

# Development of middle-range theories in nursing

*Desenvolvimento das teorias de médio alcance na enfermagem*

*Desarrollo de las teorías de medio alcance en enfermería*

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## ABSTRACT

**Objective:** To identify in the literature how Middle-Range Theories (MRT) are being developed in Nursing. **Method:** Integrative review on the databases Lilacs (Latin American and Caribbean Literature in Health Sciences), Scopus, Cinahl (Cumulative Index to Nursing and Allied Health Literature), Web of Science and PubMed portal, using the keywords *middle range theory* and *nursing*, as well its Portuguese correspondents (Lilacs), and the Boolean operator AND. The sample included 25 articles. **Results:** All articles presented concepts related to MRT. Most developed a synthesis picture. Some theories have formulated specific propositions, hypotheses, and names. Only 16 articles cited the methodological framework, while 22 used theories or models for theoretical foundation and 11 carried out literature reviews. **Final considerations:** The development of MRT included the presentation of fundamental concepts, synthesis, propositions, hypotheses and specific name. The MRT is recognized as a way of developing knowledge to guide the nursing practice.

**Descriptors:** Nursing; Nursing Theory; Review; Knowledge; Nursing Methodology Research.

## RESUMO

**Objetivo:** Identificar na literatura como as Teorias de Médio Alcance (TMA) têm sido desenvolvidas na enfermagem. **Método:** Revisão integrativa nas bases Lilacs (Literatura Latino-Americana e do Caribe em Ciências da Saúde), Scopus, Cinahl (Cumulative Index to Nursing and Allied Health Literature), Web of Science e portal PubMed, utilizando a palavra-chave *middle range theory*, o descritor *nursing*, seus correspondentes em português (Lilacs) e o operador booleano AND. A amostra incluiu 25 artigos. **Resultados:** Todos os artigos apresentaram conceitos relacionados às TMA. A maioria desenvolveu quadro síntese. Algumas teorias formularam proposições, hipóteses e nomes específicos. Apenas 16 artigos citavam o referencial metodológico, enquanto 22 usavam teorias ou modelos para fundamentação teórica e 11 utilizavam revisão na literatura. **Considerações finais:** O desenvolvimento das TMA incluiu apresentação de conceitos fundamentais, quadro síntese, proposições, hipóteses e nome específico. Reconhece-se as TMA como forma de desenvolver conhecimento para orientar a prática de enfermagem.

**Descritores:** Enfermagem; Teoria de Enfermagem; Revisão; Conhecimento; Construção.

## RESUMEN

**Objetivo:** Identificar en la literatura cómo las Teorías de Medio Alcance (TMA) se están desarrollando en enfermería. **Método:** Revisión integrativa en las bases de datos: LILACS (Literatura Latinoamericana y del Caribe en Ciencias de la Salud), Scopus, Cinahl (*Cumulative Index to Nursing and Allied Health Literature*), Web of Science y PubMed, utilizando la palabra clave *middle range theory*, el descriptor *nursing* y sus equivalentes en portugués (LILACS) y el operador booleano AND. La muestra constó de 25 artículos. **Resultados:** Todos los artículos presentaron conceptos relacionados con las TMA. La mayoría desarrolló un cuadro resumen. Algunas teorías presentaron proposiciones, plantearon hipótesis y nombres específicos. Solamente 16 artículos citaban el referencial metodológico, mientras que 22 utilizaban teorías o modelos en la fundamentación teórica y 11 hicieron revisión de la literatura. **Consideraciones finales:** El desarrollo de las TMA incluyó la presentación de conceptos fundamentales, de cuadro resumen, de proposiciones, hipótesis y nombre específico. Se reconocen las TMA como forma de desarrollar conocimiento para orientar la práctica en enfermería.

