



Journal of Nursing

Revista de Enfermagem

UFPE On Line

ISSN: 1981-8963

INTEGRATIVE REVIEW ARTICLE

GROUNDING THEORY IN NURSING: INTEGRATIVE REVIEW

TEORIA FUNDAMENTADA NOS DADOS NA ENFERMAGEM: REVISÃO INTEGRATIVA

TEORÍA FUNDAMENTADA EN LOS DATOS EN LA ENFERMERÍA: REVISIÓN INTEGRADORA

Ingrid Meireles Gomes¹, Ana Paula Hermann², Lillian Daisy Gonçalves Wolff³, Aida Maris Peres⁴, Maria Ribeiro Lacerda⁵

ABSTRACT

Objective: to analyze the Brazilian scientific studies in nursing that used the grounded theory as a method. **Method:** integrative review, which aims to answer the question “how is the grounded theory used as a method in Brazilian scientific studies in nursing?” The databases searched were the Nursing Database (BDEnf), Latin American and Caribbean Literature on the Health Sciences (LILACS), and Medical Literature Analysis and Retrieval System Online (MedLine). For the analysis, we used an instrument prepared by the authors with 20 methodological questions about the study. **Result:** the final sample consisted of 12 articles. A recent increase in the use of this method has been observed in Brazilian nursing; there is an emphasis on the discussion of its strategies, how to put them into practice, and what they represent in the method; the preference for using Strauss’ model; and the lack of discussion on some items of the method. **Conclusion:** a definition of the method is provided and the need for conducting specific national studies on this method is emphasized. **Descriptors:** Nursing; Nursing Methodological Research; Qualitative Research.

RESUMO

Objetivo: analisar as produções científicas brasileiras de enfermagem que utilizaram a teoria fundamentada nos dados como método. **Método:** revisão integrativa, com vistas a responder a questão “como a teoria fundamentada nos dados é utilizada como método nas produções científicas brasileiras de enfermagem?” As bases consultadas foram Base de Dados de Enfermagem (BDEnf), Literatura Latino-Americana e do Caribe em Ciências da Saúde (Lilacs) e Medical Literature Analysis and Retrieval System Online (MedLine). Para a análise foi utilizado um instrumento elaborado pelas autoras com 20 questões metodológicas acerca do estudo. **Resultado:** a amostra final consistiu em 12 artigos. Percebe-se recente incremento na utilização desse método na enfermagem brasileira; destaca-se a discussão de suas estratégias, como colocá-las em práticas e o que elas representam no método; a preferência pela utilização do modelo de Strauss; e a falta de discussão sobre alguns itens do método. **Conclusão:** elabora-se definição para o método e ressalta-se a necessidade de realização de estudos nacionais específicos sobre esse método. **Descritores:** Enfermagem; Pesquisa Metodológica em Enfermagem; Pesquisa Qualitativa.

RESUMEN

Objetivo: analizar los estudios científicos brasileños en enfermería que utilizaron la teoría fundamentada en los datos como método. **Método:** revisión integradora, cuyo objetivo es responder a la pregunta “¿cómo la teoría fundamentada en los datos es utilizada como método en estudios científicos brasileños en enfermería?” Las bases consultadas fueron Base de Datos de Enfermería (BDEnf), Literatura Latinoamericana y del Caribe en Ciencias de la Salud (LILACS), y Medical Literature Analysis and Retrieval System Online (MedLine). Para el análisis se utilizó un instrumento preparado por las autoras con 20 preguntas metodológicas acerca del estudio. **Resultado:** la muestra final estuvo compuesta por 12 artículos. Un reciente aumento en el uso de este método se ha observado en la enfermería brasileña; hay un énfasis en la discusión de sus estrategias, la forma de ponerlas en práctica, y lo que representan en el método; la preferencia por el uso del modelo de Strauss; y la falta de discusión acerca de algunos ítems del método. **Conclusión:** se elabora una definición para el método y se pone de relieve la necesidad de realización de estudios nacionales específicos acerca de este método. **Descriptor:** Enfermería; Investigación Metodológica En Enfermería; Investigación Cualitativa.

