34 contributors, who have all “studied, applied, taught, and/or written about” GTM (p. 11). The breadth of the GTM literature is a sign the methodology is healthy and growing.

As Bryant and Charmaz’s (2007) book demonstrated, many perspectives on GTM exist. Nonetheless, it is possible to identify three “main” versions that are used most widely; namely, the Glaserian approach, the Straussian approach, and Charmaz’s more recent constructivist approach. Again, there are subtle differences between each version of GTM. As mentioned above, Glaser defined GTM as a method of discovery and treated categories as emergent from the data. Strauss, while agreeing that theories should be traceable to the data, argued that researchers’ interaction with data leads to the construction of a grounded theory, rather than a theory emerging from the data. Charmaz (2006) took this “constructivist perspective” a step further. She argued researchers construct a theory through their interactions with the data and, while the theory will be grounded in the participants’ experiences, Charmaz suggested it is
impossible to create a theory entirely separate from the researcher. Needless to say, as a result of these conceptual differences there are also some notable differences among the Glaser, Strauss, and Charmaz approaches in terms of coding (i.e., specific data analysis techniques), which are discussed later, and detailed in Table 3.1.

**Why use GTM?**

GTM, like many other qualitative approaches, is not particularly well suited to testing existing theories (Holt, Knight, & Tamminen, 2012). The main reason to use GTM is to create new theories that explain some kind of social phenomena. Of course the selection of any methodology is partly based on the research question (which is underpinned and shaped by a coherent epistemology and ontology). The research question is the specific query to be addressed in the research that “sets the parameters of the project and suggests the methods to be used for data gathering and analysis” (Corbin & Strauss, 2015, p. 31). Research questions well suited to the use of GTM focus typically on discovering participants’ patterns of action/interaction with changes in conditions, either internal or external to the process itself. GTM methodology is particularly useful when there is little pre-existing theory available to explain a certain social process, where theories are underdeveloped for particular populations, or if existing theories are incomplete.

**Key features of a grounded theory study**

In the following section I list some of what I consider to be the common features of GTM, drawing from principles in the three main approaches described above. This list also draws from previously published works in the sport and exercise literature (Holt & Tamminen, 2010a, b; Holt et al., 2012; Hutchinson et al., 2011; Weed, 2009, 2010). As with any list, it is not definitive. The astute reader will note it is heavily influenced by my own background in the Straussian approach (Corbin & Holt, 2005; 2011). Nonetheless, I hope it provides a fair representation of the features typically associated with most variants of GTM. It also provides a guide for doing a good grounded theory study.

**Theoretical approach from the start.** Grounded theorists should “think theoretically” from the start of a study with the mindset that the goal of the research is to create a grounded theory. It should be clear that initial sampling was dictated by the research question and the goal of developing theory (Hutchinson et al., 2011). For example, in Hutchinson, Johnston, and Breckon’s (2013) study of long-term physical-activity behavior change, the research question was “How do people successfully change their PA [physical-activity] habits?” (p. 111). Their goal was to create a context-specific (i.e., substantive) and ecologically valid (i.e., grounded) explanatory model (i.e., theory) of successful processes of change in physical-activity behavior. This study reflected the principle of “thinking theoretically from the start,” because the authors clearly decided the best way to answer their research question was by building a theory, which led to the use of GTM. Hence, from the outset the study was designed to develop theory. This is an exemplary way to begin a GTM project.

**Iterative process.** Data analysis should begin as soon as the first data are collected and there should be interaction between data analysis and data collection (facilitated by theoretical sampling, which is discussed below) throughout the study. This is referred to as the iterative process of data collection and analysis (Corbin & Strauss, 2015). For example, in Holt, Tamminen, Black, Sehn, and Wall’s (2008) study of parental involvement in competitive youth soccer settings data were collected through two main phases of fieldwork,
allowing for the interaction of data collection and analysis throughout the research. As Holt et al. explained, “Data analysis commenced as soon as the first data were collected, and there was a constant interaction between data collection and analysis both within and between each phase of the study. This iterative process is a fundamental feature of grounded theory” (2008, p. 667; italics added).