**Descriptor:** Enfermería; Teoría de Enfermería; Revisión; Conocimiento; Construcción.

## INTRODUCTION

Theories are sets of concepts that are less broad than conceptual models and that propose more specific results. However, these theories may vary according to their level of abstraction and scope; great theories are relatively broad, while the Middle-Range Theories (MRT) address a less abstract and more specific set of concepts for the details of the nursing practice<sup>(1)</sup>.

MRTs are intermediate theories that arise due to the researchers' need for developing a unified theory capable of explaining all the observed uniformities of behavior, organization, and social changes. They do not seek to explain the whole in a single theory, but seek to develop explanations for the parts that make up the whole, hence the term "middle range"<sup>(2)</sup>.

The use of MRTs linking theoretical and empirical knowledge can be useful for the development of new knowledge. Based on larger theories or using part of a theory, MRTs are composed of concepts and suggest relationships between them that can be represented in a single model.

In Nursing, a MRT is defined as a set of related ideas that are focused on a specific dimension of a phenomenon, including a restricted number of concepts and propositions, described at a concrete level, that are directly linked to research and practice<sup>(3)</sup>.

There are three types of MRT in Nursing, classified according to their purpose, namely: descriptive, explanatory and predictive<sup>(4)</sup>. The first describes or classifies a phenomenon, such as the taxonomy of nursing diagnoses that organizes the phenomenon of nursing from a simple concept (nursing diagnosis). The explanatory one involves the relationship between many concepts that are concerned with the form and extension of the existing relations between them, which is exemplified in the Outcome-Present state-Test (OPT) clinical reasoning model. Finally, the predictive MRT seeks to establish the precise relationships between concepts or effects of one or more concepts in one or several concepts, with the purpose of describing how changes occur within a phenomenon (causality models)<sup>(5)</sup>.

The development of MRTs, both worldwide and nationally, is still limited. In Brazil, few studies have addressed the issue; however, some authors have already made important contributions to the construction of nursing MRTs and, thus, to guide the nurses' practice<sup>(6-7)</sup>. At the global level, there are specific research groups dealing with the development of MRTs based on grand theories and some journals specializing in studies on the use of specific theoretical approaches to Nursing<sup>(8)</sup>. However, these journals include articles ranging from discussions on the Nursing meta-paradigm to the development of MRT. In addition, the approaches to building such theories seem to follow different patterns among different authors. In any case, MRTs have been proposed as a way to reduce the gap between nursing theory and practice and as an alternative to other movements, such as evidence-based practice and translational research.

## OBJECTIVE

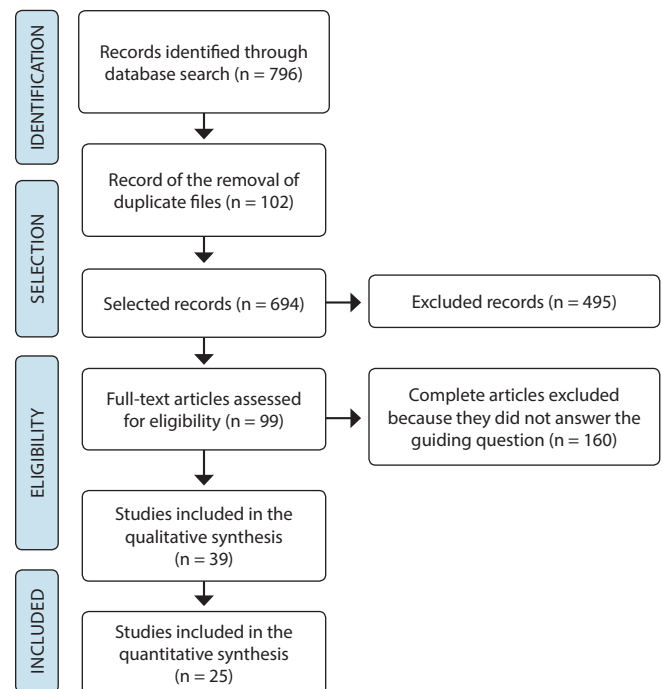
To identify, in the literature, how MRTs are being developed in Nursing.

