



RESEARCH ARTICLE (ORIGINAL) 

## Nursing diagnoses in hospitalized elderly patients based on Kolcaba's Comfort Theory

*Diagnósticos de enfermagem em idosos hospitalizados à luz da teoria do conforto de Kolcaba*

*Diagnósticos de enfermería en ancianos hospitalizados según la teoría del confort de Kolcaba*

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**Abstract**

**Background:** Nurses should implement actions that promote comfort in elderly patients hospitalized in Intensive Care Units (ICUs).

**Objective:** To identify nursing diagnoses (NDs) in hospitalized elderly patients in an ICU; to categorize diagnoses according to the dimensions of comfort (physical, psychospiritual, sociocultural, and environmental) in Kolcaba's theory.

**Methodology:** Cross-sectional study. Analysis of the 103 clinical records of elderly patients admitted to an ICU of a hospital located in Rio de Janeiro, Brazil, between 1 January and 31 December 2019.

**Results:** The median age was 82 years, and 58.25% of elderly patients were women. A total of 1,140 NDs were identified and distributed across 26 titles and six domains of NANDA-I Taxonomy. Of the 26 titles, 80.77% were categorized as belonging to the dimension of physical comfort, 11.54% to sociocultural comfort, 3.58% to environmental comfort, and 3.58% to psychospiritual comfort.

**Conclusion:** The integration of a theory into the nursing process may assist nurses in identifying and implementing comfort measures in all dimensions for hospitalized elderly patients.

**Keywords:** nursing theory; nursing process; nursing diagnosis; patient comfort; nurses improving care for health system elders

**Resumo**

**Enquadramento:** É fundamental que o enfermeiro incorpore ações para a promoção do conforto ao idoso nas unidades de terapias intensivas (UTI).

**Objetivo:** Identificar os diagnósticos de enfermagem (DE) em idosos hospitalizados numa UTI; categorizar os diagnósticos conforme as dimensões do conforto (Física, Psicoespírita, Sociocultural e Ambiental) da teoria de Kolcaba.

**Metodologia:** Estudo transversal. Foram analisados 103 registos clínicos de idosos internados entre 01/10/2019 e 31/12/2019 numa UTI de um hospital, localizado na cidade do Rio de Janeiro, Brasil.

**Resultados:** A mediana da idade dos idosos foi de 82 anos e 58,25% eram do sexo feminino. Foi identificada a frequência de 1140 DE distribuídos em 26 títulos e seis domínios da taxonomia NANDA-I. Dos 26 títulos de diagnósticos, 80,77% foram categorizados como pertencentes à dimensão do conforto físico, 11,54% ao conforto sociocultural, 3,58% ao conforto ambiental e 3,58% ao conforto psicoespírita.

**Conclusão:** A incorporação de teoria ao processo de enfermagem poderá auxiliar o enfermeiro na identificação e implementação de medidas de conforto em todas as dimensões ao idoso hospitalizado.

**Palavras-chave:** teoria de enfermagem; processo de enfermagem; diagnóstico de enfermagem; conforto do paciente; cuidado de enfermagem ao idoso hospitalizado

**Resumen**

**Marco contextual:** Es esencial que el enfermero incorpore acciones para promover el confort de los ancianos en las unidades de tratamientos intensivos (UTI).

**Objetivo:** Identificar los diagnósticos de enfermería (DE) en pacientes ancianos en una UTI; categorizar los diagnósticos según las dimensiones del confort (física, espiritual, sociocultural y ambiental) de la teoría de Kolcaba.

**Metodología:** Estudio transversal. Se analizaron 103 registros clínicos de ancianos internados entre el 01/10/2019 y el 31/12/2019 en una UTI de un hospital localizado en la ciudad de Río de Janeiro, Brasil.

**Resultados:** La edad media de los ancianos era de 82 años y el 58,25% eran mujeres. Se identificó la frecuencia de 1140 DE distribuidos en 26 títulos y seis dominios de la taxonomía NANDA-I. De los 26 títulos de diagnóstico, el 80,77% se clasificó como perteneciente a la dimensión de confort físico, el 11,54% al confort sociocultural, el 3,58% al confort ambiental y el 3,58% al confort psicoespírita.

**Conclusión:** La incorporación de la teoría en el proceso de enfermería puede ayudar al enfermero a identificar y aplicar medidas de confort en todas las dimensiones para el anciano hospitalizado.

