









Constructivist Grounded Theory: characteristics and operational aspects for nursing research

Teoria Fundamentada Construtivista: características e aspectos operacionais para a pesquisa em enfermagem

Teoría Fundamentada Constructivista: características y aspectos operacionales para investigación en enfermería

How to cite this article:

Metelski FK, Santos JLG, Cechine-Peiter C, Fabrizzio GC, Schmitt MD, Heilemann M. Constructivist Grounded Theory: characteristics and operational aspects for nursing research. Rev Esc Enferm USP. 2021;55:e03776. <https://doi.org/10.1590/S1980-220X2020051103776>

-  **Fernanda Karla Metelski^{1,2}**
-  **José Luís Guedes dos Santos¹**
-  **Caroline Cechinel-Peiter¹**
-  **Greici Capellari Fabrizzio¹**
-  **Márcia Danieli Schmitt¹**
-  **MarySue Heilemann³**

¹ Universidade Federal de Santa Catarina, Programa de Pós-Graduação em Enfermagem, Florianópolis, SC, Brazil.

² Universidade Federal de Santa Catarina, Departamento de Enfermagem, Chapecó, SC, Brazil.

³ University of California, UCLA School of Nursing, Los Angeles, CA, United States.

ABSTRACT

This is a theoretical analysis of Constructivist Grounded Theory and its application in nursing research. It is organized in three topics: Characteristics of Grounded Theory; Philosophical basis of the constructivist strand; and Constructivist Grounded Theory data analysis particularities. The unique characteristics of Grounded Theory that set it apart from other approaches are simultaneous data collection and analyses, theoretical sampling, constant comparison at each stage of analysis, development of memos for reflexive and comparative analysis, and a coding system with an initial and a focused stage that is flexible and guides the analytical process of building a theory. Before embarking on a Constructivist Grounded Theory study, the literature is reviewed to hone the research question. The philosophical assumptions of symbolic interactionism and social constructivism influence the entire process. Constructivist Grounded Theory emphasizes the construction and interpretation of data recognizing social contexts, interaction, the point of view of participants, and their understandings according to the investigation time, place and situation.

DESCRIPTORS

Grounded Theory; Research; Qualitative Research; Methods; Nursing Methodology Research.

Corresponding author:

José Luís Guedes dos Santos
Campus Reitor João David Ferreira
Lima. Bairro Trindade
CEP 88040-900 – Florianópolis, SC, Brazil
santosjlg29@gmail.com

Received: 11/19/2020
Approved: 02/15/2021

INTRODUCTION

As an alternative to hypothetical-deductive research, Grounded Theory methodology (GTM) emerged in the United States in the early 1960s proposing the development of an explanatory theory. The GTM was created by the sociologists Barney Glaser and Anselm Strauss during a study examining the experience of terminally ill patients. While doing this investigation, they questioned the use of the scientific method of verification and developed an innovative way to organize and analyze qualitative data with the goal of developing theories. As a result of Glaser and Strauss' work, they described their method in more details in the book entitled *The Discovery of Grounded Theory: Strategies for Qualitative Research*, which laid the foundation of GTM in 1967⁽¹⁻²⁾.

GTM challenges the view of quantitative methodology as the only valid and impartial way of understanding reality. Glaser and Strauss contested the belief that qualitative research lacked rigor by creating a detailed methodology for data collection and analysis that led to the generation of a theory. Despite their success, the two authors subsequently developed divergent points of view about the application of Grounded Theory and started to work independently. Each one followed a specific line of work, giving rise to different strands or perspectives of GTM⁽¹⁻²⁾.

Glaser's approach to the methodology is the strand known as Glaserian⁽³⁾. Glaser studied at Columbia University, which had a strong positivist tradition; his work gave rise to what is called objectivist GT. With this perspective, the results of data analyses are considered to be truths that the researcher discovers; however, without consideration of the processes of production of those data. That is, with objectivist GT, the researcher's social context and influence are not considered consequential, nor is the interaction between the researcher and the research participants⁽⁴⁾. Theories developed using objectivist GT are expected to predict future phenomena and, therefore, to emerge as truths that are discovered while analyzing raw data⁽³⁾.

Strauss, in partnership with his former student Juliet Corbin, incorporated data analysis techniques, giving rise to the Straussian or relativistic strand of GT. Strauss had studied at the University of Chicago, where he learned about fieldwork with Chicago School Sociology mentors. Having been influenced by George Herbert Mead through Herbert Blumer, Strauss drew upon pragmatism and symbolic interactionism to refine his strand of GT. For Strauss, researchers do fieldwork and also engage in reflection and layers of analysis while specifically focusing on actions and processes in the data⁽⁵⁾. This enables the development of a theory⁽³⁾. For Strauss, people are active agents and not passive victims of greater social forces in their world; also, the use of language influences subjective social meanings that emerge through action and, for these reasons, researchers need to focus on language and action in data^(4,6).