## METHOD

This is an integrative review based on six steps: 1) identification of the theme and elaboration of the guiding question; 2) establishment of criteria for the inclusion and exclusion of studies/sampling or literature search; 3) definition of the information to be extracted from the selected studies/categorization of the studies; 4) evaluation of studies included in the integrative review; 5) interpretation of results, and 6) presentation of the knowledge review/synthesis<sup>(9)</sup>.

For the first stage of the review, the following research question was elaborated: how are MRTs being developed in Nursing?

The search in the databases Lilacs (Latin American and Caribbean Literature in Health Sciences), Scopus, Cinahl (Cumulative Index to Nursing and Allied Health Literature), Web of Science and PubMed was carried out by two members of the research team from May to June 2016, using the keyword *middle-range theory*, the descriptor *nursing*, and the Boolean operator AND. The selection of this keyword occurred due to the inexistence of a controlled descriptor that specifically represented the MRT. For the Lilacs database, the corresponding terms in Portuguese (teoria de médio alcance; enfermagem) were used. The inclusion criteria adopted were: articles published in full and electronically available, in Spanish, English or Portuguese, and that answered the research question. Repeated articles were excluded. Searches description and article selection were based on the Preferred Reporting Items for Systematic Review and Meta-Analysis (Prisma), according to the following flowchart (Figure 1).



**Figure 1** – Articles selected for review, based on the Preferred Reporting Items for Systematic Review and Meta-Analysis (Prisma)

Articles were selected by reading the title and abstracts and, then, the full article. The final selection included 25 articles that met the inclusion criteria – 20 of them in the Scopus database, one in the Web of Science, one in Cinahl and three in the PubMed

portal. No articles were identified during the search on Lilacs. As most articles were theoretical, they were not classified according to the level of scientific evidence.

The following information was extracted from the selected studies: journal; language; year of publication; contributions; study object; main results and how the theory was developed. Finally, the results identified were compiled in a chart and later discussed.

## RESULTS

In this study, we analyzed the 25 scientific articles on MRT that strictly followed the previously mentioned sample selection and, following, a summary table of those articles will be presented, according to year of publication, authorship, object of study, main results and theory development (Chart 1).

**Chart 1** – Synthesis of articles selected in the review according to year of publication, authorship, object of study, main results and theory development