**Palabras clave:** teoría de enfermería; proceso de enfermería; diagnóstico de enfermería; comodidad del paciente; cuidados de enfermería para ancianos hospitalizados



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## Introduction

Population aging is a worldwide phenomenon that stands out for its heterogeneity and multidimensionality. The increase in the number of older people worldwide is accompanied by functional decline and vulnerability to chronic conditions (Oliveira et al., 2018). All this results in a growing demand for health services, especially hospitalizations in intensive care units (ICUs), because the conditions affecting older people often require intensive care using more complex technologies (Santos et al., 2018). In Brazil, elderly patients account for 42 to 52% of ICU admissions and 60% of the overnight stays and financial resources available in Brazilian ICUs, with a mortality rate reaching 62%, while the number of deaths among adult individuals in the sector is about 25% (Bonfada, Santos, Lima, & Garcia-Altés, 2017).

Hospitalization is usually an unpleasant experience for older people and can increase frailty, making them more susceptible to suffering and discomfort and potentially impairing their recovery (Carvalho, Valle, Jacinto, Mayoral, & Boas, 2018).

Technological equipment in ICUs is essential. However, patient care goes beyond this aspect because older people's need for comfort should be considered and respected (Cardoso, Pacheco, et al., 2019). Comfort measures are important to restore hospitalized elderly patients' health (Faria, Pontífice-Sousa, & Gomes, 2018) because comfort is considered as a basic human need, an essential, universally desirable outcome for nursing care, relevant in various professional taxonomies and nursing theories (Kolcaba, 2003; Ponte & Silva, 2015).

Older people have the right to respect, well-being, comfort, and to have their biopsychosocial needs met (Cardoso, Pacheco, et al., 2019). However, studies indicate gaps in care delivery to hospitalized elderly patients (Carvalho et al., 2018; Faria et al., 2018; Santos et al., 2018). The process of promoting comfort goes beyond positioning the patient properly, relieving pain, ensuring food or hygiene (Kolcaba, 2003). It is about providing help, encouraging, meeting the patient's needs in all dimensions, and implementing measures to relieve suffering (Kolcaba, 2003; Ponte & Silva, 2015).

To this end, nurses should use their methodological work tool - the nursing process (NP) - based on a theory to identify the patient's needs and provide comfort to hospitalized elderly patients. The application of a theory in the promotion of comfort can help nurses identify hospitalized elderly patients' needs and meet their comfort needs. Also, nursing theories can help operationalize the NP in hospitalized elderly patients.

This study aimed to identify the nursing diagnoses (NDs) used in the delivery of care to elderly patients hospitalized in an ICU and categorize the NDs based on the dimensions of comfort (Physical, Psychospiritual, Sociocultural, and Environmental) in Kolcaba's theory.

## Background

According to Kolcaba (2003), the promotion of comfort

in nursing practice is to ensure the satisfaction of the needs of relief (the state of having a specific need met), ease (the state of calm and contentment), and transcendence (the state in which one can rise above problems or pain) considering the physical, psychospiritual, sociocultural, and environmental contexts.

Kolcaba's Comfort Theory provides tools to promote comfort and adequate nursing care for hospitalized elderly patients, ensuring their needs (Cardoso, Caldas, & Souza, 2019; Mendes, Cruz, Rodrigues, Figueiredo, & Fialho, 2016). It is known that nursing theories provide a scientific knowledge base to guide professional practice, systematize knowledge, and organize care (Barbosa & Silva, 2018). To support her theory, Kolcaba used works by other theoretical nurses. The state of comfort described as relief was derived from the work of Ida Jean Orlando (Deliberative Nursing Process Theory), who considered that nurses relieve the needs expressed by their patients. The state of comfort called ease was derived from the work of Virginia Henderson (Nursing Need Theory), who described 14 basic functions of human beings that need to be met for maintaining balance. The concept of transcendence was derived from Josephine Paterson and Loretta Zderad's humanistic theory, which suggests that patients can overcome their difficulties with the help of nurses (Kolcaba, 2003).

In the search for the development of a concept of holistic comfort, Kolcaba added new constructs to the Comfort Theory, which were described as contexts or dimensions of comfort: Physical (bodily sensations or homeostatic mechanisms); Psychospiritual (meaning in one's life, internal awareness of self, including esteem, identity, sexuality, and spirituality); Sociocultural (pertaining to interpersonal, family, and societal relationships, including finances); and Environmental (pertaining to the external background of human experience, the external surroundings, conditions and influences; Kolcaba, 2003).

