Nursing care management in hospital settings: the building of a construct

ABSTRACT
The objective of this study was to build and present a theoretical definition of the concept of nursing care management in hospital settings, based on specific literature. We chose to use Concept Analysis strategies for building concepts, the rules of Archeological Analysis for forming concepts, and Lexical Analysis as the theoretical-methodological framework. The operationalization of the strategies and rules for forming the concept permitted the construction of the concept of nursing care in hospital settings. The constructed concept, presented by its nature, the capacity to form a dialectic integration of the aspects relative to the knowing-doing of care and management. The theoretical definition of the concept of Nursing Care Management in Hospital Settings assigned meaning to the term, in the initial context of the construction of a theory of Nursing Care Management in Health Services.

DESCRIPTIONS
- Nursing care
- Management
- Concept formation
- Patient care management
- Nursing staff, hospital

ABSTRACT
Este estudo teve como objetivo construir e apresentar a definição teórica do conceito de gerência do cuidado de enfermagem em cenários hospitalares, a partir de base literária específica. Optou-se pela utilização das estratégias para construção de conceitos da Análise de Conceito, as regras de formação de conceito da Análise Arqueológica e a Análise Lexical como referencial teórico-metodológico. A operacionalização das estratégias e das regras de formação de conceito possibilitou a construção do conceito gerência do cuidado de enfermagem em cenários hospitalares. O conceito construído apresentou, em sua natureza, a capacidade de integrar dialecticamente os aspectos relativos ao saber-fazer do cuidar e gerenciar. A definição teórica do conceito Gerência do Cuidado de Enfermagem em Cenários Hospitalares deu significado ao termo, no contexto inicial de construção de uma teoria, a Gerência do Cuidado de Enfermagem em Serviços de Saúde.

DESCRIPTIONS
- Cuidados de enfermagem
- Gerência
- Formação de conceito
- Administração dos cuidados ao paciente
- Recursos humanos de enfermagem no hospital

ABSTRACT
Construir y presentar la definición teórica del concepto de administración del cuidado de enfermería en escenarios hospitalarios a partir de base literaria específica. Se optó por la utilización de estrategias para construcción de conceptos del Análisis de Concepto, las reglas de formación de concepto del Análisis Arqueológico y el Análisis Lexical como referencial teórico-metodológico. La operacionalización de estrategias y de reglas de formación de conceptos posibilitó la construcción del concepto “administración de la atención de enfermería en escenarios hospitalarios”. El concepto construido presentó en su naturaleza la capacidad de integrar dialécticamente los aspectos relativos al saber/hacer del cuidado y administración. La definición teórica del concepto Administración de la Atención de Enfermería en Escenarios Hospitalarios dio significado al término, en el contexto inicial de construcción de una teoría, la Administración de Atención de Enfermería en Servicios de Salud.

DESCRIPTIONS
- Atención de enfermería
- Gerencia
- Formación de concepto
- Administración de los cuidados al paciente
- Personal de enfermería en hospital

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INTRODUCTION

The interest in researching on the theme nursing care management in the hospital context emerged from personal concerns when perceiving that, in the 21st century, many nurses still display a behavior that evidences a dichotomy between management and care delivery in their discourse and practice, as if these were two concomitant activity spheres whose practice is incompatible. The nurses’ conceptual difficulty with nursing care management actions is perceived, to the extent that most of them do not understand that their work process involves care delivery (direct care actions) and management (indirect care actions), i.e. that nurses’ actions in practice are directed at nursing care management.

This dichotomy between management and care, however, should not permeate the nurses’ discourse as, since the institutionalization of Nursing as a profession, their work process comprises two processes, the care process and the management process. Florence Nightingale, who is considered the precursor of Modern Nursing and the first hospital manager, demonstrated the importance of nurses’ knowledge on administrative techniques and instruments in different studies, with a view to the organization of the therapeutic environment and the systematization of nursing care techniques and procedures.1,2

The dichotomy between care and administration can be overcome through a change in nurses’ education and know-how in nursing care organization in hospital contexts, so that the nursing care delivery standards they put in practice are based on a systemic model.

