ABSTRACT

Objective: to analyze the application of the theory evaluation model proposed by Meleis in Brazilian studies. Method: integrative review of online articles published from 2002 to 2012 in the databases LILACS and BDENF. Results: the 16 selected studies confirmed the use of only three of the five stages proposed for Meleis’ theories analysis: Description of the Theory, Criticism of the Theory and Analysis of the Theory, with a predominance of a single unit of analysis in each. Conclusion: the analysis of nursing theories provides support to nurses in the practice, research, education and administration of the different dimensions of care. Meleis’ model figures as very important by contributing to the development of knowledge of nursing discipline, considering that its use as a method allows several reflections on theories in order that they be revalidated to support a more theoretical and practical applicability.

Key words: Nursing; Nursing Theory; Philosophy in Nursing; Nursing Models; Evaluation.

RESUMO

Objetivo: analisar a aplicação do modelo de avaliação de teorias proposto por Meleis em estudos brasileiros. Método: revisão integrativa nas bases de dados online LILACS e BDENF, de artigos publicados no período de 2002 a 2012. Resultados: das cinco fases propostas para a análise de teorias de Meleis, os 16 estudos selecionados ratificaram a utilização de apenas três delas: Descrição da Teoria, Crítica da Teoria e Análise da Teoria, com predominio de uma única unidade de análise em cada uma delas. Conclusão: a análise de teorias de enfermagem proporciona contribuições para enfermeiros na prática, pesquisa, educação e administração nas diferentes dimensões do cuidado. Esse modelo de Meleis impõe-se como de grande importância por contribuir para o desenvolvimento do conhecimento da disciplina Enfermagem, tendo em vista que a sua utilização como método permite reflexões diversas sobre as teorias, no intuito de que as mesmas sejam revalidadas para subsidiar uma maior aplicabilidade teórico-prática.

Descritores: Enfermagem; Teoria de Enfermagem; Filosofia em Enfermagem; Modelos de Enfermagem; Avaliação.

RESUMEN

Objetivo: analizar la aplicación del modelo de evaluación de teorías propuesto por Meleis en estudios brasileños. Método: revisión integradora en las bases de datos online LILACS y BDENF, de artículos publicados en el período de 2002 a 2012. Resultados: de las cinco fases propuestas para el análisis de teorías de Meleis, los 16 estudios seleccionados ratificaron la utilización de apenas tres de ellas: Descripción de la Teoría, Crítica de la Teoría y Análisis de la Teoría, con predominio de una única unidad de análisis en cada una de ellas. Conclusión: el análisis de teorías de enfermería proporciona contribuciones para enfermeros en la práctica, investigación, educación y administración en las diferentes dimensiones del cuidado. Ese modelo de Meleis se impone como de gran importancia por contribuir para el desarrollo del conocimiento de la disciplina Enfermería, teniendo en vista que su utilización como método permite reflexiones diversas sobre las teorías, con el intuito de que las mismas sean revaluadas para subsidiar una mayor aplicabilidad teórico-práctica.

Palabras clave: Enfermería; Teoría de Enfermería; Filosofía en Enfermería; Modelos de Enfermería; Evaluación.
INTRODUCTION

Nursing theory can be defined as an organized, coherent and systematic joint of a set of claims related to significant questions of a given discipline, communicated, shared in a group, in a meaningful whole, with the objective to describe the phenomena, explaining relations between them and predicting consequences or prescribing nursing care\(^1\). In this context, such theories are developed in order to reflect the interests of the scientific community and the society\(^2\).

The theory analysis/evaluation is a process of systematically examining a theory using for this flexible criteria that, in general, include: origin of the theory, meaning, adequacy, logic, utility, possibility of generalization and test. The aim is to determine the potential contribution to the scientific knowledge of the theories and to investigate their relevance and applicability to practice, research, teaching or administration of nursing. This process has been developed since the late 1960s\(^3\) as a result of the need for reflecting on nursing theories so that ideas that were raised by theories may be fully known and, moreover, they are incorporated to the practice of nurses in their various fields.

For this deepening of nursing theories happen, many analysis of theories have been developed alongside professional development. The need to deepen the knowledge on the subject fostered the interest of the authors of the present study in reflecting on how Brazilian researchers have applied the analysis of the theories and what is its contribution to the science of nursing.

Based on the reading of various proposed models, the theory evaluation model proposed by Meleis was selected to build this study in order to review the implementation of this model in the Brazilian nursing research published from 2002 to 2012.