The principles of Kolcaba's Comfort Theory provide the following strategies to promote the comfort of elderly patients hospitalized in ICUs: the nurse and the other members of the multidisciplinary team identify the unmet needs of the older person and their family; the nurse designs and coordinates interventions to address these needs; intervening variables are considered when designing interventions because they play an essential role in their success; when the intervention is effective, the outcome of comfort is attained immediately; if comfort is achieved, the older person is more likely to engage in health-seeking behaviors that further enhance comfort; enhanced comfort is achieved when the older person intensifies his/her engagement in health-seeking behaviors; when individuals (older person/family/nurse) are satisfied with health care, public acknowledgment about the institution's contributions to health care may occur (Kolcaba, 2003).

If the assumptions in Kolcaba's theory guide the NP, it may lead to evidence-based care and the promotion of comfort for the elderly and their families, even in a hostile hospital environment such as the ICU.

The NP is a methodological instrument that requires the

incorporation of perspectives of nursing theories to operationalize care outcomes. It is a set of systematized and interrelated actions for organizing professional nursing care based on a theoretical support of its stages: nursing data collection or nursing history, nursing diagnosis, nursing planning, implementation, and evaluation (Conselho Federal de Enfermagem, 2009).

The NP promotes the comprehensive assessment of the elderly, allowing nurses to identify the needs associated with aging and institutionalization processes and diagnose discomfort situations for planning nursing interventions adjusted to the reality of this age group (Mendes et al., 2016; Piccinni, Costa, & Pissaia, 2017).

NDs are the basis for the selection of appropriate nursing interventions to meet the patient's comfort needs (Herdman & Kamitsuru, 2018).

The North American Nursing Diagnosis Association International (NANDA-I) taxonomy defines ND as “a clinical judgment concerning a human response to health conditions/life processes, or vulnerability for that response, by an individual, family, group, or community” (Herdman & Kamitsuru, 2018, p. 88).

## Research question

What is the profile of the NDs of elderly patients hospitalized in an ICU, considering the comfort dimensions in Kolcaba's theory?

## Methodology

This is a descriptive, cross-sectional study with a quantitative approach. The research site was an ICU of a tertiary-level hospital, directed to the performance of medium- and high-complexity elective procedures, in Rio de Janeiro, RJ/Brazil. The hospital integrates several specialties such as cardiology, vascular surgery, neurosurgery, hemodynamics, orthopedic, spine, and bariatric surgery. The unit selected for data collection has 34 beds for surgical and clinical treatment of adult patients, and had an average occupancy rate of 86% in 2019. This institution uses a computerized NP, where NANDA-I taxonomy II was adopted.

In this hospital, the nursing team goes through an admission integration process, receiving training on NP documentation.

The study population consisted of clinical records of elderly patients defined in this study as being 60 years of age or older.

The sample was selected using a nonprobability technique. Of the 436 clinical records of patients who were admitted to the ICU between 1 January and 31 December 2019, 333 (76.38%) records were excluded because they did not meet the following inclusion criteria: clinical records of patients with ND registration during their ICU stay

and aged 60 years or older. The exclusion criterion was length of stay in the ICU of less than 24 hours.

For data collection, a researcher consulted the electronic clinical records of each patient using a form that included information about age (in years), gender (female/male), ICU length of stay (days), and ND title. This researcher had knowledge and experience working with the institution's electronic clinical records.

The researchers categorized the NDs based on Kolcaba's contexts of comfort (2003): Physical, Psychospiritual, Sociocultural, and Environmental. For the categorization, they also consulted the list of diagnoses in classes 1 (physical comfort), 2 (environmental comfort), and 3 (social comfort) of domain 12 (comfort) of NANDA-I taxonomy II (Herdman & Kamitsuru, 2018).

In NANDA-I taxonomy, NDs are classified and categorized by domains and classes. Domains are spheres of knowledge, that is, broad levels of classification that divide the phenomenon into main groups. NDs are divided into 13 domains: Health Promotion, Nutrition, Elimination and Exchange, Activity/Rest, Perception/Cognition, Self-Perception, Role Relationships, Sexuality, Coping/Stress Tolerance, Life Principles, Safety/Protection, Comfort, and Growth/Development (Herdman & Kamitsuru, 2018). Classes are subcategories of domains with similar attributes (Herdman & Kamitsuru, 2018).