Theoretical sampling. Theoretical sampling refers to sampling based on the concepts identified during initial data collection and analysis (Corbin & Strauss, 2008; Strauss & Corbin, 1998). Sampling is flexible as researchers seek new participants in order to help saturate key findings. Often, the initial sample can be sampled more purposefully; researchers may initially select a group to interview based on a set of criteria. Then, as the research study progresses, the requirement to sample new people or settings may become apparent as data analysis is used to identify new areas and issues. Researchers may have to go back to the field and broaden their sampling frame, interviewing new people who were not accounted for in the initial purposeful sampling criteria. Theoretical sampling both drives, and is driven by, the interaction of data collection and analysis.

Use of literature. The ways in which literature can be used has been debated among grounded theorists. A good grounded theory is rarely deductively generated based on an existing theory. Glaser (1992) actually argued against conducting a review of literature and using pre-existing theory early in the research process, because it could lead to researchers applying preconceived ideas to the data, rather than letting the data emerge for itself. Although Charmaz (2006) agreed with Glaser that researchers should avoid imposing pre-existing theory onto data, she argued it is impossible to approach research without pre-existing ideas. Researchers seldom commence a study with a tabula rasa (or “blank slate”), entering the field with no knowledge of the research area (Weed, 2009). Previous research and theory may inform the conceptual context and research questions, may be used at some point during the analysis, or even as late as the discussion/interpretation of the results (Sandelowski, 1993). From my own (Straussian) perspective, a literature review is a valuable and necessary tool to develop research questions, identify whether pre-existing theories exist, and provide justifications for a study (Corbin & Strauss, 2008). I also side with Dey (1999), who suggested GTM researchers should approach their studies with an open mind but not an empty mind. Indeed, from an epistemological perspective it is difficult to imagine theory-free knowledge. Even from a practical perspective it is difficult to imagine a researcher being able to set aside knowledge of the literature while conducting a study. I suggest the literature (i.e., theory and empirical research) should be used sensitively and not rigidly imposed on the data. To use the literature sensitively researchers must therefore have thorough knowledge of the literature in the area they wish to study. This knowledge also provides researchers with a foundation for ensuring their work produces unique insights rather than merely (or unintentionally) replicating previous work.

Coding. Coding refers to a range of analytic techniques used to ask questions of data to identify dimensions of concepts and categories (often referred to as themes in other forms of qualitative research) and relationships therein. By coding data, researchers move from interview transcripts (and other raw data) toward interpretation and the production of a grounded theory. There are some subtle differences in the way coding techniques are described in the three main approaches to GTM (see Table 3.1). The Glaserian (Glaser, 1978, 1992) approach involves substantive coding and theoretical coding. The Straussian approach (Corbin & Strauss, 2008, Strauss & Corbin, 1998) involves three stages of coding: open coding, axial coding, and theoretical integration. In their most recent work Corbin and Strauss (2015) updated these coding approaches to reflect a more flexible approach, and highlighted the potential use of
a range of other analytic tools (see pp. 85–105). Charmaz’s (2006) constructivist approach involves initial coding, focused coding, and theoretical integration. No matter which specific methodology is used, there are at least two shared principles in GTM coding. First, the early stages of coding involve “breaking down” data, whereas the latter stages of coding (i.e., theoretical coding/integration) involve reconstructing the data in theoretically meaningful ways. Second, although these coding techniques are often described in a linear sequence, in fact they are used in an iterative and cyclical manner throughout a study.