Authors/year	Object of study	Main outcomes of the study	How the middle-range theory was developed
Dobratz <sup>(10)</sup> , 2016	Population in general, especially vulnerable groups such as the elderly and adolescents.	Six propositions on the relationship between spirituality and key concepts identified and three hypotheses, in addition to the conceptual definition of adaptive spirituality. middle-range theory of adaptive spirituality.	Based on the middle-range theory described by Roy, using the Roy Adaptation Model and literature review for the construction of the middle-range theory.
Lopes, Silva and Herdman <sup>(5)</sup> , 2015	-	Synthesis picture of the relationship between the nursing diagnosis elements and the nine propositions for them. middle-range theory of causality in nursing diagnosis.	Based on the medium-range theory described by Roy, using the models of diagnostic reasoning, validation of nursing diagnoses and causal epidemiological models.
Fearon-Lynch and Stover <sup>(11)</sup> , 2015	People with diabetes <i>mellitus</i> .	Synthesis picture of the relationships between the key elements and three propositions. middle-range theory for diabetes self-care.	Proposes a new middle-range theory and merges two existing theories, namely: the domain theory and the organicist integration theory. Used Walker and Avant to provide conceptual clarity.
Payne <sup>(12)</sup> , 2015	-	Synthesis picture on the relationship between the concepts involved and six propositions. Middle-range theory of the Intuitive Decision-Making in Nursing.	Developed through the use of Walker and Avant's Theory synthesis, the synthesis between Damasio's "Hypothesis of somatic markers" and Benner's theoretical framework "From beginner to expert", as well as empirical evidence derived from research.
Pickett, Peters e Jarosz <sup>(13)</sup> , 2014	Risk population for obesity.	Synthesis picture of the relationships between the concepts involved, eight hypotheses and four propositions. Middle-range theory of weight management.	Derived from Orem's self-care theory and literature research.
Elo et al. <sup>(14)</sup> , 2013	Older people.	Hypothetical model in a synthesis picture, three hypotheses. Theory with good results of reliability and validity. middle-range theory of physical environment to support the well-being of older home residents.	Follows adapted steps of the stages of formation of a Lauri and Kyngas's theory; clinically tested in older adults.
Phillippi e Roman <sup>(15)</sup> , 2013	Pregnan Women.	Synthesis picture with the concepts and their relations. Middle-range theory of motivation-facilitation of access to prenatal care.	Developed from Lewin's great theory of human behavior. Employed a literature review.
Riegel, Jaarsma and Stromberg <sup>(16)</sup> , 2012	People with chronic diseases (self-care).	Synthesis picture, three hypotheses and seven propositions. middle-range theory of self-care for chronic diseases.	Derived from Orem's self-care theory and literature research.
Castillo-Arcos, Benavides-Torres <sup>(17)</sup> , 2012	Adolescents.	Synthesis picture of relationships between the main concepts and five propositions. Middle-range theory of sexual resilience in adolescents.	Derived from a model of resilience in adolescents and followed five steps of Fawcett's theoretical method of derivation for the development of the middle-range theory.
Dobratz <sup>(18)</sup> , 2011	-	Three propositions, four hypotheses and synthesis picture with the conceptual-theoretical structure. Middle-range theory of psychological adaptation in death and dying.	Derived from the conceptual-theoretical framework of Roy's Adaptation Model and a literature review.
Davidson <sup>(19)</sup> , 2010	Families of patients hospitalized in intensive care units.	Synthesis picture of the relationships between the elements of the middle-range theory and the set of specific nursing actions improve the understanding of families. Middle-range theories to assist family members of patients in the intensive care unit.	Developed through literature review and Weick's organizational theory of understanding, as well as Roy's Adaptation Model.
Reimer and Moore <sup>(20)</sup> , 2010	Flight nurses.	Synthesis picture; nine concepts; five propositions. middle-range theory of the in-flight nursing experience.	Developed based on Walker and Avant's theory of empirical evidence and a bibliographic research.