Data were entered into a Microsoft Excel 2013 spreadsheet. For descriptive statistics, frequency and percentages were calculated for categorical variables. For continuous variables, mean, median, minimum, and maximum values were calculated.

The results were discussed according to the comfort contexts (Physical, Psychospiritual, Sociocultural, and Environmental) in Kolcaba's Theory.

This study respected the ethical principles of personal data protection and ensured confidentiality and anonymity of documentary sources, data disclosure, and reliability. The Ethics and Health Research Committee of the Rio de Janeiro State University (UERJ) approved the study under opinion no. 3.091.077 (CAAE: 03773318.2.0000.5282).

## Results

Of the 436 clinical records, 106 were of patients aged  $\geq$  60 years. Of the 106 clinical records, three were excluded due to lack of ND registration. The final sample consisted of 103 clinical records of elderly patients hospitalized in the ICU. The majority of patients were women (58.25%;  $n = 60$ ). Ages ranged from 60 to 98 years, with a median age of 82 years among female patients and 81 years among male patients.

Regarding the days of ICU stay, the median was six days, with five days for male patients. Table 1 shows the sociodemographic and clinical characteristics of the elderly patients hospitalized in the ICU.

Table 1  
Sociodemographic and clinical characteristics of the elderly patients hospitalized in the ICU ( $n = 103$ )

Characteristics	<i>n</i> (%)
<b>Gender</b>	
Male	43 (41.75%)
Female	60 (58.25%)
<b>Age (years)</b>	
Mean	80.46
Minimum-maximum	60-98
Median	82
<b>Hospital stay in the ICU (days)</b>	
Mean	10,3
Minimum-maximum	1-62
Median	6

A total of 1,140 NDs were identified and distributed across 26 titles grouped into six domains of the NANDA-I taxonomy. The mean number of NDs identified per patient was 3.81 during ICU stay. Table 2 shows the 26 NDs identified in the elderly patients hospitalized in the ICU according to the domains of the NANDA-I taxonomy. The most frequent NDs (equal to or above 50% frequency) were Impaired verbal communication (00051;  $n = 53$ ; 51.46%), Risk for unstable blood glucose level (00179);  $n = 53$ ; 51.46%), Readiness for enhanced self-care (00182;

$n = 60$ ; 58.25%), Ineffective breathing pattern (00032;  $n = 71$ ; 68.93%), Impaired physical mobility (00085;  $n = 75$ ; 72.82%), Risk for dysfunctional gastrointestinal motility (00197;  $n = 75$ ; 72.82%), Impaired skin integrity (00046;  $n = 93$ ; 90.29%), and Risk for infection (00004;  $n = 103$ ; 100%).

The NDs identified in the elderly patients belonged to the following domains: Nutrition, Elimination and Exchange, Activity/Rest, Perception/Cognition, Coping/Stress Tolerance, and Safety/Protection.

Table 2  
Distribution of NDs identified in elderly patients hospitalized in the ICU, according to the domains of NANDA-I taxonomy ( $n = 103$ )

Domain	Nursing diagnosis	<i>n</i> (%)
<b>Domain 2 Nutrition</b>	Excess fluid volume (00026)	25 (24.27%)
	Impaired swallowing (00103)	27 (26.21%)
	Risk for electrolyte imbalance (00195)	30 (29.13%)
	Risk for imbalanced fluid volume (00025)	51 (49.51%)
	Risk for unstable blood glucose level (00179)	53 (51.46%)
<b>Domain 3 Elimination and Exchange</b>	Dysfunctional gastrointestinal motility (00196)	20 (19.42%)
	Impaired gas exchange (00030)	28 (27.18%)
	Constipation (00011)	36 (34.95%)
	Impaired urinary elimination (00016)	39 (37.86%)
	Risk for dysfunctional gastrointestinal motility (00197)	75 (72.82%)
<b>Domain 4 Activity/Rest</b>	Decreased cardiac output (00029)	26 (23.24%)
	Risk for ineffective cerebral tissue perfusion (00201)	26 (23.24%)
	Impaired spontaneous ventilation (00033)	41 (39.81%)
	Readiness for enhanced self-care (00182)	60 (58.25%)
	Ineffective breathing pattern (00032)	71 (68.93%)
<b>Domain 5 Perception/Cognition</b>	Impaired physical mobility (00085)	75 (72.82%)
	Chronic confusion (00129)	35 (33.98%)
<b>Domain 9 Coping/Stress Tolerance</b>	Impaired verbal communication (00051)	53 (51.46%)
	Anxiety (00146)	27 (26.21%)
<b>Domain 11 Safety/Protection</b>	Hyperthermia (00007)	20 (19.42%)
	Risk for vascular trauma (00213)	21 (20.39%)
	Risk for aspiration (00039)	37 (35.92%)
	Risk for shock (00205)	38 (36.89%)
	Risk for bleeding (00206)	42 (40.78%)
	Impaired skin integrity (00046)	93 (90.29%)
	Risk for infection (00004)	103 (100%)