¹Nurse. Ph.D. student at the Graduate Nursing Program of the Federal University of Paraná (PPGenf/UFPR). Curitiba (PR), Brazil. Email: inguide@gmail.com; ²Nurse. Ph.D. student at PPGenf/UFPR. Curitiba (PR), Brazil. Email: anaphermann@yahoo.com.br; ³Nurse. Ph.D. in Nursing. Professor at PPGenf/UFPR. Curitiba (PR), Brazil. Email: ldgw@ufpr.br; ⁴Nurse. Ph.D. in Nursing. Professor at PPGenf/UFPR. Curitiba (PR), Brazil. Email: amaris@ufpr.br; ⁵Nurse. Ph.D. in Nursing. Professor at PPGenf/UFPR. Curitiba (PR), Brazil. Email: lacerda@milenio.com.

INTRODUCTION

The grounded theory (GT) is a qualitative method that aims to, on a systematic basis, develop a theory through empirical data from a social reality, opposing to the form of logical-deductive theory.¹

It was originally proposed by Glaser and Strauss, in 1967, in a period when quantitative research was dominant against the qualitative that, weakened, was regarded as impressionist and biased.² In this historical context, the authors mentioned above were able to highlight qualitative research by means of GT, in a harmonious blend of conflicting traditions, Glaser's quantitative inheritance provided GT with rigor, language, direction, and objectives, associated with Strauss' pragmatic influence, who modeled this method as for its agency, emergency, meaning, and action.²

Proposed by those authors and since then refined or modified by them and by other authors and critics, GT has a number of specificities, out of which there is the inductive-deductive-abductive theorization that permeates the process, the circularity of data, the theoretical sampling, the theoretical sensitivity, the coding, the subsequent comparison to the literature, among others.

Before discussing such specificities, there is a need to consider the language used in GT, which may raise doubts still today as for the meaning of some terms, as a consequence of Glaser's quantitative influence.² Thus, there is the term coding as data emersion, and not as a formula for applying to data in order to get results; a sampling that, rather than a representative population section, constitutes a way to fill in theoretical categories and gaps and, also, central variables that arise from experimental categories and not from deduction of abstract concepts.²

In GT, today, it has been observed that theorization takes place through inductive-deductive-abductive operations, it is inductive by coming from the specific towards the general, from data to the theory; there is not a primary hypothesis in the construction of a GT, data are the priority to explain the discovery.³ There are also deductive elements regarding the construction of hypothesis by the researcher through data³, and abductive elements as for checking of the theoretical interpretation by means of the social experience under study, reaching an emerging theoretical explanation of data, the most plausible way.²

This constant coming and going in data is what is meant as their circularity. They are collected and separated into small pieces, the codes, which are analyzed and compared simultaneously and successively; the comparison between codes is the guideline to search for new data⁴, since it allows identifying gaps to be achieved and preparing hypotheses to be confirmed.

This circularity also influences on theoretical sampling, intentional process for selecting subjects. Initially, there is a search for subjects who are experiencing the social situation under study, i.e. those who hold information or knowledge about the phenomenon in focus; as the early data are analyzed, the next subjects will be listed according to the specific need for further knowledge, which can change the subjects' characteristics the situations or events.³ So, there are various sampling groups that enable a deeper understanding of the phenomenon.

To make this sample theoretical, in order to actually provide data that provide the knowledge needed on a given social reality, the researcher must have theoretical sensitivity. This is the researcher's ability to show sensitivity and understanding on the whole process and her/his involvement in the latter, because he will intervene, interpret, act on, conceptualize and look for ways to generate or discover the theory.¹ Glaser claims that this sensitivity comes from a deep immersion in data and a constant comparison over the entire construction of GT, while Strauss argues that it is obtained by means of specific analysis tools, such as the analysis of words, sentences, the use of close and distant comparisons, among others.¹

The difference in position between the method creators becomes even clearer in the proposal of how to perform the coding of data. According to Glaser, coding consists of two steps: substantive and theoretical, the first is subdivided into open and selective; in turn, Strauss divides GT coding into 3 phases: open, axial, and selective.⁵ The differences between the two authors are vast and discussing this issue would not fit in here, but we must consider that, in addition to all specificities of this method, there are various systematic and successive strategies to implement it, as well as scholars who disagree on the strategies to adopt.²

The literature on GT is extensive and complex, mainly international, and it still remains poorly discussed in Brazil. Using this method at the national level occurs more frequently in sociology, psychology, and nursing.⁴ In nursing, this method became

popular, worldwide, in the 1980s and 1990s.³ And its consolidation has been useful, because is important to develop theories that can support the specific science the discipline.⁶

GT solidly contributes to the understanding of phenomena poorly addressed and the generation of explanatory models and theories, providing an effective indicator to guide the researcher to study care activities.⁷ This method is relevant to nursing because it represents a way for conducting significant and consistent research, as it enables a global and in-depth understanding of knowledge about the profession.⁸

OBJECTIVE

- To analyze the Brazilian scientific studies in nursing that used the grounded theory as a method.