Table 3.1 Comparison of coding across different versions of grounded theory

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Two stages of coding to move from substantive codes to a grounded theory:</td>
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<tr>
<td>1. Substantive Coding: through a process of open coding (examination of all the pieces of data) researchers develop substantive codes, which specify the substance or meaning of each segment of data.</td>
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<tr>
<td>2. Theoretical Coding: theoretical codes are applied to the data to allow researchers to integrate substantive codes into a theory. Theoretical codes provide researchers with a means of ordering substantive codes within the social world. Glaser established a list of 18 coding families (groups of theoretical codes) that researchers may use to identify relationships between substantive codes, leading to the development of fully integrated theories.</td>
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<tr>
<td>Three stages of coding to move from description to theory:</td>
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<tr>
<td>1. Open Coding: described as a brainstorming approach, in which researchers fracture the data into its smallest units. Microanalysis, which is the detailed coding of each identified concept, is often a key feature of open coding.</td>
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<tr>
<td>2. Axial Coding: through this process concepts identified during open coding are related to each other. In their original texts Strauss and Corbin (1990, 1998) placed greater emphasis upon axial coding, encouraging researchers to consider their data in terms of conditions, actions, and consequences to identify relationships. In later texts (Corbin &amp; Strauss, 2015) less emphasis is placed on axial coding.</td>
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<tr>
<td>3. Theoretical Integration: the process of linking all the categories together and refining ideas. A core category is created, which is central to the final grounded theory.</td>
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<tr>
<td>At least two stages of coding, followed by theoretical integration:</td>
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<tr>
<td>1. Initial Coding: detailed examination of each fragment of data to identify actions. May include word-by-word, line-by-line or incident-to-incident coding.</td>
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<tr>
<td>2. Focused Coding: the process of selecting the most useful codes developed during initial coding and then testing them against further data. Coding of larger segments of data occurs. Through this process codes become more directed and selective. This is a more conceptual step that leads toward theoretical integration.</td>
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<tr>
<td>3. Theoretical Integration: a process through which categories identified in focused coding are integrated. Specific relationships between categories are identified. Charmaz encouraged the use of Glaser’s 18 coding families if they fit the data and the previous analysis.</td>
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</table>

Note: Corbin and Strauss (2015) updated their discussion of coding to highlight a range of analytic tools that can be used in the coding process.

Source: Adapted from Holt, Knight, and Tamminen (2012).
if conducting a study that takes three months using the Straussian approach, one does not spend the first month doing open coding, the second month doing axial coding, and the last month doing theoretical integration. Open coding usually comes first, but all three techniques are used iteratively and cyclically from the moment data analysis begins (which, of course, is also the moment data collection begins).

**Constant comparison.** Constant comparison involves comparing incident with incident in order to classify data. In the words of Corbin and Strauss, constant comparison is “the analytic process of comparing difference pieces of data against each other for similarities and differences” (2015, p. 85). In addition to comparing data with data, data can also be compared with concepts, comparisons can be made between concepts, and with existing theory (Holt & Tamminen, 2010a). By making these comparisons the researcher engages with data in “deep” cognitive ways and works toward the construction of a grounded theory.

**Theoretical saturation.** Theoretical saturation, a term unique to GTM, is slightly different from the term “data saturation” (which is a term widely used in qualitative research more generally). The differences between these terms are subtle but nonetheless important. Data saturation is taken to mean data should be collected until no new data are generated (O’Reilly & Parker, 2012). In grounded theory, the notion of theoretical saturation does not refer to the point in a research project when no new data are generated, but rather when categories and concepts are fully accounted for (saturated), and relationships between categories and concepts are explained (Green & Thorogood, 2004). Theoretical saturation is “a matter of reaching the point in the research where collecting new data seems counterproductive; the ‘new’ that is uncovered does not add that much more to the *explanation* at this time” (Strauss & Corbin, 1998, p. 136; italics added). In other words, with theoretical saturation, there are no more emergent patterns in the theory (i.e., the explanation), as opposed to no new data per se. Arguably there will always be new data, but with theoretical saturation those new data do not substantially add to or change the theory being generated.

Theoretical saturation remains a relative concept – a theory is never completely and irrefutably saturated. Rather, researchers should strive to reach an *adequate level* of saturation such that their concepts, categories, and the relationships between these concepts and categories are clearly articulated. Theoretical saturation is therefore a judgment made by the researcher during the process of conducting a study. It is absolutely essential there is interaction between data collection and analysis, because otherwise the researcher cannot make informed judgments about the level of saturation. As such, theoretical saturation is also a principle used to determine a sample size (i.e., when adequate theoretical saturation is obtained the sample size is sufficient).