Continua

Continuação do Quadro 1

Authors/year	Object of study	Main outcomes of the study	How the middle-range theory was developed
Murroc and Higgins <sup>(21)</sup> , 2009	Adults exposed to music as a form of therapy.	Synthesis picture of the relationships between concepts and table with definitions and how to measure them. Middle-range theory of music, humor and movement.	Developed from the physical activity guidelines and musical theory, using the strategies of synthesis of statements and Walker and Avant's theory synthesis, as well as a literature review.
Covell <sup>(22)</sup> , 2008	-	Synthesis picture of the relationships between the elements of the middle-range theory; five propositions. Middle-range theory of the nursing intellectual capital.	Developed using the concept and derivation strategies of the theory described by Walker and Avant, literature review and intellectual capital theory.
Noiseux and Ricard <sup>(23)</sup> , 2008	People with schizophrenia, family members and health professionals.	Understanding of the interaction dynamics between the reciprocal influences of microscopic and macroscopic elements in the schizophrenia recovery process. Middle-range theory of the recovery of people with schizophrenia.	Based on a grounded theory and on the concept of Human Responses of the American Nurses Association.
Dunn <sup>(24)</sup> , 2004	People with chronic pain.	Synthesis picture of the relationships between concepts, six hypotheses and five propositions. Middle-range theory of adaptation to chronic pain.	Developed based on the methodology described by Merton, using Roy's Adaptation Model and a literature review.
Mefford <sup>(25)</sup> , 2004	Preterm newborns.	Synthesis picture and eight propositions. Middle-range theory of health promotion for preterm infants.	Developed based on the theoretical synthesis process described by Walker and Avant and the Levine conservation model.
Tsai <sup>(26)</sup> , 2003	Caregivers of people with chronic diseases.	Synthesis picture of the relationships between the elements of the theory, four hypotheses and 11 propositions. Middle-range theory of the caregiver's stress.	Developed based on Roy's Adaptation Model.
Whittemore and Roy <sup>(27)</sup> , 2002	People with diabetes mellitus.	Synthesis picture of the relationships between the elements of the theory and six propositions. Middle-range theory of adaptation to diabetes mellitus.	Developed based on Roy's Adaptation Model, in the adaptation of the Chronic Disease Model to patients with diabetes mellitus, literature search and relevant empirical evidence.
Sanford <sup>(28)</sup> , 2000	Population in general (patient education).	Synthesis picture of the relationships between the elements of the middle-range theory, definitions of concepts and five propositions. Middle-range theory for patient education.	Developed from the philosophical and theoretical perspectives of two fields: Nursing and Education; and from the recommendations of Liehr and Smith for the development of middle-range theory.
Jirovec et al. <sup>(29)</sup> , 1999	-	Synthesis picture of the relationships between the elements of the middle-range theory of urine control.	Developed based on Roy's Adaptation Model.
Huth and Moore <sup>(30)</sup> , 1998	Infants and children with acute pain.	Synthesis picture with synthesis of the relationships between the elements of the middle-range theory and three propositions. Table with definitions and ways to measure the main concepts. Middle-range theory of acute pain management in infants and children.	Developed from methodological strategies described by Walker and Avant and by Good and Moore; theoretical assertions were derived from the content of the Guidance Panel for Acute Pain Management.
Olson and Hanchett <sup>(31)</sup> , 1997	-	Three propositions, three hypotheses, synthesis picture with the concepts of the Orlando model, of the middle-range theory and of the empirical indicators used to measure each concept. Middle-range theory on nurse-patient empathy. Clinically tested.	The middle-range theory resulted from Orlando's theory and from a correlational research between nurses and patients.
Good and Moore <sup>(32)</sup> , 1996	Adults with acute pain.	Synthesis picture of the relationships between the elements of the middle-range theory, table with definitions and ways of measuring the main concepts involved and three propositions. Middle-range theory on acute pain.	Relied on Walker and Avant, using a guide for acute pain management.
Thompson et al. <sup>(33)</sup> , 1989	Obstetrical nurses.	Presents the concepts and the relationships among them. Middle-range theory of the obstetric nursing care process.	Developed from the Philosophy of the American College of Nurse-Midwives and Fawcett's notes.

The articles analyzed were published between 1989 and 2016. Of these, 24 were published in English<sup>(5,10-16,18-33)</sup> and only one in Spanish<sup>(17)</sup>. Most of the articles were published in general nursing journals<sup>(5,10-13,16-29,31-32)</sup>, in nursing journals related to a specific context<sup>(15,30,33)</sup> and in medical journals<sup>(14)</sup>. As to the place where the studies were developed, we identified 19 in the United States<sup>(10-13,15-16,18-21,24-30,32-33)</sup>, three in Canada<sup>(22-23,31)</sup> and only one in Brazil<sup>(5)</sup>, Mexico<sup>(17)</sup> and Finland<sup>(14)</sup>.

Regarding the development of MRT in nursing, the studies point out their contributions. All the studies analyzed emphasize that theories can contribute to the nursing practice. In 16 theories, it was mentioned its importance for the development of research<sup>(5,11-16,20-21,23-25,27-30)</sup> and only two were referred to as important for nursing teaching<sup>(5,12)</sup>.

Some MRTs (n = 18) are directed to specific groups, such as: older adults, adolescents, children, adults, pregnant women, families,

obstetrics nurses, flight nurses, hospitalized people, people with chronic illnesses and specific diseases (diabetes, obesity, chronic pain, acute pain and schizophrenia)<sup>(11,13-17,19-27,30,32-33)</sup>.