Regarding the dimensions of comfort, of the 26 titles identified in the clinical records, the researchers categorized 80.77% ( $n = 21$ ) of them as belonging to the dimension of physical comfort, 11.54% ( $n = 3$ ) to sociocultural comfort, 3.85% ( $n = 1$ ) to environmental comfort, and 3.85% ( $n = 1$ ) to psychospiritual comfort (Table 3).

Table 3

*Distribution of NDs identified in patients hospitalized in ICUs, according to the dimensions of Kolcaba's Comfort Theory*

Dimensions	Nursing diagnosis	n (%)
Physical	Chronic confusion (00129)	21 (80.77%)
	Excess fluid volume (00026)	
	Impaired swallowing (00103)	
	Risk for electrolyte imbalance (00195)	
	Risk for imbalanced fluid volume (00025)	
	Risk for unstable blood glucose level (00179)	
	Dysfunctional gastrointestinal motility (00196)	
	Impaired gas exchange (00030)	
	Constipation (00011)	
	Impaired urinary elimination (00016)	
	Dysfunctional gastrointestinal motility (00196)	
	Hyperthermia (00007)	
	Risk for vascular trauma (00213)	
	Risk for aspiration (00039)	
	Risk for shock (00205)	
	Risk for bleeding (00206)	
Impaired skin integrity (00046)		
Decreased cardiac output (00029)		
Risk for ineffective cerebral tissue perfusion (00201)		
Impaired spontaneous ventilation (00033)		
Ineffective breathing pattern (00032)		
Psychospiritual	Anxiety (00146)	1 (3.85%)
Environmental	Risk for infection (00004)	1 (3.85%)
Sociocultural	Readiness for enhanced self-care (00182)	3 (11.54%)
	Impaired physical mobility (00085)	
	Impaired verbal communication (00051)	
<b>Total</b>		<b>26</b>

## Discussion

The promotion of comfort implies strengthening interpersonal bonds between the patient/family and the professional to minimize their physical and mental suffering (Kolcaba, 2003; Mendes et al., 2016).

Comfort is an immediate desirable outcome of nursing care (Ponte & Silva, 2015; Mendes et al., 2016). Kolcaba's Comfort Theory proposes that nurses comprehensively evaluate the patients, especially hospitalized elderly patients, and identify their comfort needs in the biopsychospiritual and environmental dimensions (Kolcaba, 2003). The operationalization of the NP enables a comprehensive geriatric evaluation, allowing nurses to identify human responses and diagnose situations of discomfort for care planning (Mendes et al., 2016; Saraiva et al., 2017).

The implementation of the NP and the quality of care are directly associated with the second stage of the NP, that is, the identification of NDs, because they are the basis for nursing interventions and for achieving the expected outcomes (Herdman & Kamitsuru, 2018), such as the comfort of hospitalized elderly patients.

In NANDA-I taxonomy, the domain of comfort is defined as a "sense of mental, physical, or social well-being or ease" (Herdman & Kamitsuru, 2018, p. 166). Domain 12 (comfort) includes three classes of the NANDA-I taxonomy: class 1 - physical comfort, class 2 - environmental comfort, and class 3 - social comfort.

Class 1 (physical comfort) of domain 12 (comfort) of the NANDA-I taxonomy includes seven NDs related to a sense of well-being or ease and/or freedom from pain: Impaired comfort (00214); Readiness for enhanced comfort (00183); Acute pain (00132); Chronic pain (00133); Chronic pain syndrome (00255); Labor pain (00256); and Nausea (00134; Herdman & Kamitsuru, 2018). In the analyzed clinical records, no records were found of these seven NDs listed in NANDA-I as being associated with physical comfort.