In the 2000s, sociologist Kathleen Charmaz proposed the constructivist strand of GT⁽³⁾. She was a professor of Sociology at Sonoma State University, California, United States. Early in her academic career, she participated in seminars and workshops given by Barney Glaser and with her doctoral advisor in Sociology, Anselm Strauss, at the University of California, San Francisco, United States⁽⁵⁾.

Later, as an independent researcher, Charmaz dedicated herself to the development of GT from the perspective of constructivism, sometimes called Constructivist Grounded Theory (CGT). This strand of GT is used to produce a theory that is considered an interpretive portrait of reality. In this sense, CGT proposes that a theory is developed by the researcher based on data that was co-constructed with participants, usually via interviews. This means, according to Charmaz, that interview data are influenced by both the researcher and the participant, particularly because they are produced during an interview, since the researcher chooses which questions to ask and interacts with the participant as they respond to questions. Subsequently, the analysis of data is again influenced by the researcher based on their perspective as human beings who are engaged with the data. With CGT, the researcher seeks to understand meanings attributed by participants to the event or phenomenon being investigated, but they also take into account how the relationship between them and the participant influences the very data that they collected. Specific emphasis is on taking action to reduce biases the researcher brings to the process. The book *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis* by Charmaz, which marks the beginning of the constructivist dimension, was published in 2006 and had a second edition in 2014. The book was released in Portuguese in 2009 in Brazil⁽⁴⁻⁵⁾.

Thus, the CGT perspective proposed by Charmaz is part of the so-called 2nd generation of GT, which also includes other contemporary strands of the method. The main outcome of a CGT study is a theory that is developed from the researcher's interaction with the co-created data and the researcher's interpretation of the experiences and points of view of the study participants about what they do, feel, think, and experience in a given context. CGT allows more flexibility in the explanation of the studied processes⁽¹⁻²⁾. GTM was expanded by Charmaz because of her analytic approach to GT, self-critique in research, and dedication to mentoring, both in person and through her books published in the late 2000s, which are considered to be her greatest legacy⁽⁷⁾.

The open-ended aspect of the constructivist strand of GT has stimulated its use in several areas of knowledge development internationally in recent years, including Nursing Science. In Brazil, although there is an increase in the use of the constructivist strand, the use of the Straussian approach to GT still predominates in nursing research⁽⁸⁻¹¹⁾. In addition, national studies on theoretical and methodological aspects of GT have not specifically discussed the particularities of

CGT^(8-9,12-13). Therefore, there is a need for a theoretical analysis of the characteristics and operational aspects of the constructivist strand of GT in nursing research, especially for graduate students and new researchers interested in using the methodology.

The current analysis describes the characteristics and operational aspects of CGT and its application in nursing research.

METHOD

This critical analysis is based on a problematization of the theme of GT and includes an interpretative reading of related references and conceptualizations of GT therein. Three topics are presented: (1) Characteristics of Grounded Theory; (2) Philosophical basis of the Constructivist Grounded Theory; and (3) Constructivist Grounded Theory particularities.

CHARACTERISTICS OF GROUNDED THEORY

Some common characteristics that are found in each of GT's main strands are considered central to the use of the method: theoretical sampling, simultaneous data collection, and analysis, including the constant comparison of data, use of memoranda, and theoretical development⁽³⁻⁴⁾.

Theoretical sampling is used when the researcher has developed at least one tentative analytic category. The goal of theoretical sampling is not to gain the ability to represent an entire population or to generalize results⁽⁴⁾. Rather, the goal of theoretical sampling is to provide the researcher with additional data needed to more fully develop the properties of a particular category. The lack of robust details indicates the need for gathering new data specifically to strengthen and more fully describe the properties of a particular category^(4,14-15). To clarify, after the researcher creates a Semi-Structured Interview Guide, they will engage in simultaneous data collection and analysis. They will do line by line coding and follow it with written memos about what they learned about the phenomenon thus far. The coding of the first interview transcript and subsequent memos will influence in how the researcher will use their interview guide during the second interview. This will be repeated until the phase of focused coding begins⁽⁴⁾. It is during the analysis of data that has been grouped by focused codes that the researcher will realize if theoretical sampling is needed.

It is important to note that the concept of theoretical sampling does not differ according to the different perspectives of GT. However, in the constructivist strand, Charmaz highlights the importance of theoretical abstraction in this process, which allows the researcher to identify weaknesses in the description of the properties of the developing categories; a more in-depth analysis may be needed to more fully describe the properties⁽¹⁶⁾. Through analysis and abstraction, data are elevated from codes to categories, and it is through this process that the researcher develops the theory⁽¹⁷⁾.