In this perspective, we believe that a Nursing Care Management concept can be constructed that contains a dialectical instead of a dichotomous relation between care and care management. This dialectical relation involves the social and cultural form and contents of individual and collective care in the hospital context.3

An extensive Brazilian literature review on nursing care management revealed the inexistence of a structured concept that guided or adhered to the practice developed in hospital contexts. The contents found derive from reflections that appoint instruments to put in practice nursing care management and health care, such as: the nurse’s function that demands competences to administer the sector, development of technical-care and staff management activities;4 administrative actions aim for a sole product, which is quality care for the client;5 phases of the administrative process; function of health team members; object of the management process that falls upon nursing workers;6 intermediary stage between care delivery and management of work units;7, among others.

Another fact that stood out in the literature survey was the fact that studies with a clearer and more objective definition for care management addressed collective health management issues.8,9 These literature results reinforce the importance of building a nursing care management concept that can guide the actions the nurses develop in the hospital context, Nursing Management teaching and the development of Nursing know-how.

This paper presents the results of a doctoral dissertation with the following aims: build and present the theoretical definition of the nursing care management concept in hospital contexts, based on specific literature.

METHOD

To build new knowledge and/or transform established and institutionalized knowledge on a theme, one should know the empirically produced and validated knowledge. To construct a scientific concept, systemized methods need to be applied. To construct the nursing care management concept in hospital contexts, the researchers chose a multi-referential approach, in which the concept construction strategies of Concept Analysis and the conception formation rules of Archeological Analysis were used, which were put in practice through Lexical Analysis of Co-occurrences in Alceste software.10 This option originated in the belief that scientific knowledge construction is based on concepts created, affirmed or transformed according to their historicity and systematic description of a discourse-object.11

The research sample comprised Brazilian productions on the themes: administration, nursing care and nursing care management. To develop the study, the following guiding question was established: What are the essential components of the nursing care concept in the hospital context originating in literature? The bibliographic survey covered 28 years (first text found dated back to 1982) and was put in practice in two phases: (1) search for productions in international electronic databases: Latin-American and Caribbean Health Science Literature (LILACS) and the Nursing Database (BDENF) of the Virtual Health Library (BVS/BIREME); (2) manual search in journals, dissertations, theses and books. The following descriptors were used in all searches: administration, patient care administration and nursing care. It is highlighted that care management is not recognized as a descriptor but as a term.

The selected texts were refined to compose the sample through the application of the following inclusion criteria: a) theoretical-conceptual contribution in admin-
istation, management and nursing care concerning their administrative and management aspects; b) relationship among the terms administration, management and nursing care; c) address the meanings and application of the terms administration, management and nursing care in thematic contexts with the following characteristics: definition: historical, evolutionary and geographic origin; function; action field; action result; operationalization and systemization; and e) texts of books and papers published in Brazilian and international journals in Portuguese, which complied with the above inclusion criteria.

At the end of this process, the sample comprised 75 productions, divided into: research papers n = 17; review papers n = 14; theoretical reflection papers n = 16; conferences n = 06; theses n = 10; dissertations n = 06 and books n = 06. It is highlighted that, out of 75 productions in the study's sample, 07 belonged to the Administration area; 22 to Nursing (productions about care); 45 to Nursing Administration; and 01 to Health Administration. These productions constituted the corpus of the study analysis. This corpus was prepared and submitted to the specific procedures and operations of the Alceste software.

For the sake of a better understanding of how the study results were obtained, a short explanation is due on the references used. It should be highlighted that the approximation between the theoretical and methodological frameworks of Concept Analysis, the Archeology of Knowledge and Lexical Analysis used to construct the nursing care management concept was possible because, although concept analysis makes it clear what to do to construct a concept, it does not prescribe operational phases for this construction. This permits some freedom to adopt different approaches. Next, the theoretical-methodological approaches are presented.