METHOD

This is an integrative literature review, a research method that aims to group and summarize, in a systematic and orderly manner, scientific knowledge about a particular theme⁹, which in this case is GT. This method is regarded as the broadest for a literature review, since it allows defining concepts, analyzing methodological problems, drawing general conclusions on the theme under study, as well as pointing out gaps to be filled by new studies in order to provide a full knowledge on the theme.^{9,10}

The six steps of the model were followed⁹: 1) theme identification and selection of the research hypothesis or question, as explained above; 2) establishment of criteria for including and excluding studies; 3) definition of information to be extracted from the selected studies; 4) assessment of the studies included; 5) interpretation of results; and 6) presentation of the review/synthesis of knowledge.

It is known that the number of publications on health using GT as a method, even restricted to Brazil, is vast, something which might make impossible the synthesis of their discussion. So, to make it possible to answer the main question guiding this study, we chose to conduct the bibliographical survey by using

the combination of the descriptor “enfermagem” with one of the terms “grounded theory” or “teoria fundamentada nos dados” in all databases available in the Virtual Health Library. By means of the combination referred to above, it was possible to find articles only in the Nursing Database (BDEnf), Latin American and Caribbean Literature on the Health Sciences (LILACS), and Medical Literature Analysis and Retrieval System Online (MedLine. Initially, this search pointed out 22 articles for the combination with the term “grounded theory” and 19 for the combination with the term “teoria fundamentada nos dados”.

After this initial search, there was a selection according to the inclusion criteria, which were: original articles published and indexed in Portuguese, with online access to full text, there was no initial time restriction regarding the collection accessed, in order to view the evolution of the use of this methodology over the years, therefore, the sample contains all publications that fulfilled the other criteria until January 2013. Thus, the exclusion criteria were: articles not published in Portuguese, which did not contain the combinations of descriptors indicated above, or those that were not available online in full text.

Data were collected in March 2013. After selecting by means of the inclusion criteria and excluding articles that were repeated in more than one of the search combinations or in more than one database, 12 articles remained to make up the sample of this study.

To define the information to be extracted from selected studies, we created an instrument (Figure 1), which covers methodological issues concerning GT.

IDENTIFICATION DATA	1)	Title	
	2)	Journal/year/nr pages	
	3)	Journal origin	
	4)	Authors	
	5)	Authors origin	
	6)	Authors training	
	7)	Theme	
	8)	Objectives	
Data on the methodological framework			Description
9)	Conceptualization?	()Yes ()No	
10)	History?	()Yes ()No	
11)	Data collection?	()Yes ()No	
11.1)	Theoretical sampling?	()Yes ()No	
11.2)	Data saturation?	()Yes ()No	
11.3)	Theoretical sensitivity?	()Yes ()No	
12)	Data analysis?	()Yes ()No	
12.1)	Coding?	()Yes ()No	
12.2)	Data circularity?	()Yes ()No	
12.3)	Induction, deduction, and abduction?	()Yes ()No	
12.4)	Memoranda?	()Yes ()No	
12.5)	Supporting software?	()Yes ()No	
13)	Diagram?	()Yes ()No	
14)	Theoretical model/theory?	()Yes ()No	
15)	Comparison to the literature?	()Yes ()No	

Figure 1. Instrument to analyze articles.

RESULTS

The study sample consisted of 12 scientific articles, which we coded with letter A,

followed by cardinal numbers from 1 to 12, shown in Figure 2.