Data collection is done simultaneously with data analysis. Constant comparison is a form of analysis consisting of comparing data with data, codes with codes, and incidents with incidents to build categories and articulate their properties^(4,15,18). This analytic comparative work is done throughout all stages of data collection, starting with the first interview transcript. With this technique, the researcher gains insight into what they are identifying in the data. Through analytic memos, the researcher will question the data, critique the codes, and identify which theoretical category the data represent. This process will allow them to bring their analytic work to a more abstract level. For example, through constant comparison, each developing property is scrutinized and rigorously analyzed⁽⁴⁾. Theoretical comparisons may also be done whenever the researcher is overloaded with details and needs to gain distance in order to stimulate their thinking about properties and their conceptual dimensions⁽⁶⁾.

Memoranda are informal analytical records made up of the researcher's reflections, ideas, and any connections they make based on codes, including how they relate to each other. Researchers doing CGT write memos before they begin and while they are collecting data and throughout the entire data analysis and writing phases. The creative, analytic, and reflexive work done through memos will help to identify theoretical categories and their properties. Ultimately, memos help researchers develop the grounded theory. Memos contain the researcher's understanding of their analysis as well as the more abstract and conceptual descriptions of each category⁽⁴⁾.

Memos are also used for methodological annotations to facilitate the understanding of the research process, as well as the phenomenon under study⁽¹⁸⁾. These records are so significant that they assist in conducting the research from the beginning until the last phase of GT when categories are integrated into the formation of the theory⁽⁴⁾. The construction of memoranda can be handwritten, typed, or inserted into data management software (the ones that organize data), depending on the researcher's preference and organization.

Theories can be substantive or formal depending on the extent and reach of the study. In a situation-specific study, a substantive theory is developed that can be applied to a certain field, and for this, the theory has a localized range. However, when findings are more robust in a more expansive research study with a wider scope, a formal theory can be developed^(4,14-15). Substantive theories form the basis for the development of a formal theory; however, additional future studies are needed to develop them further^(4,14).

PHILOSOPHICAL BASIS OF CONSTRUCTIVIST GT

As already noted, CGT assumes that data are co-constructed through the researcher-participant interaction. In addition, analyses and the products of analyses (categories, their properties, and the relationships between categories) are developed through the interaction of the

researcher with the data. CGT assumes that the researcher is not neutral, since they are human beings with their own way of using language, their own opinions, and values. However, the researcher shall do reflexive work to reduce the influence of their biases on the participant and on the co-construction of the data, as well as on their analysis of the data. Social constructionism is a philosophical stance that assumes that all people take up reality as they perceive it; therefore, it is a social construction, while the rigors of the methodology of GT, including CGT, are intended to guide the researcher to do the reflexive and analytic work necessary to prioritize the perspective of the participants as much as possible^(3-4,15,19). CGT specifically emphasizes that any research done by human beings will inevitably present an interpretive portrait of the world. Thus, the constructivist strand differs from the original version of GT by Glaser and Strauss, which claimed that theory is discovered in the data, and when located, it is not influenced by the researcher's involvement^(4,20). For these reasons, CGT can be considered an innovation of GT.

The philosophical underpinnings of CGT come from Symbolic Interactionism (SI) and social constructivism. George Herbert Mead developed SI, an abstract theory about interaction that was refined by Herbert Blumer at the University of Chicago. SI assumes that interaction is inherently dynamic and that all human beings engage in an interpretive process in daily life. Therefore, SI addresses how people create, interpret, endorse or change meanings based on actions and interactions experienced in their daily lives⁽²¹⁾. In SI, all people are considered active participants engaged in the world in which they live; it is through interaction with other people and with themselves (called mind-action) that people make sense of the world⁽²²⁾.

CGT is situated in the interpretative tradition wherein researchers assume that data and analyses are social constructions, and that participants and researchers alike construct meanings. Therefore, it is assumed that any theory developed through research is an interpretation that reflects not only the participants' experiences but also the researcher's perception of the phenomenon. A CGT study is influenced by how, when and to what extent the experience described in a theory integrates broader postures, situations, and relationships⁽⁴⁾. It provides methodology for conceptualizing the actions of participants and processes of their lived experiences⁽⁵⁾.

The concepts of SI are compatible with constructivism and are helpful for aiding the researcher as they reflect upon their perceptions of the world. SI assumes that individuals and groups interact and, through these interactions, meaning emerges. For the researcher, the abstract concepts of SI often remain in the background of their awareness until they become relevant during coding or analysis of data. SI concepts are abstract tools that become useful for analyzing social processes in data because they emphasize interaction as a crucial form of social action⁽²³⁾.