Whereas theoretical saturation is a vitally important principle, I have learned it is necessary to use additional information to provide sample-size estimates prior to beginning the research (e.g., for grant applications, thesis/dissertation proposals, or research ethics board applications). I use three sources of information to provide a convincing justification for sample-size estimates. First, I explain that the final judgment on sample size will be determined using the principle of theoretical saturation. Second, I estimate a sample size by using the published literature. For instance, if there are similar types of GTM studies that involved 20 and 30 participants, respectively, then I can reasonably estimate my study will require about 25 participants (of course, issues like the level of participant engagement, length, and number of interviews also need to be factored in). Finally, some authors have provided guidelines for sample size in GTM studies (e.g., Mason, 2010; Morse, 2000). Combined, the principle of theoretical saturation, the size and scope of previous similar studies, and published guidelines can create a compelling argument for sample-size estimates.
Potential pitfalls when using GTM

In the introduction I mentioned a major criticism of the use of GTM in sport and exercise has been the cherry-picking of some techniques rather than embracing GTM as a total methodology (Weed, 2009). In other words, some researchers have used a couple of techniques – most often coding techniques – and mistakenly labeled their studies as grounded theories. In Holt and Tamminen’s (2010a) review of GTM research in sport and exercise psychology, of the 17 studies they reviewed only 9 presented some kind of grounded theory. In other cases, researchers used techniques from GTM to produce a list of themes and categories rather than a theory. If the point of using GTM is to develop theory, then one would expect a theory to be produced. Thus, it would be wise to avoid the pitfall of cherry-picking a few techniques and rather, no matter which variant of GTM is being used, embrace it as a total methodology. On a related note, it is also wise to avoid trying to somehow amalgamate the different variants of GTM in a particular study because of the important philosophical, conceptual, and procedural differences between the variants.

Another potential pitfall, which has not been discussed extensively in the sport and exercise literature, concerns the use of diagrams and figures to represent the final outcomes of GTM (i.e., the theories themselves). A common mistake I have come across (most often when reviewing papers for journals – many of which sadly never make it through to publication) is the presentation of incredibly complex diagrams and figures as the grounded theory product/output. More often than not these diagrams and figures include a vast number of unidirectional and bidirectional arrows. Presumably arrows are intended to depict some kind of relationship between concepts. However, I am frequently disappointed by the fact that researchers fail to even discuss what the arrows might mean on their diagrams and figures. This is a major oversight because part of the analysis in GTM involves identifying statements of relationships between concepts. These statements of relationships should be as well saturated as the concepts and categories they are intended to link. I offer two pieces of advice on this issue. First, if you are going to include arrows, the nature of the relationships must be explained (and, you can document your emerging views on statements of relationships during the coding process by writing memos throughout the analysis). Second, it would be wise to produce parsimonious models with a relatively limited number of arrows/relationships. The more arrows you have, the more difficulties you will face in trying to saturate and explain them.

Drawing further on my personal experience with GTM, another pitfall I have learned to avoid is thinking too descriptively. Over the years I have discussed the evolution of my thinking on this topic in a couple of book chapters (Corbin & Holt, 2005, 2011). It all stems back to my first attempt at GTM research, which was a study of talent development in soccer (Holt & Dunn, 2004). In the early days of this research I thought about the study in very descriptive terms. I concentrated on fully expanding concepts and categories, and paid less attention to how these concepts and categories may be related (the relationships being the key element of a grounded theory of course). In fact, during my PhD, it was only when one of my supervisors (Dr. Juliet Corbin) commented on my “descriptive obsession” that I understood the need to move away from describing the data and toward a more theoretical approach. It was an “aha” moment when I realized the entire point of my research enterprise was to develop a theory, not to write wonderfully detailed accounts of concepts and categories. Of course, researchers need detailed concepts and categories, but not at the expense of theoretical development. Grounded theorists must think theoretically from the very moment they conceptualize and plan their studies.
Armchair walkthrough

A useful tool for planning qualitative studies is the “armchair walkthrough.” Originally presented by Morse (1999) and revised by Mayan (2009), the armchair walkthrough has been adapted for GTM studies (Holt & Tamminen, 2010b). An overview of the process of the armchair walkthrough is provided in Table 3.2. The armchair walkthrough is based on the principle of methodological coherence, which means “congruence between your epistemological and ontological viewpoint, your theoretical position/perspective, your research question, and so on” (Mayan, 2009, p. 13). The armchair walkthrough is a heuristic intended to provide a planning framework for the key decisions a researcher may take in planning a GTM study. As Holt and Tamminen (2010b) noted, two caveats must be considered when completing the armchair walkthrough provided in Table 3.2. First, the items are presented in a linear manner, but decisions about methodological coherence are made in a more cyclical, interactive way. For instance, decisions about an appropriate number of participants may change as researchers seek a sample size necessary to achieve theoretical saturation. Second, the armchair walkthrough is not a prescriptive formula, but rather a guide to “help researchers make important research decisions as they plan their grounded theory studies” (Holt & Tamminen, 2010b, p. 420).