A1- Carvalho J, Erdmann A, Santana ME. The autonomy of care exercised by adolescents for a healthy life: the view of nursing. <i>Cogitare Enferm</i> [serial on the internet]. 2011 [cited 2013 Mar 20];16(2):268-74. Available from: http://ojs.c3sl.ufpr.br/ojs2/index.php/cogitare/article/view/17545/14213 .
A2- Koerich M, Backes D, Drago L, Backes M, Erdmann A. The meaning of ecological care for students and health teachers: a qualitative study. <i>Online Braz J Nurs</i> [serial on the internet]. 2010 [cited 2013 Mar 12];9(1). Available from: http://www.objnursing.uff.br/index.php/nursing/article/view/j.1676-4285.2010.2781 .
A3- Pezzi MCS, Leite JL. Nursing in the process of sterilization of materials. <i>Rev Bras Enferm</i> . 2010 May-June; 63(3):391-6.
A4- Lanzoni GMM, Meirelles BHS. Foreseeing the complex network of relationships and interactions of the brazilian community health care agent. <i>Rev RENE</i> . 2010 Apr-June; 11(2):140-51.
A5- Erdmann AL, Mello ALF, Andrade SR, Klock P. Funcionalidade dos grupos de pesquisa de administração/gestão/gerência de enfermagem. <i>Rev RENE</i> . 2010 apr-june;11(2):19-26.
A6- Ledesma-Delgado ME, Mendes MMR. Meaning of the systematization of nursing care for nurse managers. <i>Rev Latinoam Enferm</i> . 2009 June;17(3):328-34..
A7- Backes DS, Backes MS, Erdmann AL. Promoting citizenship through nursing care. <i>Rev Bras Enferm</i> . 2009 May-June;62(3):430-4.
A8- Backes DS, Erdmann AL, Lunardi VL, Lunardi Filho WD, Erdmann RH. Rousing new approaches to the nursing care management: a qualitative study. <i>Online Braz J Nurs</i> [serial on the internet]. 2009 [cited 2013 Mar 20];8(2). Available from: http://www.objnursing.uff.br/index.php/nursing/article/view/j.1676-4285.2009.2407/527 .
A9- Lopes MCL, Marcon SS. Concepts of health and sickness in families living with arterial hypertension: a qualitative study. <i>Online Braz J Nurs</i> [serial on the internet]. 2009 [cited 2013 Mar 15];8(3). Available from: http://www.objnursing.uff.br/index.php/nursing/article/view/j.1676-4285.2009.2484/544 .
A10- Backes DS, Koerich MS, Nascimento KC, Erdmann AL. Nursing care systematization as a multidimensional and interactive phenomenon. <i>Rev Latinoam Enferm</i> . 2008 Nov-Dec;16(6):979-85.
A11- Falcón GCS, Erdmann AL, Backes DS. Meanings of care in health promotion. <i>Rev Latinoam Enferm</i> . 2008 May-June;16(3):419-24.
A12- Santos SR, Nobrega MM. The search for theory-practice interaction in the nursing information system - approach from grounded theory. <i>Rev Latinoam Enferm</i> . 2004 May-June;12(3):460-8.

Figure 2. Identification of articles included in the sample of the integrative literature review.

In order to make it easier to view the results, they are summarized in Figure 3.

IDENTIFICATION DATA	Publication year	Journal origin	Authors origin	Authors training
	2012 = 0	North = 0(0%)	North = 1(8.3%)	Undergraduate student
	2011 = 1(8.3%)	Northeast = 2(16.7%)	Northeast = 1(8.3%)	= 1(2.7%)
	2010 = 4(33.3%)	South = 1(8.3%)	South = 8(66.7%)	MS
	2009 = 4(33.3%)	Southeast = 7(58.3%)	Southeast = 2(16.7%)	= 1(2.7%)
	2008 = 2(16.7%)	Central-West = 2(16.7%)	Central-West = 0(0%)	Ph.D.
	2005-2007 = 0(0%)			student
	2004 = 1(8.3%)			= 10(27%)
	2001-2003 = 0(0%)			Ph.D.
				= 25(67.6%)
Data on the methodological framework		Number of articles		
Conceptualization?		11(8.3%)YES	1(8.3%) NO	
History?		3(25%)YES	9(75%)NO	
Data Collection?		12(100%)YES	0(0%)NO	
Theoretical sampling?		9(75%)YES	3(25%)NO	
Data saturation?		5(41.7%)YES	7(58.3%)NO	
Theoretical sensitivity?		1(8.3%)YES	11(91.7%)NO	
Data analysis?		8(66.7%)YES	4(33.3%)NO	
Coding?		7(58.3%)YES	5(41.7%)NO	
Data circularity?		7(58.3%)YES	5(41.7%)NO	
Induction and abduction?		1(8.3%)YES	11(91.7%)NO	
Memoranda?		2(16.7%)YES	10(83.3%)NO	
Supporting software?		1(8.3%)YES	11(91.7%)NO	
Diagram?		3(25%)YES	9(75%)NO	
Theoretical model/theory?		6(50%)YES	6(50%)NO	
Comparison to the literature?		1(8.3%)YES	11(91.7%)NO	

Figure 3. Results of the items analyzed.