For Kolcaba (2003), the physical context of comfort pertains to bodily sensations, which corresponds to all the physiological dimensions necessary for. In the analyzed clinical records, the researchers categorized 21 NDs as relevant for comfort in the physical context. These data reflect the nurses' concern about diagnosing and meeting

older people's comfort needs in the ICU's physical context. In class 2 (environmental comfort) of domain 12 (comfort) in NANDA-I taxonomy, environmental comfort is defined as a "sense of well-being or ease in/with one's environment" (Herdman & Kamitsuru, 2018, p. 166). This class includes the NDs Impaired comfort (00214) and Readiness for enhanced comfort (00183).

The ND Risk for infection (00004) was identified in the clinical records, and the researchers categorized it as belonging to the dimension of environmental comfort as, for Kolcaba (2003), this dimension encompasses the surroundings and the external conditions and influences, such as temperature, light, sound, smell, color, furniture, and landscape. To provide comfort, nurses must promote a favorable, welcoming environment where the older person feels cared for and receives relief, safety, protection, and well-being (Faria et al., 2018; Mendes et al., 2016). So, nurses must provide a pleasant and infection-free environment.

Class 3 (social comfort) of domain 12 (comfort) in NANDA-I taxonomy includes NDs related to social comfort, which is defined as a "sense of well-being or ease with one's social situation" (Herdman & Kamitsuru, 2018, p. 167). This class includes four NDs in NANDA-I: Social isolation (0053), Risk for loneliness (00054), Impaired comfort (00214), and Readiness for enhanced comfort (00183; Herdman & Kamitsuru, 2018). No records of these four NDs listed in NANDA-I were found in the clinical records of the elderly patients admitted to the ICU. In Kolcaba's theory (2003), social comfort occurs in the context of interpersonal, family, and societal relationships. The researchers identified three ND that may be associated with the comfort needs in the sociocultural context: Readiness for enhanced self-care (00182), Impaired physical mobility (00085), and Impaired verbal communication (00051).

The ND Readiness for enhanced self-care (00182) refers to the ability to perform activities to take care of yourself (Herdman & Kamitsuru, 2018). The researchers categorized this ND as belonging to the sociocultural comfort dimension because it affects the older person's functional capacity and may influence social relationships. This ND is included in the domain of health promotion in NANDA-I (Herdman & Kamitsuru, 2018). Studies report the importance of incorporating comfort-related nursing actions aimed at health promotion in the ICU environment (Tavares, Grácio, & Nunes, 2018; Castro et al., 2019). Nursing interventions cannot be limited to the prevention, treatment, or cure of diseases in the hospital environment but it is also important to implement cross-cutting and interdisciplinary comfort strategies regardless of the environment where care is provided.

Impaired physical mobility (00085) is defined in NANDA-I taxonomy as "limitation in independent, purposeful physical movement of the body or of one or more extremities" (Herdman & Kamitsuru, 2018, p. 406). The researchers included this ND in the dimension of sociocultural comfort. This ND is related to the geriatric syndrome of postural instability that affects older people and can trigger other situations such as fall risk,

immobility, low self-esteem, fear, insecurity, and social isolation (Fernandes et al., 2019). Nurses should identify and intervene in this ND still in the hospital environment to avoid interfering with the older person's social life after discharge (Tavares et al., 2018).

The ND Impaired verbal communication (00051) was identified in 51.46% ( $n = 53$ ) of the clinical records. This ND is defined in NANDA-I taxonomy as the "decreased, delayed, or absent ability to receive, process, transmit, and/or use a system of symbols." (Herdman & Kamitsuru, 2018, p. 503). This ND is related to the geriatric syndrome of social isolation (Fernandes et al., 2019), and the researchers included it in the dimension of sociocultural comfort. Verbal and nonverbal communication is a basic human need that underlies all interpersonal relationships and through which people can express who they are, connect with each other, and meet their needs (Vieira, Santos, & Puggina, 2019).

According to Kolcaba (2003), psychospiritual comfort occurs in a context that pertains to an internal awareness of self, including self-esteem, identity, sexuality, meaning in one's life, and the relationship with others and with a higher being.