Concept Analysis, the first reference framework to be addressed, is a set of understandable strategies that can broaden the intuitive processes theoreticians already use to construct concepts, proposals and theories. In this study, strategies are considered the guidelines for the development of activities related to the theoretical focus (11). The development of a concept is a crucial task to develop a theory. Often, however, phenomena are described, explained or established without the theoretician’s clear understanding of what actually has to be described, explained or established. For the systematic development of the nursing care management concept in hospital contexts, the following strategies were selected for its construction: (1st) Concept Derivation; (2nd) Concept Synthesis; (3rd) Concept Analysis.

The second approach used in the study is Archeological Analysis, also called Discursive Analysis. Within the archeological perspective, concept formation aimed to establish the possibilities of new knowledge inside already instituted knowledge. Archeological analysis serves to analyze discourse that constitutes new knowledge. Thus, knowledge comprises a set of elements constituted by a discursive practice, which is specified as the domain constituted by different objects that may gain a scientific status or not, the space in which the subject can talk about the objects his discourse is referring to, the field of coordination and subordination of the statements in which the concepts appear, are defined, applied and transformed. Finally, knowledge is defined by the possible uses and appropriations the discourse offers. In this context, the discursive practices stand out, which constitute the knowledge archeology analyzes, which are inserted in the archeological territory. The archeological territory is the region where the statements are located that make up the enunciation or contextual field, a field characteristic of the discourse, which is the focus of archeological analysis (12).

Thus, to put in practice the development strategies of the Concept Analysis (11) concept and the concept formation rules of Archeological Analysis, the methodological framework of Lexical Analysis was chosen, which is considered a relation analysis mode, based on the computerized analysis of co-occurrences in the Alceste software. Alceste is a computerized technique and a textual data analysis method, to the extent that the program integrates a large quantity of sophisticated statistical methods used in the identification of the basic information contained in a text or set of texts. The program automatically performs the lexical analysis of text contents through quantitative textual data treatment techniques, among which the Chi-square (X²) test stands out (13).

Alceste works on the premise that, when different individuals produce the text corpus, discourse is analyzed in different ways, reproduced through a particular, specific vocabulary that detects different forms of thinking about the phenomenon of interest. Thus, based on the program’s own dictionary, the data corpus (texts) is analyzed and subdivided, including the identification of tool-words and full words. Full words are those words that have meaning, characterizing the context units, and reveal the semantic world to be explored in the research. The Alceste analysis is based on the reduced forms of these words that constitute the contextual field. The contextual field is defined as the specific vocabulary of a class characteristic of a certain type of context (13).

The regularity of a specific vocabulary in a class indicates the existence of a contextual field, i.e. the existence of a specific semantic space. In this sense, Alceste works to integrate the different associative classes in the same field, generating a global representation, which permits the emergence of an environment from which each studied object emerges and receives meaning. Therefore, further understanding is needed about what a class is in the Alceste method. It can be understood as a group of contents with a homogeneous vocabulary and its relations inside a context. Its meaning will only be defined based on the relation established between the contents that compose the class and the objects and objectives of each re-
search. Alceste analysis does not intend to interpret what is said, but to know in what means it is said.

Thus, based on the theoretical-methodological frameworks explained, the nursing care management concept was constructed in two phases, which are: quantitative and qualitative. Therefore, a hybrid research method was used, which is the combination method. In this strategy, both research models, the quantitative and the qualitative, were used in a complementary and parallel way\(^{(16)}\), with a view to data treatment, organization and analysis.

In this research phase, statistical analysis was applied to: (a) extract from the analysis corpus the group of attributes to define the management and care concepts that constitute the new phenomenon of interest, nursing care management; and, (b) classify the data related to the phenomenon of interest by grouping them based on content similarities and differences inside a semantic context, presented by the set of statements, i.e. the set of elementary context units (ECU) that constituted the classes resulting from Alceste analysis. It is highlighted that the criterion adopted to select and order the specific elements of a class and, consequently, specific for the category it is part of, was the result of the Chi-square test (\(x^2\)). Elements with \(x^2\) equaling 38 or higher were considered recurring, i.e. characteristic of a class. The Chi-square (\(x^2\)) value of 38 resulted from the arithmetic means of the \(x^2\) values calculated based on the 10% highest \(x^2\) values for each of the five classes that resulted from the Alceste analysis.