DISCUSSION

The articles selected are from 5 different journals, with a predominance of publications in the Southeast region. This prevalence, however, does not the origin of the published studies, which is mainly related to the South region, where there is an important group of scholars who use GT as a method in their work (A2, A4, A5, A7, A8, A10, A11). We observe a small, but valid, international interconnection to prepare these papers, 1 publication has an author from Peru (A11) and 1 has an author from Mexico (A6).

It is worth mentioning that the authors of these articles, almost all of them, are attending or have attended a graduate course; this points out the complexity of the method, which requires dedication and time from the researcher, a real immersion in data, according to the study subjects' experience. Only 1 author of 1 article (A2) is a graduate student; something which highlights that the use of the method in a graduate course becomes more difficult, occurring especially when interconnected to graduate scholars, since there is great commitment of researchers and time expenditure.

The results show that the increased use of such a method in Brazilian nursing is recent, most articles date from 2008 onwards, only 1 publication came before this date, in 2004 (A12). However, we notice a decreased rate in the last 2 years, which may be due to the use of descriptors different from "nursing",

preventing such studies to emerge; a consequence of the increased time spent between conducting the research and its concrete publication in a scientific journal; or, also, this may represent a different motivation, which might demand further investigation.

Another interesting aspect is that 4 out of the 5 nursing work processes, caring, teaching, researching, managing, and politically acting¹¹, were addressed by the selected studies, with an emphasis on care (A4, A5, A7, A8, A10) and management (A3, A8, A12), respectively, and research (A5) and education (A11) were themes in only 1 study each.

The work process named politically acting was not a theme in any study, however, it permeates all studies; thus, even if it has not been directly mentioned, it is represented. This explicit absence of politically acting in the studies is consistent with general publications in nursing and in the practice of this profession, which often does not recognize this work process or even its political role.¹¹ Meanwhile, a study (A2) stands out by working on care, but discussing its philosophical political aspect as an ecological care.

The analysis of the methodological framework of articles included in the sample revealed how nursing authors provide the use of GT with a basis.

This is a method which increasingly attracts followers, especially by presenting logical and explicit analytical strategies for the construction of a grounded theory based on qualitative data.³ This may be noticed in the selected articles related to the conceptualization of this method, almost all of them (A2-A12) describe it as a theory grounded in data or prepared by means of social experience.

Also regarding conceptualization, the authors cite as GT objectives: understanding the meaning of a phenomenon that considers action as data (A2, A10) and identification, development, and relation between concepts (A3, A5, A7). They also mention that there is a need for a detailed and comparative analysis (A1, A5, A6, A10-A12), since GT has a close relation between its various stages, such as data collection and analysis (A1, A2, A5, A11), it does not use assumptions (A6), it is not intended to test its findings (A3) and various sources may be regarded as data (A2, A8), it explores the phenomenon through the reality where it falls within (A3, A4, A6, A10) and it must add new action perspectives (A3, A4, A7).

It is worth mentioning that 2 articles (A1, A7) consider in a plausible way the use of this method in combination with the complexity theory; it is claimed that GT “takes into account the multiplicity of social interactions and global understanding, in-depth and complex”.^{12:431}

GT history is cited by only 3 articles that referred to the authors who conceived the theory (A4, A10) and its roots in symbolic interactionism (A6). It is understood that, since they are original research articles, discussing the method's history might not be adequate, but it is worth understanding this to recognize the inheritance, evolution, its various possibilities of use, as well as the development of this method with authors who follow the original authors.

The researchers who choose this method recognize its definition; the discussion is focused on which strategies must be followed, how to put them into practice, and what they represent.² Thus, it is understood that the data collection and analysis phase is that showing more complexity and specificity in GT.

Regarding data collection, as proposed by the method⁴, various sources and ways to collect data were used in the selected articles: field diary (A9), participatory observation (A6, A7, A11-A12), documentary research (A6), texts, clippings, and clusters produced by the subjects (A1), and, mainly,

interviews, which was the most frequently used (A1-A12).