The main results found in the developed MRTs included: presentation of fundamental concepts, synthesis picture, propositions, hypotheses and specific name for theories. Of the analyzed articles, most (n = 22) developed a synthesis picture with the conceptual framework, presenting the relationships between the main concepts involved in the theories<sup>(5,11-22,24-32)</sup>. Some theories formulated specific propositions (n = 18), whose number ranged from 11 to three<sup>(5,10-13,16-18,20,22,24-28,30-32)</sup>. Regarding the hypotheses formulated (n = 8), we identified that they are usually presented at the end of the articles, and the number of hypotheses for each theory ranged from three to eight<sup>(10,13-14,16,18,24,26,31)</sup>.

After their development, the MRTs were named or directed to a specific context, namely: nursing diagnosis<sup>(5)</sup>; intuitive decision-making in Nursing<sup>(12)</sup>; weight management<sup>(13)</sup>; physical environment to support the well-being of older adults<sup>(14)</sup>; family coping<sup>(19)</sup>; in-flight nursing experience<sup>(20)</sup>; music, humor and movement<sup>(21)</sup>; intellectual capital of nursing<sup>(22)</sup>; health promotion for preterm infants<sup>(25)</sup>; patient education<sup>(28)</sup>; urine control<sup>(29)</sup>; nurse-patient empathy<sup>(31)</sup>; obstetric nursing<sup>(15,33)</sup>; chronic diseases<sup>(11,16,23,27)</sup>; pain<sup>(24,30,32)</sup>, and psychological aspects<sup>(10,17-18,26)</sup>.

Finally, we identified that 16 articles cited the methodological framework that had been followed<sup>(5,10-12,14,17,20-25,28,30,32-33)</sup>, 22 used theories or models for theoretical foundation<sup>(10-13,15-19,21-33)</sup> and 11 used literature review for the development of MRT<sup>(10,13,15-16,18-22,24,27)</sup>. Among the authors used as a methodological reference, Walker and Avant (1995; 2005; 2011) were the most frequent<sup>(11-12,20-22,25,30,32)</sup>, followed by the methodology described by Roy (2013)<sup>(5,10)</sup> and by Fawcett (1986)<sup>(17,33)</sup>. Roy's Model of Adaptation was the most adopted for theoretical basis<sup>(10,18-19,24,26-27,29)</sup>, followed by Orem's theory of self-care<sup>(13,16)</sup>.

## DISCUSSION

Middle-range theories are understood by many nursing researchers as a theoretical framework that connects grand theories to the nursing practice<sup>(34)</sup>. They started to be developed in the mid-1980s – one of the first MRTs in nursing was the Theory of Obstetric Nursing Care, which identified seven original concepts to describe the process of obstetric nursing care<sup>(33)</sup>.

All the analyzed articles clearly presented the main concepts involved in the theories. It should be emphasized that the concepts and their definitions are the main components that should be explained during the development of a theory, regardless of its level<sup>(3)</sup>. Therefore, the description of the terms used to write a phenomenon is essential during the MRT development since the inclusion of concepts will provide the nurses with a concise summary of the thoughts related to the phenomena of interest<sup>(34)</sup>.

The presentation of the synthesis picture developed in most of the studies<sup>(5,11-22,24-32)</sup> is an intellectual construction, a picture of reference that allows organizing observations, interpreting them and suggesting research hypotheses<sup>(35)</sup>. Such model incorporates a set of specific, coherently organized and interrelated terms that serve for nurses to guide care in practice. Thus, the caregiving actions is developed around a structure based on critical thinking

or on the problem-solving process<sup>(36)</sup>.

Therefore, it is perceived that, in developing an MRT, the synthesis picture is an important item because its presentation allows nurses to understand what is happening in practice, critically organizing information, in addition to elucidating the relationships between the main concepts of theories. It is worth mentioning the graphic representation of the main elements of MRT can be called synthesis picture, pictogram, figure or diagram.