In this sense, SI holds that people are social beings who are engaged in interaction with others, themselves and their

environment. Through these interactions, including communication with others and constant reflection on their own actions, meaning emerges and contributes to how the person perceives reality^(4,24). SI has three key principles: the first is that people act according to the meaning that a given situation has for them; the second principle indicates that meaning is not inherent in the fact, but is attributed through continuous social interaction⁽²⁵⁾; and finally, these attributed meanings are not watertight but can be redefined through reflection and interpretative processes^(14,24). Human experience and behavior are complex and unstable concepts, guided by symbols and meanings that are based on interactions with the environment and within itself⁽²⁴⁾.

The underpinnings of constructivism and SI as the philosophical foundations of GT influence how researchers are oriented toward the notion of reality, including what and how it can be known. However, it is crucial to clarify that SI is not a part of a grounded theory that a researcher will develop; rather, it informs the researcher and enhances their ability to use the method⁽²⁶⁾.

Many CGT studies do not use a philosophical framework, but when they do, SI prevails, although it is not the only one that can influence a researcher using CGT^(18,27). In Brazil, another reference commonly used is the Complexity Paradigm, whose leading proponent is Edgar Morin. This framework is useful for studies of processes because knowledge and human relations are not solely linear. Rather, they are complex, multifaceted, and constantly under construction⁽¹¹⁾.

CONSTRUCTIVIST GROUNDED THEORY PARTICULARITIES

LITERATURE USE: IN ALL STAGES AND COMPILED AT THE END

Reviewing the literature is important before engaging in a CGT study. Knowing the state of the science in relation to a phenomenon allows situating the specific research question for the particular study being done. The literature can serve to defend the researcher's position. It allows the reader to identify the reasons why the study is being done. A review of the literature before a CGT study involves published research and other theoretical frameworks^(4,27).

After this compilation is performed, the literature is not typically scrutinized again until after data analysis, in order not to interfere with the researcher's creativity⁽³⁾. Following data analysis, a critique of published work will help position the findings of the CGT study in relation to extant knowledge. It will allow for comparing results from other studies and other theories. This may help clarify the content of the theoretical categories developed, and demonstrate how the theory adds to or goes beyond existing knowledge^(4,20).

In the classic GT approach, the bibliographic review is postponed in an effort to prevent preconceived ideas from influencing the researchers' thinking or prevent the tendency to adjust concepts that already exist within participants'

narratives. In CGT, this posture is considered an excess, since everyone has previous knowledge that undeniably influences the interpretation of data. In addition, existing theories sensitize researchers, or provide theoretical sensitivity, which refers to the ability that the researcher has to recognize variations in the data, to have insights and interpret them, identifying data relevant to the study, and balancing science and creativity^(4,18).

With CGT, the use of the published literature contributes to the argumentation and credibility of the work. While an early review of the literature may have prepared the researcher and helped them define the focus of their work through key studies and the development of the argument that led to the research question, it may be very late in the process or after data analysis is complete that the differentiation of this GT from previous theories is realized⁽⁴⁾.

CODING SYSTEM: OPEN FOR THEORY CONSTRUCTION

Coding is an important early first step in data analysis, which helps the researcher focus on the action and processes in the data and on the meanings that each participant ascribes to entities. Through coding, the researcher seeks a more abstract understanding of the data to articulate what is happening in the time, place and situation of the participant⁽⁴⁾. Data segments are labeled and later are sorted into clusters so they can be categorized to produce an explanatory interpretation of the phenomenon; Charmaz held that “it is the fundamental link between data collection and the development of an emerging theory to explain these data”⁽⁴⁾. Codes created by researchers provide manageable descriptions of lived experience expressed in a short phrase of words (using the gerund form of verbs). From this, researchers can develop and then weave theoretical statements that respect each participant’s context as analyses continue⁽⁴⁾.

The CGT coding system involves at least two hierarchical steps: 1) initial coding and 2) focused coding⁽²¹⁾. Initial coding allows the researcher to become more familiar with the data at a granular level. In this stage, coding involves each word, line or segment of data; researchers focus on the data and on the reality experienced by the research participant^(4,15). Therefore, it is suggested that codes are drawn up, staying close to the data, and focusing on what is happening for the participant in each segment. *In vivo* coding⁽⁴⁾ is a particular kind of initial coding that maintains the participants’ own words, usually because the exact phrase stated by a participant succinctly expresses a great deal of meaning. These codes identify both the explicit statements made by a participant and they draw attention to implicit concerns. Both of these may be explored more deeply in memoranda. The researcher shall be open to all theoretical directions suggested by the reading of the data. Thus, codes are considered to be provisional. They can be reformulated to grasp more fully, or to condense the meanings and actions of the participants into more concise language⁽⁴⁾.

Focused coding allows identifying tentative categories, and summarizing and explaining larger segments of data. Focused coding is grounded in data but involves clustering initial codes and ideas. In the stage of focused coding, the most significant or frequent occurring initial codes are identified and then used to group the initial codes into more focused groups. To do this, the initial codes are compared to enable a greater analytical understanding of how data can be grouped; this will lead to the ability to explain larger data segments^(4,15).