To construct the analysis categories that resulted from the use of the Alceste method and to elaborate the thematic groups of the classes that composed these categories, the following criteria were used: (a) grouping of similar reduced forms, based on full words or semantic context; (b) the reduced forms of a thematic group were organized based on \(x^2\), in decreasing order, to redistribute the reduced forms in each thematic group; (c) the affinity deriving from the similarity to or approximation with each thematic group was reviewed by comparing the ECU and the reduced forms of full words in each thematic group; and, (d) the ECU were selected according to the decreasing \(x^2\) value, based on a minimum cut chosen to use the ECU, i.e. \(x^2 = 10\), as, below this value, the contexts started to take distance from the study object.

In the same phase, the concept derivation and synthesis strategies were put in practice. In the derivation strategy, the following guiding questions were used to direct the derivation of the administration, nursing care and nursing administration concepts that remit to the new concept of nursing care management: What ideas do the classes present on the administration/management, nursing care and nursing management concepts? How do the ECU define these concepts? What concept characteristics or attributes are appointed in the ECU?

Through the application of the synthesis strategy, the uses and essential attributes of the nursing care management concept were identified. Therefore, the following guiding questions were used: What ideas do the classes present about the nursing care management concept? How do the ECU define this concept? What characteristics or attributes of this concept are appointed in the ECU?

In this phase, the concept components were also identified. These components were defined based on the full words that characterized each class, i.e. words with \(x^2\) of 38 or higher. To seek the uses and essential attributes of the concept and its components, the classes present in the ECU results that characterized them were subject to thematic context analysis, also considering the reduced forms of the most significant full words in these classes.

In the qualitative phase, the concept analysis strategy was applied, involving the following steps: (a) identification of recurring elements in the objects’ discursive formation: care, management and care management; (b) identification of the attributes that theoretically define the concept; and, (c) construction of the concept’s theoretical definition, according to the concept formation rules of the Archeology of Knowledge.

**RESULTS**

The data found in the five classes that resulting from the application of the Alceste method to this research's analysis corpus permitted the construction of three analysis categories, which were: (a) Category 1. Care: Dimensions, Actions and Interfaces with Professional Practice – comprises class 4 – Theoretical Dimensions of Care, and class 3 – Care Actions and their Interfaces with Professional Practice; (b) Category 2. Administration/Management – Historical Evolution of Teaching, Management Models and Management Practice in Health – comprises two classes, which are: Class 1. Historical Aspects of Nursing Administration Teaching; and Class 5. Management Models and the Health Work Process; (c) Category 3. Nursing Care Management: the Nurse’s Actions in Professional Practice – comprises the final class that resulted from the Alceste analysis, class 2. Nursing Care Management Actions and the Nurse’s Professional Practice.

The definition of the associative classes was based on the analysis of relationships of neighborhood, similarity, distancing and differences established in the set of statements characterized by the recurrent elements that compose the class. Thus, the recurring elements or attributes of the concepts are the characteristics that make them unique in comparison with other concepts. In this sense, the recurring elements found in each analytic category, which guaranteed the existence of regularity in the enunciation field and were therefore defined as essential to conceptualize nursing care management in hospital contexts, are displayed in Chart 1.
The statistical analysis results of the $x^2$ values found for the variables associated with the classes that make up each analytic category, i.e. the relation between the total ECU produced in the corpus and the total ECU belonging to each class evidenced the archeological territories in which the discursive practices that constitute the knowledge in these classes are located. In this context, the archeological territory of category 1 is characterized by knowledge about the first care concept, predominantly produced in the States of Santa Catarina and Rio de Janeiro, mainly originating in reflection papers and doctoral dissertations in Nursing Administration and Health Administration.