METHOD

This is an integrative literature review on production of knowledge related to the analysis of nursing theories. This type of study enables the analysis of scientific research in a systematic and broad manner, favoring the characterization and dissemination of knowledge produced. A methodological route proposed by some scholars of methodology\(^4\) were established for the construction of this integrative review. This includes six stages: 1) identification of theme and formulation of guiding question; 2) search in literature and careful selection of researches; 3) categorization of the studies found; 4) analysis of the selected studies; 5) interpretation of results and comparisons with other researches; and 6) report of the review and synthesis of knowledge raised in the research\(^5\) (Figure 1).

This review aims to answer the following questions: Do Brazilian researchers perform analysis of nursing theories? Is the theory analysis proposed by Meleis used in Brazilian nursing research? What phase of the theory analysis proposed by Meleis is addressed in national nursing publications from 2002 to 2012? What contributions can these studies bring to the science of nursing?

Studies were searched online in articles indexed in journals of the Virtual Health Library, consulting the Latin American and Caribbean Health Sciences database (LILACS) and the Nursing Database (BDENF). As inclusion criteria, the following characteristics were adopted: publications that addressed analysis of theories from Meleis’ perspective, available in full-length as scientific paper (original or review), produced by Brazilian researchers from 2002 to 2012. The time frame purposed to cover a good representation of research addressing the theme.

The search was conducted in February and March 2013 through descriptors combined by the Boolean connector “AND”. Initially, Descriptors in Health Sciences (DeCS) “nursing theory” and “nursing models” in LILACS and BDENF databases were used and this resulted in 75 and 66 scientific papers, respectively, among which four articles were selected after reading the abstracts and checking compliance with the inclusion criteria. However, when using the descriptors “nursing theory” and “nursing”, 528 references in the LILACS database and 454 in the BDENF database were found. After a dynamic analysis and refinement of research based on the inclusion criteria, reading of titles and abstracts, 12 scientific articles were selected. Noteworthy, all papers found were simultaneously available in both databases, showing a total of 16 productions.

After this selection of articles, data of interest was gathered: year of publication; which phase of Meleis’ theories analysis is used; Periodical publication; method; objectives and main results. Data analysis was performed in two stages, with collaboration of two evaluators authors with teaching experience and who taught the course “Critical analysis of nursing theories” in

Figure 1 — Flow chart of the method: integrative literature review
the Postgraduate Program in Nursing, for a doctorate program, of the Federal University of Paraíba. In the first stage, data of the article are identified: year, title and phase of Meleis' theories analysis used (Table 1). In the second stage, articles were analyzed regarding goals, method and results, summarizing the results by similarity of content, what will be opportunely presented in the discussion ahead.

**Theories Analysis Model**

The theories evaluation model proposed by Meleis (Figure 2) consists of 5 phases: description, analysis, criticism, test and support, being very detailed to be presented in its entirety. Given that there is no theory that satisfies all the criteria proposed, this model can be applied in its entirety or in part, not being necessary to follow the order of phases[1].

![Theories Assessment Model](image)

The description phase comprises structural components that have as unit of analysis the assumptions, concepts and propositions; and functional components that include focus, client, nursing, health, environment, nurse-client interaction, nursing problems and nursing therapy[1].

The theory analysis phase is a process of identification parts and components that includes the analysis of concepts and analysis of theory. The analysis of concepts is a process useful for the development and evaluation of the theory, including the analysis of semantics, logic and contextual derivation, besides the description of antecedents and consequences of the concept. The analysis of theory involves important factors that might influence the development of the theory and its present structure, covering theoretical, paradigmatic origins and internal dimensions[1].

The phase of criticism of a theory has as objective to establish the relationship between structure and function, as well as analyze clarity, consistency, simplicity, complexity, tautology teleology, theory diagram, contagion circle (geographical origin of the theory), geographic expansion and influence of the theory), utility (in practice, research, education/training and management) and external components such as personal values, congruence with values of other professionals, congruence with social values and social significance[1].

The phase of test has to do with putting in practice, submitting to use, conducting a review. It consists actually in an inspection, a systematic process in which the theoretical proposals are submitted to the accuracy of research in all its forms and approaches. As a consequence of testing the theory is that the results of the studies may suggest changes and improvements to it. This phase is a dynamic process and provides verification of the development of the theory[2].