The initial codes that the researcher identifies as most frequently showing up in data coding and those that are the most salient are selected by the researcher as focused codes. Then, these codes are used to mark the entire data set and the coded data are sorted into groups based on a particular focused code. At this time, the comparison of codes with codes, and data with data, within each focused code group is once again crucial in analysis. Various analytic techniques are used to dig into each focused code group to identify features that stand out and hold greater meaning. The writing of memoranda continues to be especially important during the focused coding stage. Analysis within each focused code group will likely inspire multiple memos that document and track analytic work. The researcher can use memoranda to document how they followed leads to understand, for example, a sequence that became evident in the data, or to identify patterns in the data, or to explore hunches about the answer to the question “what is happening here?” by examining data within a focused code group from multiple participants^(4,21).

Theoretical coding occurs late in the focused coding stage after tentative categories and their properties have been developed. Theoretical coding can bring clarity to focused codes and can help the researcher tell a more coherent analytic story through their results⁽⁴⁾. However, theoretical coding is not the same as theoretical sampling (i.e., collecting new data to bring needed detail to a property of a category to reach saturation). Theoretical coding involves the application of various analytic schemes to raise the level of abstraction and move the analytic products closer to the formation of a theory. This will bring coherence as it helps the researcher identify the relationships between categories, or between fully developed concepts, in a grounded theory⁽⁴⁾.

Coding in CGT is an open system. That is, codes are created during data analysis. They are both the product of analysis and they make up the process of analysis as well. The active interaction of the researcher with the data results in the development of codes that are then analyzed through comparison. Thus, in CGT, preconceived codes are not used⁽³⁻⁴⁾. Although codes are informed by empirical reality, it is the researcher who chooses the words that make up the codes. While the CGT researcher seeks to understand participants’ experiences and perceptions through coding, one shall never forget that codes are created by the researcher and are influenced by their perspective⁽⁴⁾.

Process coding is the name given to coding that is done using the gerund form of verbs (nominal form of the verb associated with the suffix -ing). Process coding is especially important in CGT because the SI assumption is that every participant is an actor, not a victim, of their everyday life⁽²⁵⁾. Codes are words that describe the actions of a person, for example: seeking, carrying out, feeling, blaming, hoping, getting, denying, struggling, etc. The purpose of process coding is to reduce the tendency to project an interpretation too early in the process of analysis. Furthermore, it is very

easy for researchers, as human beings, to project meaning “onto” a participant through a code applied to data without careful attention to the participant, an actor, who engages in the world in the context of their own lived experience. With process coding, the researcher gains a tool that assists in the development of theoretical sensitivity as the focus is on what is happening in the world of the participant, for them, with them, and about them in each and every line of data⁽⁴⁾. Chart 1 summarizes the coding steps.

Chart 1 – Summary of the Constructive GT coding steps.

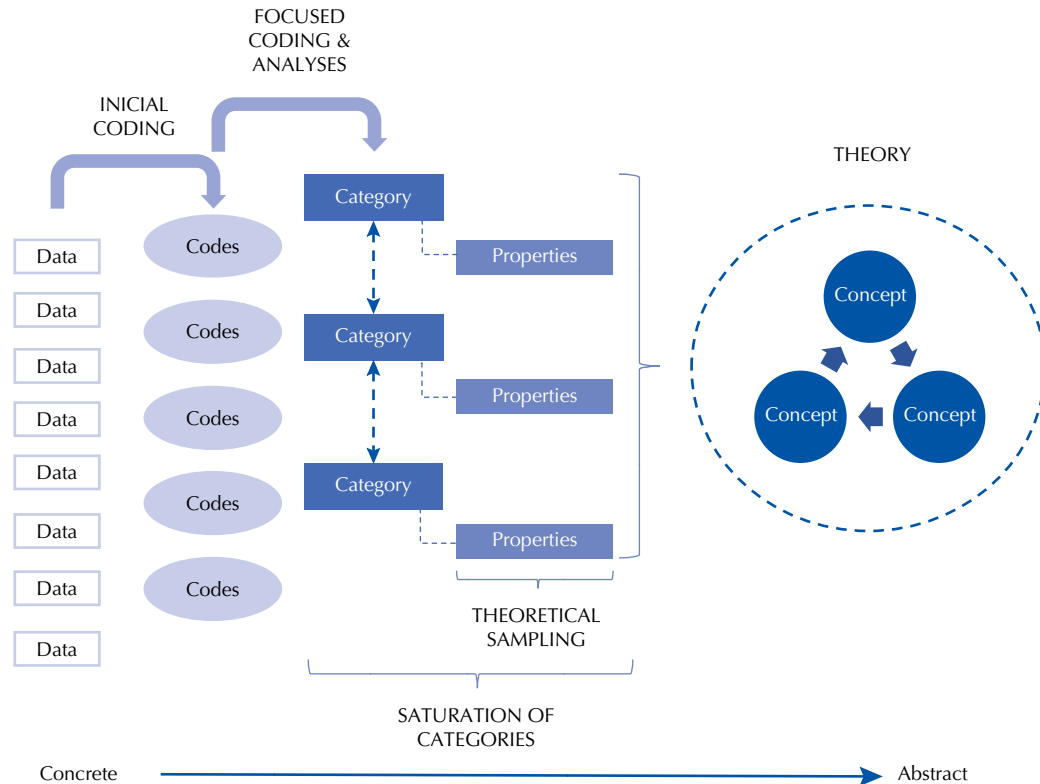
Type	Focus	Steps
Initial coding	Identify the action in the participants words including intentions and experiences.	<ul style="list-style-type: none"> Analyze data line by line. Create process codes using verbs that answer “what’s happening here?”. Develop in-vivo codes by using the participants’ own words as stated.
Focused coding	Identify the most frequently occurring and more important initial codes and use them to group data for deeper analysis.	<ul style="list-style-type: none"> Create focused codes based on the most significant or frequent codes. Mark the entire data set with focused codes and then use them to cluster the data accordingly. Analyze data in each focused code group using various techniques, including theoretical coding. Refine focused codes into tentative categories. Develop properties of each category, until saturation is reached (i.e., until each property of each category is fully described; theoretical sampling may be needed to accomplish this)⁽⁴⁾.