Another important aspect in developing a theory is the establishment of its propositions. Hence, we noticed that most MRTs developed in Nursing present propositions<sup>(5,10-13,16-18,20,22,24-28,30-32)</sup>. These are important elements of a theory because they compose the descriptive statement of the properties and dimensions of a concept or statement that links two or more concepts. They provide the theory with the power to describe, predict or explain<sup>(34)</sup>. Overall, propositions present what the theory concludes.

After propositions, the hypotheses of a theory can be presented. MRTs work with the establishment of hypotheses to present how previously established propositions can be tested, as identified in some studies<sup>(10,13-14,16,18,24,26,31)</sup>.

We identified that most authors of the articles under analysis gave a name to the developed theory, although some did not present it directly. The attribution of a name to the theory is important since it facilitates the identification of the MRT by professionals and researchers. Naming a theory is a challenge, as it is the etiquette of research orientation. However, it is essential that MRTs be named in the context of the proposed disciplinary approach.

Thus, MRTs can be applied to a variety of subpopulations. For example, a middle-range theory can be applied in urban or rural centers, in native or immigrant groups<sup>(37)</sup>. Therefore, it is believed the authors did not develop specific names for the MRTs in their research because these are nursing theories geared towards the general public and/or nurses, thus not having a specific population for the theory created.

Regarding the use of theoretical framework, methodological basis and/or literature review in the development of MRT, we noticed the authors of the articles under analysis were supported by different references. However, the form of elaboration and the main results are similar between them. On this, it is emphasized that, based on the description and analysis of the MRT construction, some recommendations were identified for its development: one should try to explain the name of the theory and the method used to generate it; try to clarify the conceptual links of the theory in a diagrammed model; to articulate the research links to the practice of theory, and to create an association between the proposed theory and a disciplinary perspective in Nursing, seeking that the MRT is ahead of nursing practice and research for a more in-depth and critical analysis<sup>(38)</sup>. It is worth emphasizing that the development of propositions are also important results of a theory.

Given the items presented, one can noticed the first three recommendations were followed by the authors when developing their theories, as all articles analyzed described the method used to generate them, as well as presented the fundamental concepts; 22 articles explained the conceptual links of theory in a diagrammed model, and some showed the relationship of the

research with the practice of the theory. However, we noticed the association between the proposed theory and a disciplinary perspective in nursing is still deficient, and the MRT is not ahead of the nursing practice and research.

Therefore, a unique methodology was not identified among the analyzed articles with specific recommendations on the mandatory items for the creation of a MRT. Each researcher selects their theoretical and methodological foundation to build a specific theory. However, it is recommended that at least three important elements be presented: main concepts, diagram model and propositions, considering these items were frequently shown in the studies analyzed.

Only two studies tested the developed theories<sup>(14,31)</sup>, while most research suggests that theories are subsequently tested on specific populations. It should be noted that the authors may have tested the theories and published the results in other manuscripts. Therefore, the conduction of a study to identify which theories were further tested and what were their results is suggested.

This study becomes important because it synthesizes in the results how the MRT are developed in the field of Nursing. Thus, the essential components that should compose the structure of a theory and the main methods used in research were clarified.

## Study limitations

As a limitation of the study, we have the number of databases used, given the possibility of identifying complementary information in studies indexed in other databases.

## Contributions to the field of Nursing, Health or public policy

Knowing the structure of a MRT can contribute to the advancement of nursing as an academic discipline and profession, as the main characteristic of this type of theory is the provision of substantive knowledge to practice.

## FINAL CONSIDERATIONS

Overall, the development of MRTs identified in the studies analyzed included: presentation of fundamental concepts, synthesis picture, propositions, hypotheses and specific names for theories. Therefore, the MRT is recognized as a means to face the challenge of developing a substantial body of knowledge to guide the nursing practice.

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