The support, in turn, is the phase in which the degree of extension and of acceptance of the proposed theory is evaluated, it identifies the existence of a scientific community applying this theory in situ or in different situations. Evaluate the support of a theory includes acceptance of declarations, adaptation of central problems of the discipline and recognition of new nursing phenomena[3].

**RESULTS**

The researched sources were considered diversified given that the theme addressed by the study brought up 16 scientific papers published in 10 different journals, with reasonable expressiveness in the scientific scenario according to Qualis assessment by Capes 2012.

The distribution of articles by year showed 2 publications (12.50%) in 2010; 1 (6.25%) in 2008; 3 (18.75%) in 2007; 2 (12.50%) in 2006; 3 (18.75%) in 2005; 3 (18.75%) in 2004; and 2 (12.50%) in 2003, as shown below:

Regarding the type of study, 7 (43.75%) used interpretative analysis based on the theory evaluation model proposed by Meleis; 3 (18.75%) consisted of theoretical and reflective studies based on the theory evaluation model proposed by Meleis; 2 (12.50%) were descriptive and reflective studies based on the theory evaluation model proposed by Meleis; and 4 (25.00%) were literature reviews.

Theories analyzed in these studies were: Jean Watson’s Theory of Transpersonal Caring, Madeleine Leininger’s Theory of Diversity and Universality of Cultural Care, Hildegard Peplau’s Theory of Interpersonal Relations in Nursing, and Joyce Travelbee’s Theory of Interpersonal Relationship. Each theory was analyzed in different studies. The Imogene King’s Theory of Goal Attainment, Sister Callista Roy’s Adaptation Theory, Paterson and Zderad’s Humanistic Theory, and Orem’s Self-Care Theory were studied in two articles each. In addition, two theories that have been analyzed and are applicable in
health care, not specifically only in nursing, were also analy-
yzed by the method proposed by Meleis, they are the Theory
of Reasoned Action (theory of Psychology area and applied to
Nursing) and Nola Pender’s Health Promotion Model (health
promotion model applied to Nursing).

Among the five phases proposed for theory analysis by
Meleis, studies confirmed the use of only three of them (criti-
cism, analysis and description of the theory), with a predomi-
nance of a single unit of analysis in each. However, three ar-
ticles\(^{13,20-21}\) used more than one unit of analysis, which were
Criticism of the Theory: theoretical, paradigmatic origin and internal
dimensions\(^{20}\); Description of the Theory: Functional compo-
nents and structural components\(^{21}\).

The Criticism of the theory was the phase more frequently
approached with eight studies (50.0%) followed by Description
of the theory with six studies (37.5%) and, finally, the
Analysis of the theory addressed in two studies (12.5%).

Criticism of the Theory has eight componentes according
to the exposed in the Figure 2, and two of the studies that
used it approached the utility component\(^{8,16}\); two analyzed
the diagram\(^{11,13}\); one investigated the contagion circle\(^{10}\),
two studied the clarity\(^{12-22}\), and other research used the both com-
ponents consistency and clarity\(^{13}\).

In the phase Description of the theory, six researches stood
out: three analyzed the units of the functional components of
the theory (focus, client, nursing, health, nurse-client interaction,
environment, nursing problem and nursing therapy)\(^{17,13,19}\), two

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**Box 1** - Description of national nursing publications from 2002 to 2012 according to the stage of Theory Evaluation Model
proposed by Meleis