Table 3.2 A heuristic for planning methodologically coherent grounded theory studies

<table>
<thead>
<tr>
<th>Research Decisions</th>
<th>Issues to Consider</th>
<th>Suggested Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontology, Epistemology</td>
<td>Select philosophical perspective consistent with variant of GTM.</td>
<td>Weed (2009), Weed (2010)</td>
</tr>
<tr>
<td>Research Question</td>
<td>Usually focus on examining some form of social process in context, with the goal of</td>
<td>Refer to original GTM methodological texts.</td>
</tr>
<tr>
<td></td>
<td>creating a grounded theory. GTM is useful for areas/issues where adequate theorizing does not exist.</td>
<td></td>
</tr>
<tr>
<td>Selection of GTM Variant</td>
<td>Select variant of GTM consistent with philosophical perspective.</td>
<td>Bryant and Charmaz (2007)</td>
</tr>
<tr>
<td>Participants</td>
<td>Identify appropriate population and settings to be sampled. Purposeful sampling may be established to define initial sample.</td>
<td>Refer to original GTM methodological texts.</td>
</tr>
<tr>
<td>Sample Size</td>
<td>Use principle of theoretical saturation, make estimates based on previous studies, use guidelines in literature.</td>
<td>Mason (2010), Morse (2000)</td>
</tr>
<tr>
<td>Planning for Interaction of Data Collection and Analysis</td>
<td>Engage in analysis as soon as first data are collected.</td>
<td>Bruce (2007)</td>
</tr>
<tr>
<td>Data-Collection Methods</td>
<td>Consider interviews, observations, documentary analysis (specific decisions will be based on variant of GTM selected).</td>
<td>Refer to original GTM methodological texts.</td>
</tr>
<tr>
<td>Data-Analysis Methods</td>
<td>Use coding techniques and other theory-generating techniques based on variant of GTM selected.</td>
<td>Refer to original GTM methodological texts.</td>
</tr>
<tr>
<td>Final Product</td>
<td>Know what type of theory will be created (e.g., substantive or more formal). Diagram possible ‘final’ theories.</td>
<td>Refer to original GTM methodological texts.</td>
</tr>
</tbody>
</table>

Source: Adapted from Holt and Tamminen (2010b).
Additional tips for planning GTM studies

Building from the armchair walkthrough and incorporating the contributions of Bruce (2007), here I provide some further suggestions for planning GTM studies. These suggestions are far less conceptual and deal with practical issues. They are suggestions that may help to create ‘optimal conditions’ for conducting GTM studies (Holt & Tamminen, 2010b). Again, like the armchair walkthrough, these are not fixed and prescriptive guidelines, but rather a flexible list that may be useful for students and supervisors alike in the early stages of research design.

Prior to engaging in research (often during the proposal writing, grant writing, or research-design planning stage, depending on the nature of the research), researchers face a number of decisions. Therefore, I first detail some “pre-research” decisions before going on to consider some practical factors to consider during the process of conducting the study.

Pre-research considerations

Ask a research question suited for the use of a GTM approach. The choice of methodology is largely based on the research question. Hence, it stands to reason that the research question(s) posed should logically lead to the choice of a GTM. Questions well suited to the use of GTM include “How do people successfully change their PA [physical activity] habits?” (Hutchinson et al., 2013, p. 111) and “How do talented children become professional adult athletes?” (Holt & Dunn, 2004, p. 199). Note that both these questions refer to some kind of process, and GTM can be quite useful for helping to unravel different components of a process and how they may be related.