The sampling groups, which characterize GT, have been cited by most articles (A1, A2, A4, A5, A7-A11). In some of them (A3, A6, A12), this was not explained, making it more difficult to grasp how a full understanding of the phenomenon has been reached. Since the theoretical sampling and data saturation are important features, it might be significant to understand how these elements occurred in the surveys. In 9 articles (A1, A2, A4-A7, A10-A12) theoretical sampling is cited, but in only 5 (A1, A5, A7, A11, A12) the meaning of this term is explained; in turn, regarding theoretical saturation, 5 articles (A2, A6, A10-A12) cite it, but in only 1 (A12) its meaning is expressed.

It is worth recalling that the meaning of theoretical sampling goes beyond the strict meaning of words, sample has no statistical value and theory does not represent the interrelation between a set of concepts, assumptions, and definitions.⁴ The group of individuals, events and situations, chosen on an intentional basis, becomes theoretical as it supports the creation of hypotheses and theory.⁴ Theoretical saturation occurs at this time, when the theoretical sample is enough to support the construction of theory.

Theoretical sensitivity, indispensable for the researcher to deepen theory, without directly intervening in data, was mentioned by only 1 article (A6), but it was not discussed. This is an ongoing dialogue between the researcher and data, by raising awareness of the importance of concepts and hypotheses that emerge from such data, combined with professional and personal experiences.³

Data analysis, with its inherent coding, is a crucial point of the GT construction process. As already mentioned, there are different ways to do it, however, in the articles analyzed, there was predominance (A4, A6, A9-A12) of the model proposed by Strauss. This finding is not absolute, because some authors (A1-A3, A5, A7, A8) do not mention which model was adopted.

The preference for the method proposed by Strauss, and also for using the paradigm model to explain correlations between data. Among the studies citing correlations between categories or concepts found (A1, A2, A4, A6, A9-A12), only 2 (A2, A9) do not directly refer to the use of this model.

The differences between the two creators of GT - Strauss and Glaser - are significant with regard to data analysis, especially in terms of coding, “Perhaps, GT is simply rather

science with Strauss and rather art with Glaser".^{1:558} The differences, although relevant, are not addressed in the articles, and their analysis does not allow a reflection about this, because none of them seems to use Glaser, and if any does that, it is not clear.

In order to lead data analysis to allow discovering the central theme, vital step to understand the phenomenon and explain action on the social scene, there is a need to group data into categories and present connections and interconnections between them.¹³ Even so, it is possible to notice that 3 articles (A7, A8, A11) do not show the categories prepared in their studies; they introduce the phenomenon, but do not allow understanding the established correlations, something which prevents understanding the whole.

A peculiarity of the method is data circularity, indirectly cited by 7 articles under study (A1-A3, A5-A8). However, there is no discussion on this item, although it represents the GT feature that stands out, without which we cannot develop it. This is the "heart of the process, enabling the generation of theory through systematic coding and analytical procedures".^{5:3}

The induction, deduction, and abduction is another aspect that is not discussed. The term abduction is a current conception and it was not mentioned by any article. The idea of induction and deduction is more widespread, but, even so, only 1 article (A10) cites this process. This is important, because it makes this method different from other qualitative ones, when concerning the presence of deductive and abductive elements.

For developing GT it is also relevant to construct memoranda, which are notes that the researcher provides himself with regarding ideas or insights about categories or the relation between them.⁵ This item is mentioned only once (A6) in the selected articles. In another article (A11), the authors cite theoretical, methodological, and observational notes that are understood, in this study, and refer to memoranda, without, however, making any mention of this term. This omission does not represent that such construction has not occurred, it may be the case that the term just has not mentioned. We have to recognize the meaning of memoranda, capable to generate a conceptual framework of ideas and facts about the phenomenon under study, complementing the phase of writing down the survey.⁵

The organization of GT must be very careful, because the amount of data is large.

In addition to memoranda, we may choose to use supporting softwares, which are qualitative software packages, useful for in-depth inductive analysis, making it easier to construct models and diagrams; however, as this is a method requiring sensitivity, the use of softwares may cause detachment.³ Among the selected articles, only 1 (A5) has used a supporting software in the analysis, something which shows that this is a resource still not extensively spread at a national level; and this may be motivated by the difficulty of access to this technology, both in financial and operational terms.