The purpose of GT is to develop concepts that are organized in a theory to describe and explain a previously poorly understood phenomenon in the empirical world. The analytic work of CGT guides researchers to identify relationships between concepts developed from coded data after careful, stepwise, rigorous analysis^(21,28). Saturation of categories is achieved through data analyses. Theoretical sampling is done to get additional data for more analysis so that properties of each category are fully described; this is done when needed in order to saturate properties. If data and analyses are robust, a category can be raised to the level of a concept. The analytic tools of theoretical coding are used in the final stage to identify the relationships between concepts to form a theory.

This process involves not only induction but also a process called abduction. With abduction, the researcher moves back and forth between the data and possible interpretations of the data, seeking to arrive at the most plausible theoretical explanation. Through this process, the researcher tests hypotheses, confirming or not confirming ideas^(4,15). Figure 2 illustrates the development of a theory from coded data when using CGT. It is a modified version

of the diagram that was originally designed by Saldaña⁽²⁸⁾. It depicts anew how CGT is conducted starting with data that is subsequently coded and analyzed to form categories with properties.

After a theory is developed and refined, it can be disseminated. This is when the readers will evaluate the usefulness of the theory and consequently, determine the value of GTM⁽⁴⁾. Various evaluation criteria have been used to critique GT but for the constructivist strand, credibility, originality, resonance and utility stand out^(4,15). Credibility refers to whether or not logical connections have been made between data and interpretations, covering a wide variety of empirical observations. Originality signals that the research has produced new knowledge about the interpreted reality of participants and depends on the value of its theoretical and social contribution. Resonance requires the GT to have a level of fullness of the studied experience that reveals presupposed meanings that make sense to the participants or to the people who share the same experiences. Finally, utility assesses whether the research has impact, leads to an improvement in people’s daily lives, contributes to a better world, and encourages new investigations⁽⁴⁾.



Adapted from: Saldaña, 2015⁽²⁸⁾.

Figure 1 – Process of CGT to Develop Theory from Coded Data.

FINAL CONSIDERATIONS

The Constructivist strand of GT was developed by Kathy Charmaz as a new interpretation of this methodology. It evolved from the Classical and Straussian strands of GT, and for this reason, CGT has characteristics in common with these strands: theoretical sampling, simultaneous data collection and analysis including the constant comparison of data, the use of memoranda, and theory development. In this sense, it should be noted that regardless of the specific approach, the use of GT requires researchers to attend to the precepts that provide quality and methodological rigor to their studies, and that differentiate GT from other qualitative research methodologies.

Among the characteristics that differentiate the aspects of GT are the philosophical underpinnings, the use of literature, and the coding system of data analysis. The most frequently invoked underpinnings of GT come from SI, which holds that meaning emerges from actions and interactions between individuals, and contributes to how they perceive reality.