Concerning the dimension of psychospiritual comfort, domain 10 (life principles) in the NANDA-I taxonomy includes NDs related to life principles, which are defined as "principles underlying conduct, thought, and behavior about acts, customs, or institutions viewed as being true or having intrinsic worth" (Herdman & Kamitsuru, 2018, p. 163). In the analyzed clinical records, no records of NDs of domain 10 of NANDA-I taxonomy were identified.

The ND Anxiety (00146) was identified in 26.21% ( $n = 27$ ) of the clinical records. This ND belongs to domain 9 (Coping/Stress tolerance) in NANDA-I taxonomy and is defined as "vague, uneasy feeling of discomfort or dread accompanied by an autonomic response" (Herdman & Kamitsuru, 2018, p. 614). Thus, this ND was categorized as belonging to the psychospiritual context of comfort because it is related to spiritual discomfort. When the NP is operationalized using a theory such as Kolcaba's theory, patient's comfort needs can be identified and the identification of NDs can help nurses implement psychospiritual comfort measures (dialogue, encouragement and respect for religious activities, embracement, empathy) in the intensive care environment (Veras et al., 2019).

This study had some limitations. Three results cannot be generalized to all care contexts because it is a cross-sectional study conducted in an ICU. Moreover, ICU length of stay may have interfered with the identification of NDs because the number of NDs and comfort dimensions may vary depending on hospital length of stay. However, these findings can assist nurses in selecting the most appropriate nursing theories for the operationalization of the NP with a view to implementing comfort measures for elderly patients hospitalized in ICUs.

## Conclusion

This study identified NDs in the clinical records of elderly

patients hospitalized in the ICU and categorized them based on the comfort dimensions in Kolcaba's theory. It found a prevalence of NDs related to the dimension of physical comfort, which points to the need to evaluate and intervene in other dimensions of comfort, emphasizing the importance of using theories in the operationalization of the NP.

The NDs identified by the nurses may correspond to the needs of critically ill patients in the ICU. However, their identification is not a guarantee that clinical reasoning is directed to priorities such as comfort and individualized care for the elderly. Therefore, nurses should use the NP based on a nursing theory that contributed to the selection of NDs and the implementation of interventions driven by patient needs.