Another device poorly used was the diagram. Only 3 articles (A3, A5, A12) presented their data by using this device, something which allows a better visualization and understanding of actions and interactions between categories, subcategories, themes, besides helping the researcher her/himself to reach the central category and the theoretical model representing the experience under study.¹⁴

The construction of the theoretical model is the main aim of the method, however, it was observed that only half of the articles (A1, A3-A6, A12) showed the model that was constructed, therefore, the understanding on the phenomenon of the remaining articles was partial. Various nomenclatures are used to represent this theoretical model: theory (A2, A3, A6), conceptual model (A12), representative model (A5), theoretical matrix (A3) and theoretical scheme (A4).

Finally, GT proposes a comparison to the literature, which occurs only during the last phase of the method and serves to oppose the model that emerged from data to already existing models and frameworks, in order to find similarities, reinforcements, differences, or gaps.³ Most (A1-A4, A7, A9-A12) of the selected articles use the literature in data presentation and only 3 (A5, A6, A8) dialogue with other authors after the presentation of data from their survey, as prescribed by the method.

The choice of these authors to provide a comparison to the literature along with the discussion of results may not represent a change in the proposed methodological framework, but the adequacy of the survey conducted to the editorial standards of scientific journal that require it. This fact does lead us to think through how far the adequacy to editorial standards, i.e. market requirements, may or may not interfere with the way the survey is carried out, as well as with its results.

We may understand that the discussion with authors occurs simultaneously to the discussion, especially according to Strauss's trend in the methodological framework³, however, usually and especially in Glaser's trend, further discussion with authors stands out, in order to prevent the corruption of data arising from reality due to data from previous literature⁵, a position avoided by the authors of this article.

Any of these trends, however, appreciates the theory foundation revealed through data. Thus, if the joint discussion has been conducted this way only for the purpose of presentation and viability of scientific communication, there still remains the grounding of data in social reality, but if this joint discussion already begins in the survey, it might not result in a theory that really represents the subjects' experience, social reality.

CONCLUSION

GT is a method that has a complex systematics, however, due to its possibilities, it has gradually gained prominence in nursing. This study presents a synthesis of nursing knowledge on this method, providing relevant material so that it may be used properly in further studies.

Even if only one author has not presented in her/his definition all these aspects, we notice some knowledge on the main idea of GT inherent to these publications. It is possible to notice that, by collecting data from different articles, a good definition of the method is drawn up, as it has specificities and relevance: GT is a qualitative research method that enables the construction of a theory grounded in data that may come from various sources and it is produced through a given social experience. It also allows understanding the phenomenon by means of the reality where it is inserted considering the identification, development, and relation between concepts, using a detailed comparative analysis, strictly related to data collection, a process that is not among the assumptions, as well as it is not intended to test findings, since it is possible to add new perspectives of action.

It was noticed that, although there is predominance of one model of the method, the authors show the phases and peculiarities of the method in various ways, something which is allowed by the method, but as they are not well described by publications, it implies difficulties in reader's understanding of the phenomenon under study.

GT is a method that permeates and supports the entire research process, and the way how it is carried out tells a whole lot about the results; therefore, we emphasize the importance that this information is observed in the studies. However, we consider that the focus of the articles analyzed in this integrative review was not the method itself, something which explains that their respective authors did not provide in-depth discussion of the method.

Given this, there emerges the need for specific national studies on GT are conducted, both in order to help developing the method - as it has occurred internationally - and to help researchers who will use it. It is hoped that this study is a step towards the construction of this national knowledge on GT, a method that allows combining art with science, in the construction of nursing as a profession that deals with various experiences and phenomena that go far beyond the biological aspect.

The synthesis presented herein and the discussion of the methodological framework of GT that this study proposed enables the construction of knowledge on nursing rather scientific, the measure that shows the need for scientific rigor, and how to do it. Knowing the methodological pathway and properly deploying it will allow nurse researchers to consolidate their results as science. Mainly within qualitative research, which has to prove and demonstrate that, more than a relation between cause and effect, it points out ways to achieve a scientific status by knowing meanings through the social experience.

ACKNOWLEDGMENT

The authors thank the National Council for Scientific and Technological Development (CNPq).