In category 2, this territory is characterized by knowledge about the first management concept, predominantly produced in the States of São Paulo, Rio Grande do Norte and Rio Grande do Sul, mainly originating in research and reflection papers in Nursing, Nursing Administration, Health Administration and Administration. Category 3 is characterized by knowledge about nursing care management, mainly produced in the State of Paraíba and predominantly originating in theses and review papers in Nursing Administration.

The function of concept formation, from the perspective of concept analysis as well as discursive or archeological analysis, is to describe and examine the structural and functional organization of the concept. The structural organization of the nursing care management concept, based on the above described categories, permitted the identification, nomination and classification of recurring elements, i.e. the elements that define and guarantee the discursive regularity of the enunciation field for the primary concepts management and care.

The functional organization of the nursing care management concept permitted the outlining of forms of co-existence, i.e. of the relations established between the management and care objects in the fields of presence and concomitance, which were configured by putting in practice the derivation and synthesis strategies of the primary concepts management and care.

The elaboration of the theoretical definition of the nursing care management concept in hospital contexts permitted declaring the existence of the phenomenon it refers to. Thus, the theoretical definition of the Nursing Care Management concept in Hospital Contexts described in this study is:

In its theoretical conception, nursing care management involves a dialectical relation between management know-how and care know-how. The dialectics of the term establishes a game of relations that results in a dynamic, situational and systemic process, which articulates management and care knowledge, permitting the existence of an interface between these two objects in professional practice. Nursing care management know-how is anchored in the ontological dimension, which is expressive, to the extent that it involves scientific, ethical, esthetic and personal knowledge about man’s complexity, in terms of singularities, multiplicities and individualities, and their relation and insertion in the different contexts of life. This know-how is also anchored in a technical and technological dimension, which is instrumental and involves scientific and personal knowledge, technical skill, management and care competency. Nursing care management actions are characterized by expressive and instrumental direct and indirect care actions, the articulation and interface of technical, political, politics, social, communicative, citizenship development and organizational aspects, which involve nurses’ practice in hospital contexts.

**DISCUSSION**

The nursing care management concept demonstrates a dialectical relation between management and care, instead of a dichotomy between these objects. The dialectics between the terms administering and delivering care refers to identifying the fundamental meanings of both terms and the multiple and sometimes disparate relations between them\(^{(17)}\). In this sense, the care management concept is not divided in two parts, but comprises opposing and, at the same time, approximating and comple-

<table>
<thead>
<tr>
<th>Analytic Categories</th>
<th>Object</th>
<th>Recurring elements</th>
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<tbody>
<tr>
<td>Category 1. Care: Dimensions, Actions and Interfaces with Professional Practice</td>
<td>Care</td>
<td>Knowledge, complexity, therapeutic relations, instrumental nursing care actions and expressive nursing care actions.</td>
</tr>
<tr>
<td>Category 2. Administration/Management – Historical Evolution of Teaching, Management Models and Management Practice in Health</td>
<td>Management</td>
<td>Administrative knowledge, management competency, management model, therapeutic relations, professional relations, institutional relations, instrumental management actions and expressive management actions.</td>
</tr>
<tr>
<td>Category 3. Nursing Care Management: the Nurse’s Actions in Professional Practice.</td>
<td>Nursing Care Management</td>
<td>Care process, management process, nursing care management skills, assistential models of nursing care management, instrumental nursing care management actions and expressive nursing care management actions.</td>
</tr>
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mentary meanings. The relationship between these objects constantly establishes a system of relations through discourse, constituting new knowledge.

In this perspective, Nursing care management’ know-how covers the ontological, technical and technological dimension, which characterize the expressive and instrumental actions of care management involved in nurses’ praxis at different hierarchical levels in health institutions. Dimension is considered as any level, degree or direction in which one can accomplish a study or an action\(^{(17-18)}\). Thus, the care management dimensions are the qualitative variations, degrees or directions in which direct and indirect nursing care is manifested or can be conducted.

The ontological dimension is based on the help relation for human beings and characterized by knowledge and complexity elements. Knowledge is the product of the teaching-learning process and experience, for nurses as well as other team members as well as for clients. It refers to the way man relates with the world, the context he is inserted in, how he applies the degrees of knowledge – observing, perceiving, determining, interpreting, discussing, denying and affirming\(^{(17-18)}\) and how he applies the degrees of knowledge.