Obtain training. Learning GTM is a craft that takes time and thoughtful supervision to develop. Morse (1994) described “the menace of minus mentoring,” which is when researchers learn methods only from books and end up muddling them. I have found workshops to be an invaluable resource for learning more about research methodologies. These are offered on a regular basis at conferences and in special seminars around the world. A practical tip, therefore, is to attend these workshops. In the ideal world one would attend a workshop based on the variant of GTM to be used, presented by one of the world’s leading experts in that variant. This may be unrealistic but, fortunately, with an increasing number of researchers who study, apply, teach, or write about GTM (Bryant & Charmaz, 2007) there are many skilled individuals who frequently present workshops. It is a good idea to take one to begin the journey of developing the craft of practicing GTM research.

Select a variant of GTM. I have mentioned this before, but feel the need to stress the issue. From my perspective, researchers should select the variant of GTM they are going to use and stick with it. Selecting a variant that fits with one’s philosophical perspective is a good idea. To be blunt, cherry-picking or taking a “pick and mix” approach (Weed, 2009) is not a good idea.

Consider existing knowledge. As research questions are formulated the broad area of study comes into focus. An important issue to consider is whether there is a great deal of existing theory in the area of study. If there is extensive prior theoretical work, this is red flag to a grounded theorist. Remember that the entire point of using GTM is to create theory. If extensive theory already exists, there is not going to be much room for a new grounded theory. Take, for example, the goal orientations literature in sport psychology. This has been studied extensively for over 30 years, with an exceptionally strong theoretical basis. Researchers may not have a great deal of success creating a new grounded theory of goal orientations. On the
other hand, relevant issues that have little theoretical foundation are often ideally suited for the use of GTM. It is wise to ask research questions in areas that are relatively underdeveloped theoretically.

**During-research considerations**

**Interaction between data collection and analysis, driven by theoretical sample, must occur.** One of the most critical components of a GTM is the interaction between data collection and analysis. This is not to say other qualitative approaches do not involve interaction between data collection and analysis (e.g., most forms of ethnography require researchers to be engaged in data analysis while they are in the field). In GTM interaction of data collection and analysis is driven by, and drives, theoretical sampling, all with the end goal of developing theory in mind. On a purely anecdotal level I have found that data collection and analysis in GTM takes about twice as long as a graduate student thinks it will take!

**Remember to go back to your research ethics board.** When I submit a proposal for a GTM study to our institutional research ethics board (see also Chapter 24), I make an educated guess about the sample size and who I need to sample. For instance, for a (hypothetical) study of parenting in youth sport, I know I will have to speak with parents and it is quite likely I will also have to speak with their children to gain additional perspectives. Thus, in submitting ethics, I would clearly identify both samples and include interview guides that I will use for parents and children. As a study progresses I may realize that additional theoretical sampling is needed. Perhaps I need to speak to coaches, league administrators, or change my initial sampling criteria to recruit different groups of parents (e.g., those whose children have dropped out of sport). All these changes require amendments to research ethics board approvals. Hence, it is quite typical – and usually necessary – to go back to a research ethics board, sometimes on several occasions, during the process of conducting a GTM study.

**Conclusion**

The question I posed at the beginning of this chapter was “What makes a grounded theory a grounded theory?” The interaction of data collection and analysis, driving and driven by theoretical sampling, alongside a range of data analysis techniques are all hallmarks of GTM. Just including these techniques, in my opinion, is not enough for a “true” GTM. The production of a grounded theory is really what makes grounded theory a grounded theory. The techniques, thoughtfully applied, should enable the researcher to produce the grounded theory. In this sense, as I mentioned in the introduction, grounded theory is both the process and the product.

As my own career has developed, so too has my understanding of GTM. Certainly not all the studies in which I mentioned GTM would fit my (current) “purist” approach to using the methodology as a total methodology. As I look back at some of my own studies I cringe at the times when I dropped in the occasional reference to GTM when I was not using it as a total methodology. But, as I have argued previously, as thoughtful and self-reflective researchers we must “readily acknowledge the mistakes of the past for fear of simply repeating them. This may mean putting egos aside for a moment for the good of the discipline” (Holt & Tamminen, 2010b, p. 422). My hope is that this chapter enables researchers to understand and let go of mistakes of the past and set new standards for GTM research in sport and exercise.
Grounded theory

Note

1 For more complete information on the history and variations in GTM see Bryant and Charmaz (2007).

References


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