<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Stage of the model</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>The theory of transpersonal caring in nursing: analysis according Meleis(^{7})</td>
<td>Description of the theory: functional components</td>
</tr>
<tr>
<td>2010</td>
<td>Usefulness of self-care theory in assisting the patient with Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome(^{8})</td>
<td>Criticism of the theory: utility</td>
</tr>
<tr>
<td>2008</td>
<td>Dialogue as assumption in the humanistic nursing theory: mother-nurse-newborn relationship(^{9})</td>
<td>Description of the theory: structural components (assumptions)</td>
</tr>
<tr>
<td>2007</td>
<td>Analysis of the contagion circle of the theory of rational action and its suitability to nursing(^{10})</td>
<td>Criticism of the theory: contagion Circle</td>
</tr>
<tr>
<td>2007</td>
<td><em>Sunrise Model</em>: analysis from the perspective of Afaf Meleis(^{11})</td>
<td>Criticism of the theory: Diagram</td>
</tr>
<tr>
<td>2007</td>
<td>Clarity in the use of social systems of the theory of goal attainment(^{12})</td>
<td>Criticism of the theory: clarity</td>
</tr>
<tr>
<td>2006</td>
<td>Physiological mode of the Adaptation Model of Sister Callista Roy: Reflective analysis according to Meleis(^{13})</td>
<td>Criticism of the theory: Consistency and clarity</td>
</tr>
<tr>
<td>2006</td>
<td>Functional components of Peplau theory and its confluence with the group reference(^{14})</td>
<td>Description of the theory: functional components</td>
</tr>
<tr>
<td>2005</td>
<td>Diagram Analysis of the health promotion model of Nola J. Pender(^{15})</td>
<td>Criticism of the theory: Diagram</td>
</tr>
<tr>
<td>2005</td>
<td>Analysis of humanistic theory and interpersonal relations of nurses in the care of newborns(^{16})</td>
<td>Criticism of the theory: Utility</td>
</tr>
<tr>
<td>2005</td>
<td>Understanding the King Model of the paradigm of symbolic interaction(^{17})</td>
<td>Analysis of the theory: paradigmatic origin</td>
</tr>
<tr>
<td>2004</td>
<td>Roy model in obstetric nursing: analysis from the perspective of Meleis(^{18})</td>
<td>Description of the theory: structural components</td>
</tr>
<tr>
<td>2004</td>
<td>Applying Meleis evaluation model to Travelbee theory(^{19})</td>
<td>Description of the theory: functional components</td>
</tr>
<tr>
<td>2004</td>
<td>King’s theory and its interface with “Family Health”(^{20})</td>
<td>Analysis of the theory: The theorist, paradigmatic origin and internal dimensions</td>
</tr>
<tr>
<td>2003</td>
<td>Descriptive analysis of the Orem’s nursing systems theory: applicability in teaching eye self-examination of HIV / Aids patients(^{21})</td>
<td>Description of the theory: functional components and structural components</td>
</tr>
<tr>
<td>2003</td>
<td>Humanistic theory: semantic analysis of the concept of Community(^{22})</td>
<td>Criticism of the theory: Clarity</td>
</tr>
</tbody>
</table>
analyzed structural components, and other used both the functional and structural components for the analysis. Analysis of the Theory was addressed in two studies. One study strongly focused on the specific unit of paradigmatic origin and the other focused on the analysis of corresponding units to the theoretical, the paradigmatic origin and the internal dimensions.

The results described in the publications are presented in categories: Description of the Theory, Criticism of the Theory and Analysis of the Theory.

**DISCUSSION**

**Description of the Theory**

It is the stage where relevant conceptual elements to central ideas of a theory can be identified. In this context, three theories of Nursing were analyzed at this phase in its unit “functional components”: Theory of Transpersonal Caring, Peplau’s Theory of Interpersonal Relations and Travelbee’s Theory of Interpersonal Relationship. These studies, were able to identify definitions of functional components of the analyzed theories, offering scholars who applied the Meleis method a more accurate view of these theories to assess their applicability in the academic and healthcare practice, reviewing the clientele that can be benefited from them, as well as realizing the need to improve the practice of nursing from its use.

As regards structural components of the description phase, the Humanistic Theory of Paterson and Zderad was analyzed from the perspective of the unit “assumptions of the theory”, with the assumption (the dialogue) seen in theory as explicitly and grounded on the philosophical bases of existentialism, humanism and phenomenology. Based on research findings using this theory, it was noted that this is applicable when it gives priority to effective human relationships, specifically addressed in the study to investigate the mother-nurse-newborn relationship.

The Roy’s Adaptation Theory was also analyzed for the unit “structural component” (assumptions, concepts and propositions) and its application in obstetric nursing. It was considered relevant to the understanding of situations experienced by women during labor, childbirth and postpartum. Assumptions and propositions proposed by Roy are adaptable to these clients and their concepts, even when implicit at certain times.

A single study addressed the functional and structural components at the same time. It purposed to analyze the theoretical model proposed by Orem and it was applied to the self-examination of the eye for people with HIV/AIDS, a theme addressed in the study because studies prove that 75% of these individuals have some ophthalmic injury during the course of the disease. With respect to structural components, a reflection focused on the concepts of self-care, therapeutic demand and nursing system was held. As for functional components, ocular self-examination, the individual with HIV/AIDS, the nurse, the examination of the eye and the nurse-client interaction were analyzed. On the basis of the evaluation of these components, the study developed some propositions and assumptions and reflect that the individual is the agent of self-care and that actions proposed by the nurse should be implemented taking into account the biopsychosocial context of the client, confirming thus the applicability this theoretical model for the eye self-examination of patients with HIV/AIDS.