### Author contributions

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### References

- Barbosa, V. M., & Silva, J. V. (2018). Utilização de teorias de enfermagem na sistematização da prática clínica do enfermeiro: Revisão integrativa. *Revista de Enfermagem e Atenção à Saúde*, 7(1), 260-271. doi: 10.18554/reas.v7i1.2517
- Bonfada, D., Santos, M. M., Lima, K. C., & Garcia-Altés, A. (2017). Análise de sobrevivência de idosos internados em Unidades de Terapia Intensiva. *Revista Brasileira de Geriatria e Gerontologia*, 20(2), 198-206. doi: 10.1590/1981-22562017020.160131
- Cardoso, R. B., Caldas, C. P., & Souza, P. A. (2019). Uso da teoria do conforto de Kolcaba na implementação do processo de enfermagem: Revisão integrativa. *Revista de Enfermagem e Atenção à Saúde*, 8(1), 118-128. doi: 10.18554/reas.v8i1.2758
- Cardoso, R. B., Pacheco, S. T., Caldas, C. P., Souza, P. A., Peres, P. L., & Nunes, M. D. (2019). Prática confortadora ao idoso hospitalizado à luz da bioética. *Revista Bioética*, 27(4), 595-599. doi: 10.1590/1983-80422019274342
- Carvalho, T. C., Valle, A. P., Jacinto, A. F., Mayoral, V. F., & Boas, P. J. (2018). Impacto da hospitalização na funcionalidade de idosos: Estudo de coorte. *Revista Brasileira de Geriatria e Gerontologia*, 21(2), 134-142. doi: 10.1590/1981-22562018021.170143
- Castro, A. S., Arboit, É. L., Ely, G. K., Dias, C. A., Arboit, J., & Camponogara, S. (2019). Percepções da equipe de enfermagem acerca da humanização em terapia intensiva. *Revista Brasileira em Promoção da Saúde*, 32(8668), 1-10. doi: 10.5020/18061230.2019.8668
- Conselho Federal de Enfermagem. (2009). *Resolução nº 358 de 15 de outubro de 2009*. Retrieved from [https://files.cercomp.ufg.br/weby/up/194/o/Resolu%C3%A7%C3%A3o\\_n%C2%BA358-2009.pdf](https://files.cercomp.ufg.br/weby/up/194/o/Resolu%C3%A7%C3%A3o_n%C2%BA358-2009.pdf)
- Faria, J. M., Pontífice-Sousa, P., & Gomes, M. J. (2018). O conforto do doente em cuidados intensivos: Revisão integrativa. *Enfermería Global*, 50, 503-514. doi: 10.6018/eglobal.17.2.266321
- Fernandes, B. K., Soares, A. G., Melo, B. V., Lima, W. N., Borges, C. L., Lopes, V. M., . . . & Freitas, M. C. (2019). Diagnósticos de enfermagem para idosos frágeis institucionalizados. *Revista de Enfermagem UFPE on line*, 13(4), 966-972. doi: 10.5205/1981-8963-v13i04a237572p966-972-2019
- Herdman, S. T., & Kamitsuru, S. (2018). *Diagnósticos de enfermagem da NANDA-I: Definições e classificação 2018-2020* (11ª ed.). Porto Alegre, Brasil: Artmed.
- Kolcaba, K. (2003). *Comfort theory and practice: A vision for holistic health care and research*. New York, NY: Springer Publishing Company.
- Mendes, R. S., Cruz, A. M., Rodrigues, D. P., Figueiredo, J. V., & Fialho, A. V. (2016). Teoria do conforto como subsídio para o cuidado clínico de enfermagem. *Ciência, Cuidado e Saúde*, 15(2), 390-395. doi: 10.4025/ciencucuidsaude.v15i2.27767
- Oliveira, F. M., Costa, K. N., Pontes, M. L., Batista, P. S., Barbosa, K. T., & Fernandes, M. G. (2018). Fatores de risco associados à hospitalização em idosos atendidos na atenção primária de saúde. *Revista Enfermagem UERJ*, 26, e15488. doi: 10.12957/reuerj.2018.15488
- Piccinni, V. M., Costa, A. E., & Pissaiá, L. F. (2017). Implantação da sistematização da assistência de enfermagem como meio de qualificação da assistência ao idoso. *Revista Brasileira de Ciências do Envelhecimento Humano*, 14(3), 307-317. doi: 10.5335/rbceh.v14i3.6631
- Ponte, K. M., & Silva, L. F. (2015). Conforto como resultado do cuidado de enfermagem: Revisão integrativa. *Revista de Pesquisa: Cuidado é Fundamental Online*, 7(3), 2603-2614. doi: 10.9789/2175-5361.2015.v7i2.2603-2614
- Santos, A. M., Almeida, C. A., Cardoso, S. B., Rocha, F. C., Menezes, S. F., Felix, L. N., & Sá, G. G. (2018). Intercorrências e cuidados a idosos em unidades de terapia intensiva. *Revista de Enfermagem UFPE on line*, 12(11), 3110-3124. doi: 10.5205/1981-8963-v12i11a234531p3110-3124-2018
- Saraiva, L. B., Santos, S. N., Oliveira, F. A., Moura, D. J., Barbosa, R. G., & Almeida A. N. (2017). Avaliação geriátrica ampla e sua utilização no cuidado de enfermagem a pessoas idosas. *Journal of Health Sciences*, 19(4), 262-267. Retrieved from <http://docs.bvsalud.org/biblioref/2018/01/877795/10-avaliacao-geriatrica-ampla.pdf>
- Tavares, J. P., Grácio, J., & Nunes, L. (2018). A pessoa idosa hospitalizada: Trajetória funcional em hospital português. *Revista de Enfermagem Referência*, 4(18), 19-28. doi: 10.12707/RIV18028
- Veras, S. M., Menezes, T. M., Guerrero-Castañeda, R. F., Soares, M. V., Anton Neto, F. R., & Pereira, G. S. (2019). O cuidado da enfermeira à dimensão espiritual da pessoa idosa hospitalizada. *Revista Brasileira de Enfermagem*, 72(Supl. 2), 236-242. doi: 10.1590/0034-7167-2018-0685
- Vieira, N. F., Santos, M. R., & Puggina, A. C. (2019). Prevalência do diagnóstico de enfermagem "Comunicação verbal prejudicada" nas unidades de um hospital privado. *Enfermagem em Foco*, 10(3), 46-51. doi: 10.21675/2357-707X.2019.V10.N3.2577