Complexity is related to man’s attitude and posture in the world, as well as to the relations he establishes with people, objects and the social context he is inserted in. The individual is single and multiple, a “human complex”, a unit that displays a diversity at all levels – biological, individual and cultural\(^{(19)}\).

The technical and technological dimension of care management is characterized by a set of knowledge, tools, instruments and skills needed to organize the nursing team’s work with a view to determining the conditions needed for its maximum performance so as to reach institutional goals\(^{(3,17)}\). “Technique” is understood as any procedure ruled by a set of rules or standards, which direct and make professional activities or actions effective.

Concerning technology, some authors relate the term with the presence of equipment, machinery and cutting-edge materials, and others with technique, tool or instrument. This term also means a set of scientific knowledge that enhances the production of goods, the delivery of services and the execution of activities in a given area\(^{(20)}\).

In a broad perspective applied to Nursing, technology means a process, which includes objective and reflexive activities that are directly implied in empirical knowledge, professional experience, intuition, interaction and communication. These articulated components enhance the development of a set of knowledge that supports the organization and execution of nursing care in professional practice.

To accomplish nursing care management actions, nurses incorporate management tools and instruments to put them in practice. Tool is a term that can be defined as the “method, procedure or administrative process employed for administrative management”\(^{(20)}\), with a view to making nurses accomplish nursing care management actions correctly. In this context, the following phases of the administrative process are considered management tools nurses use in nursing care management practice: planning, execution, assessment and control. The term instrument is defined as “the means capable of obtaining a result in any field of human activity, whether practical or theoretical”\(^{(17)}\). The management instruments considered in this study are: coordination, supervision, communication, observation and delegation.

Nursing care management actions refer to instrumental and expressive direct and indirect care actions, which nurses accomplish in an integrated and articulated way, aimed at offering systemized and high-quality care to nursing service clients/users. The term “action”, when related to an activity that involves work, means operating, acting, i.e. the action is defined as a fundamental element of human activity in functional practice. In this sense, the action is related to doing, which operates theoretical knowledge, technical skills and interpersonal actions in professional activities.

Expressive actions comprise the subjective aspects that permeate the objective nursing care management activities the nurses perform, to the extent that they produce meanings and effects on the subjects’ experience and familiarity in professional, therapeutic and institutional relations. These actions influence and are influenced by the objective aspects involved in nursing care systemization and the organization of nursing team members’ work.

What characterizes instrumental actions is the accomplishment of technical activities aimed at attending to the biological needs expressed in the client’s body, and at the physical care involving this body, with a view to planning and organizing the therapeutic environment and the equipment and material needed to accomplish technical nursing procedures\(^{(21-22)}\). The instrumental actions demand empirical knowledge and technical and management skills from nurses.

**CONCLUSIONS**

This study permitted the understanding that, departing from a given, established knowledge base, something new, a concept could be created. In its creation, this concept emerged from knowledge interweaving. At the same time as it presents a hybrid texture deriving from its multiple origins, the nature of this concept displayed the capacity to dialectically integrate the aspects related to the care and management know-how.

The analysis of the conceptual system that constitutes the nursing care management concept evidenced that, when the management and care objects are derived from the territories of origin to the archeological territory
of Nursing Administration, they established a rupture, a transformation of their knowledge. This transformation inaugurated a new domain, the outlining of a new space where Nursing know-how is designed. What changed was not the object of Nursing, but the elaboration of its language, the way nurses’ discourse exists, which no longer refers only to care or management as dichotomous activities, to the extent that it incorporates multiple knowledge and practices, and starts to refer to care and management

in a dialectical way, that is, nurses’ contemporary discourse becomes that of nursing care management.

In a way, this concept still lacks validation. On the other hand, however, as it is constructed based on a national literature body that has mostly been consecrated in the knowledge areas it is part of, it reveals complete adherence to the profession. Therefore, it works as a guideline, as a reference point for new studies.

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