RESUMO

Análise teórica da Teoria Fundamentada Construtivista e sua aplicação na pesquisa em enfermagem. Está organizada em três tópicos: características da Teoria Fundamentada nos Dados; base filosófica da vertente construtivista; e particularidades da análise de dados da Teoria Fundamentada Construtivista. As características exclusivas da Teoria Fundamentada que a diferenciam de outras abordagens são coleta e análise simultâneas de dados, amostragem teórica, comparação constante em cada estágio de análise, desenvolvimento de memorandos para análise reflexiva e comparativa e um sistema de codificação com uma etapa inicial e uma focalizada que é flexível e

In CGT, the use of the published literature is recommended before the study is implemented and after the grounded theory is developed. By reviewing published research and other theoretical frameworks, the researcher develops the research question. Later, the findings from other studies that corroborate, support, or counter the interpretation of the data are valuable for locating the grounded theory in the context of the state of the science.

Coding, a crucial part of data analysis in CGT, comprises an initial and a focused phase. The coding system is open, and not predetermined. Thus, the researcher develops codes based on data and uses memoranda to explore hunches, and for this reason, it is necessary that the researcher is open to explore all possible theoretical directions. The choice of words that make up codes reflects the researcher's perspective on the experiences or perceptions of the participants and their perspectives. Ultimately, theories based on data from a CGT study are constructed through interaction between researchers and participants, bringing an interpretive portrait of reality.

This analysis has the potential to deepen understanding of CGT as a methodology. Thus, it may contribute to the use of this methodology in future Nursing research in Brazil.

orienta o processo analítico de construção de uma teoria. Antes de embarcar em um estudo da Teoria Fundamentada Construtivista, a literatura é revisada para aprimorar a questão de pesquisa. Os pressupostos filosóficos do interacionismo simbólico e do construtivismo social influenciam todo o processo. A Teoria Fundamentada Construtivista enfatiza a construção e interpretação de dados reconhecendo contextos sociais, interação, o ponto de vista dos participantes e seus entendimentos de acordo com o tempo, lugar e situação da investigação.

DESCRITORES

Teoria Fundamentada; Pesquisa; Pesquisa Qualitativa; Métodos; Pesquisa Metodológica em Enfermagem.

RESUMEN

Análisis teórico de la Teoría Fundamentada Constructivista y su aplicación en investigación en enfermería. Se organiza en tres temas: Características de la Teoría Fundamentada; Base Filosófica de Vertiente constructivista; y particularidades del análisis de datos de la teoría fundamentada constructivista. Las características exclusivas de la Teoría Fundamentada que la diferencian de otros abordajes son colecta y análisis simultáneos de datos, muestra teórica, comparación constante en cada etapa de análisis, desarrollo de memorandos para análisis reflexivos y comparativos y un sistema de codificación con una etapa inicial, y una enfocada, que es flexible y que orienta el proceso analítico de construcción de una teoría. Antes de empezar en un estudio de la Teoría Fundamentada Constructivista, se revisa la literatura para perfeccionar la cuestión de investigación. Los presupuestos filosóficos del interaccionismo simbólico y del constructivismo social influyen en todo el proceso. La Teoría Fundamentada Constructivista tiene énfasis en la construcción e interpretación de datos que reconocen contextos sociales, interacción, el punto de vista de los participantes y su comprensión de acuerdo con el tiempo, lugar y situación de investigación.

DESCRIPTORES

Teoría Fundamentada; Investigación; Investigación Cualitativa; Métodos; Investigación Metodológica en Enfermería.