REFERENCES

1. Walker D, Myrick F. Grounded Theory: an exploration of process and procedure. Qual Health Res [Internet]. 2006 [cited 2011 May 14];16:547-59. Available from: <http://qhr.sagepub.com/content/16/4/547>
2. Charmaz K. Reconstructing Grounded Theory. In: Alasuutari P, Bickman L, Brannen J (Orgs.). The SAGE handbook of social research methods. Thousand Oaks: Sage Publications LTDA; 2007. p. 461-78.
3. Holloway I, Todres L. Grounded Theory. In: Gerrish K, Lacey A. (Org.). The Grounded Theory. Research process in nursing. Oxford: Blackwell [Internet]. 2006 [cited 2011 May

- 14];192-207. Available from: <http://www.qualres.org/HomeGrou-3589.html>
4. Bianchi EMPG, Ikeda AA. Usos e aplicações da Grounded Theory em administração. Revista Eletrônica de Gestão Organizacional [Internet]. 2008 [cited 2011 May 14];6(2):231-48. Available from: <http://www.ufpe.br/gestaoorg/index.php/gestao/article/view/72/62>.
5. Petrini M, Pozzebon M. Usando grounded theory na construção de modelos teóricos. Rev Gestão e Planej [Internet]. 2009 [cited 2012 Aug 30];10(1):1-18. Available from: <http://www.spell.org.br/documentos/download/800>.
6. Alvarado OS. Contribución de la investigación cualitativa a enfermería. Cienc enferm [Internet]. 2009 [cited 2012 Aug 30];15(3):15-20. Available from: http://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0717-95532009000300003.
7. Leite JL, Silva LJ, Oliveira RMP, Stipp MAC. Reflexões sobre o pesquisador nas trilhas da Teoria Fundamentada nos Dados. Rev esc enferm USP [Internet]. 2012 [cited 2012 Aug 30];46(3):772-7. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0080-62342012000300033&lng=en
8. Erdmann AL, Oliveira RJT, Santos JLG, Cassettari SSR, Klock P, Soder RM. Practices of care management from nurses in emergency care units. J Nurs UFPE on line [Internet]. 2012 [cited 2013 Jan 9];6(8):1991-7. Available from: <http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/2891> doi: 10.5205/01012007
9. Mendes KDS, Silveira RCCP, Galvão CM. Revisão integrativa: método de pesquisa para a incorporação de evidências na saúde e na enfermagem. Texto & contexto enferm [Internet]. 2008 Dec [cited 2011 Oct 12];17(4):758-64. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-07072008000400018. doi: 10.1590/S0104-07072008000400017
10. Souza MT, Silva MD, Carvalho R. Revisão integrativa: o que é e como fazer. Einstein (São Paulo) [Internet]. 2010 Jan-Mar [cited 2011 Oct 12];8(1 Pt 1):102-6. Available from: http://astresmetodologias.com/material/O_que_e_RIL.pdf.
11. Sanna MC. Os processos de trabalho em enfermagem. Rev bras enferm [Internet]. 2007 Mar-Apr [cited 2011 Oct 12];60(2):221-4. Available from: http://www.scielo.br/scielo.php?pid=S0034-71672007000200018&script=sci_arttext.
12. Backes DS, Backes MS, Erdmann AL. Promovendo a cidadania por meio do cuidado de enfermagem. Rev bras enferm [Internet]. 2009 May-June [cited 2011 Oct 12]; 62(3):430-4. Available from: <http://www.scielo.br/pdf/reben/v62n3/15.pdf>.
13. Catafesta F, Lacerda MR, Gomes IM, Correa ABH. Nurses experience on home care competence development: Grounded Theory. Online braz j nurs [Internet]. 2009 [cited 2011 Oct 12];8(3):[about 7 screens]. Available from: <http://www.objnursing.uff.br/index.php/nursing/article/view/j.1676-4285.2009.2524/555>.
14. Patricio KP, Hoshino K, Ribeiro H. Ressignificação existencial do pretérito e longevidade humana. Saude Soc [Internet]. 2009 Apr-June [cited 2011 Oct 12];18(2):273-83. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-12902009000200010

Submission: 2013/07/31

Accepted: 2014/12/14

Publishing: 2015/01/15

Corresponding Address

Ingrid Meireles Gomes
 Programa de Pós Graduação em Enfermagem
 Setor de Ciências da Saúde
 Universidade Federal do Paraná
 Av. Pref. Lothario Meissner, 632 / 3º andar
 Bairro Jardim Botânico
 CEP 80210-170 – Curitiba (PR), Brazil