**Criticism of the theory**

Several criteria can be observed to proceed with criticism of a theory: to establish a relationship between the structure and function of its components (clarity, consistency, degree of simplicity and complexity, tautology/teleology); diagram of the theory; contagion circle; utility and external components. Two articles analyzed the utility of theories what means a component that analyzes the potential of a theory to be used in practice, research, education and administration. Another theory that has been critically examined for its utility was the Humanistic Theory of Paterson and Zderad in relation to the concepts of interpersonal relationship and dialogue in caring for newborn at risk. The utility of these concepts was notorious and can be practiced in the daily Intensive Care Unit, that is, in practice, valuing the human affective relationship and regarded as essential in the act nursing care.

The “contagion circle” component was used in just one article. The unit of analysis is the geographical origin of the theory and the influence of theoretical versus theory and investigates the field where the theory was initially introduced, the influence of the theorist in its implementation, where its development has happened and what is its purpose in research, education, administration or clinical practice. The evaluation of the Theory of Rational Action (TRA) with respect to adequacy for Nursing in relation to that component and showed that this is especially appropriate to the performance of behaviors for health. However, as its ultimate goals are to understand and predict human behavior, its intended use can happen in any field of knowledge: education, sociology, health, among others. The results of this study portrayed their applicability predominantly in the areas of nursing, psychology and nutrition as a possible tool for identifying factors that act as positive or negative determinants influencing the performance of a given behavior.

As for the “diagram” unit, two articles analyzed theories to prove that the visual representation is a primary factor that improves the clarity and understanding of a theory. In this sense, the diagram is intended to illustrate the central proposal of the theory, highlight the key concepts, check whether the representation is logical, promote understanding of different theoretical components and assure that the link between concepts are clear.

Theories analyzed for diagram were the Pender’s Health Promotion Model and the Theory of Cultural Care, which made possible the application of the theory analysis model. The studies allowed us to understand the key issues
highlighted in each theory diagram as well as the possibility of assessing the weaknesses perceived when using the theory evaluation model, promoting the increase of knowledge about theoretical references to nurses.

The Imogene King’s Theory of Goal Attainment was analyzed within the aspect criticism of the theory for clarity of organization of social systems. To this end, the concept of social system and its components as well as its assumptions, propositions and related concepts were identified. The study was based on two theses and one dissertation and addresses the lack of adherence to hypertensive treatment describing the responses of non-compliant patients and relating them to personal, interpersonal and social systems of King. A care technology to patients with difficulty to comply with the treatment was later developed and evaluated in a doctoral dissertation favoring the individual, interpersonal, and family participation in care. The second thesis tried to establish a diagnostic profile of responses of adolescents facing vital crisis of adolescence and premarital pregnancy. Operational definitions were consistent with the assumptions and propositions of the Theory of Goal Attainment in the three surveys. Although the theory favors its applicability in such diverse contexts, interpersonal and social systems were too closely related, blurring the clarity and understanding of the way the theory can contribute to professional practice.

The physiological mode of Sister Callista Roy’s adaptation model underwent critical analysis regarding clarity and consistency. It was found that this theory has relevant aspects as its applicability to nursing care for women with angina pectoris as well as for the development of nursing knowledge in the areas of teaching, research and care. Believing that the concepts and definitions are fundamental to the understanding of a theory, and that they pose challenges to the practice of nursing as to the clarity of its theoretical and operational definitions, the research sought to critically reflect on the semantic clarity of the concept of community, one of the foundations of the Humanistic Nursing Theory. The initiating words I-YOU, I-THAT and WE proved to be important in the practice of humanistic nursing when the objective is to focus on human interaction in the living world. While the relationship WE characterizes the phenomenon community or communion, from the perspective of theoretical and equivalent terms, the researchers see them as diametrically different since the community features a physical nursing phenomenon essentially “on the ground” rather than inter-subjective such as communion, seized in its fullness as the perfect union of the first words I-YOU originating the US, resulting from dialogue, encounter, relationship and authentic presence.

**Analysis of the Theory**

The critical analysis of nursing theories reveals critical thinking of researchers for the development of future research based on nursing theories, providing support to nurses in practice, research, education and administration in the different dimensions of care in nursing.

The conceptual model of King was analyzed for its paradigmatic origins according to the approach of the theory of symbolic interaction. The paradigmatic origins seek to identify the origins Meleis’ Nursing Theories Evaluation: integrative review
REFERENCES