REFERENCES

1. Apramian T, Cristancho S, Watling C, Lingard L. (Re)Grounding grounded theory: a close reading of theory in four schools. *Qual Res.* 2017;17(4):359-76. <https://doi.org/10.1177/1468794116672914>
2. Tie YC, Birks M, Francis K. Grounded theory research: a design framework for novice researchers. *SAGE Open Med.* 2019;7(2):1-8. <https://doi.org/10.1177/2050312118822927>
3. Santos JL, Cunha KS, Adamy EK, Backes MT, Leite JL, Sousa FG. Data analysis: comparison between the different methodological perspectives of the Grounded Theory. *Rev Esc Enferm USP.* 2018;52:e03303. <https://doi.org/10.1590/s1980-220x2017021803303>
4. Charmaz K. A construção da teoria fundamentada: guia prático para análise qualitativa. Porto Alegre: Artmed; 2009.
5. Charmaz K, Keller R. A personal journey with grounded theory methodology. *Forum Qual Soc Res.* 2016;17(1): <https://doi.org/10.17169/fqs-17.1.2541>
6. Corbin J, Strauss A. Basics of qualitative research: techniques and procedures for developing Grounded Theory. Thousand Oaks: Sage; 2015.
7. Morse J. A moment of silence. *Qual Health Res.* 2020 Nov;30(13):1985-8. <https://doi.org/10.1177/1049732320958713>
8. Silva GW, Enders BC, Sousa FG, Sena JF, Santos RC, Silva AB. Grounded theory in theses and dissertations of Brazilian nursing. *Texto Contexto Enferm.* 2018;27(4):e3870017. <https://doi.org/10.1590/0104-07072018003870017>
9. Peiter CC, Santos JL, Kahl C, Cunha KS, Lacerda MR. Grounded theory: use in scientific articles published in Brazilian nursing journals with qualis A classification. *Texto Contexto Enferm.* 2020;29:e20180177. <https://doi.org/10.1590/1980-265x-tce-2018-0177>
10. Koerich C, Erdmann AL, Lanzoni GM. Professional interaction in management of the triad: Permanent Education in Health, patient safety and quality. *Rev Latino-Am Enferm* 2020;28:e3379. <https://doi.org/10.1590/1518-8345.4154.3379>
11. Girardon-Perlini NM, Simon BS, Lacerda MR. Grounded Theory methodological aspects in Brazilian nursing thesis. *Rev Bras Enferm.* 2020;73(6):e20190274. <https://doi.org/10.1590/0034-7167-2019-0274>
12. Dantas CC, Leite JL, Lima SB, Stipp MA. Grounded theory: conceptual and operational aspects: a method possible to be applied in nursing research. *Rev Latino-Am Enferm* 2009;17(4):573-579. <https://doi.org/10.1590/S0104-11692009000400021>
13. Koerich C, Copelli FH, Lanzoni GM, Magalhães AL, Erdmann AL. Grounded theory: evidencing divergences and contributions for nursing research. *REME.* 2018;22:e-1084. <http://www.dx.doi.org/10.5935/1415-2762.20180014>
14. Kenny M, Fourie R. Contrasting classic, straussian, and constructivist grounded theory: methodological and philosophical conflicts. *Qual Rep.* 2015;20(8):1270-89. <https://doi.org/10.46743/2160-3715/2015.2251>
15. Rieger KL. Discriminating among grounded theory approaches. *Nurs Inq.* 2019 Jan;26(1):e12261. <https://doi.org/10.1111/nin.12261>
16. Davoudi N, Nayeri ND, Raiesifar A, Poortaghi S, Ahmadian S. Issues of theoretical sampling: a narrative review. *Nurs Midwifery Stud.* 2016;6(2):e38284. <https://doi.org/10.5812/nmsjournal.38284>
17. Hoare K, Ward K, Walker R. English children's respectful reflections of the rights and lives of their Kenyan peers: a grounded theory study. *Child Soc.* 2018;32(2):145-55. <https://doi.org/10.1111/chso.12244>
18. Barreto MS, Vivar CG, Marcon SS. Methodological quality of Grounded Theory research with families living with chronic illness. *Int J Afr Nurs Sci.* 2018;8:14-22. <https://doi.org/10.1016/j.ijans.2018.01.001>
19. Zocche DA, Adamy EK, Lima CF. Perspectiva construtivista da teoria fundamentada nos dados. In: Lacerda MR, Santos JL, editors. *Teoria fundamentada nos dados: bases teóricas e metodológicas.* Porto Alegre: Moriá; 2019. p. 105-127.
20. Goudind C. Navigating the Complexities of Grounded Theory Research in Advertising. *J Advert.* 2017;46(1):61-70. <https://doi.org/10.1080/00913367.2017.1281775>

21. Charmaz K. "With constructivist grounded theory you can't hide": social justice research and critical inquiry in the public sphere. *Qual Inq.* 2020;26(2):165-76. <https://doi.org/10.1177/1077800419879081>
22. MacDonald M, Schreiber RS. Constructing and deconstructing: grounded theory in a postmodern world. In: Schreiber RS, Stern PN, editors. *Using grounded theory in nursing.* New York: Springer; 2001. p. 35-54.
23. Bakker JI. Grounded theory methodology and grounded theory method: introduction to the special issue. *Sociol Focus.* 2019;52(2):91-106. <https://doi.org/10.1080/00380237.2019.1550592>
24. Lee Y. Patients' perception and adherence to vaginal dilator therapy: a systematic review and synthesis employing symbolic interactionism. *Patient Prefer Adherence.* 2018;12:551-60. <https://doi.org/10.2147/PPA.S163273>
25. Blumer H. *Symbolic interactionism: perspective and method.* Englewood Cliffs: Prentice Hall; 1969.
26. Aldiabat KM, Le Navenec C. Data saturation: the mysterious step in grounded theory methodology. *Qual Rep.* 2018;23(1):245-61. <https://doi.org/10.46743/2160-3715/2018.2994>
27. Gomes IM, Hermann AP, Wolff LDG, Peres AM, Lacerda MR. Grounded theory in nursing: an integrative review. *Rev Enferm UFPE On Line.* 2015;9(1):466-474. <https://doi.org/10.5205/reuol.5221-43270-1-RV.0901supl201527>
28. Saldaña J. *The coding manual for qualitative researchers.* London: Sage; 2015.

Financial support

*Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (Capes). Code 001.
Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq).*



This is an open-access article distributed under the terms of the Creative Commons Attribution License.