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Nursing Diagnoses of the Domain Safety/Protection and Socioeconomic and Clinical Aspects of Critical Patients

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Abstract

Objective: The objective is to correlate the nursing diagnoses of the domain Safety/Protection of NANDA-I in critically ill patients with sociodemographic and clinical data. Method: A cross-sectional study with 86 individuals was conducted, from October 2013 to May 2014 in the Intensive Care Unit of a university hospital in northeastern Brazil, through a formal interview and physical examination. Results: It was possible to identify a total of 20 significant statistical associations, and 15 were clinically justified by the literature, namely: risk for aspiration and reason for admission; impaired dentition and age; risk for peripheral neurovascular dysfunction and sex and comorbidity; skin integrity and comorbidity; risk for impaired skin integrity and gender and reason for admission; impaired tissue integrity and gender and reason for admission; risk for perioperative positioning injury and reason for admission; risk for thermal injury and age and comorbidity; delayed surgical recovery and reason for admission; risk for poisoning and years of schooling; and risk for imbalanced body temperature and age. Conclusions: By understanding the relationship between customers' answers and the sociodemographic and clinical profile, positive health outcomes can be achieved in particular in the prevention of risks facing vulnerability characteristics, providing greater safety and protection for the critical customer.

Keywords

Nursing Diagnosis, Patient Safety, Intensive Care

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1. Introduction

Intensive Care Unit (ICU) is a critical area for admission of critically ill patients, who are greatly dependent on care and have multiple comorbidities and chronic diseases that require professional, specialized and continuous care, as well as specific materials and technologies necessary to diagnosis, monitoring and therapy [1] [2].

Thus, given the characteristics of these patients, there is a need of interventions of extreme complexity, as even the most basic actions become complex when performed in patients in critical condition. This required proper planning and a trained team [3].

Therefore, the ICU comprises a specialized nursing care with safe and complete approach that requires high technical and scientific competence [4]. Thus, the assessment of the critical patient is part of the nursing work process, whose aim is to check the health status and the care needs. The data obtained from this evaluation guide the formulation of a care plan directed to individual needs [5].

In this context, the safety and protection of critical patients become essential activities, in view of the complexity of care to which these individuals are subjected. Thus, from the perspective of patient evaluation, we highlight the nursing diagnoses (ND) of NANDA International (NANDA-I), inserted in the domain safety/protection, defined as "being free of danger, injury, or damage to the immune system; conservation against losses and protection of safety and of absence of dangers" [6].

The need for safety and protection in this clientele stands out in face of the high number of adverse events, mainly related to excessive risk exposure. Therefore, nurses must act precisely, with valid interventions, in an attempt to minimize such adverse events, considering their attitude toward aspects of structure and process that may trigger risks in critically ill patients while providing care [7].

It is understandable, therefore, the importance of addressing this issue in order to highlight the need for nursing staff emphasizes attention to quality of care, especially the reduction of errors and iatrogenic complications related to the care process. Thus, the nurse must know and evaluate the patient in order to identify early problems and adopt behaviors more quickly [2].

From this perspective, there is the need to recognize the social and clinical context in which critical patients are inserted, showing their relations with changes in safety and security they experience during hospitalization, in an attempt to direct the nursing actions before the specific characteristics of this clientele. Thus, the following question arose: Are the nursing diagnoses of the domain safety/protection of NANDA-I associated with the sociodemographic and clinical data of critically ill patients? Thus, this article aimed to correlate nursing diagnoses of the domain safety/protection of NANDA-I with the sociodemographic and clinical data in critically ill patients.

2. Method

This is a cross-sectional study conducted in the ICU of a university hospital in northeastern Brazil. This ICU has 19 beds for the treatment of general and surgical patients.

The study population consists of 791 patients admitted to the unit from October 2011 to September 2012. The sample was calculated from the application of the formula developed for studies of finite populations, considering the parameters: confidence level 95% ($Z\infty = 1.96$), sampling error of 10% and a population of 791 patients. From the application of the formula, we found a sample size of 86 individuals.

Patients were recruited according to the inclusion criteria: aged 18 years or older and patients undergoing medical or surgical treatment. Exclusion criteria were: patients hospitalized in the unit for a period less than 24 hours and those readmitted. The selection was held by convenience sampling and consecutively.

Data collection occurred from October 2013 to May 2014 (eight months), through an interview form and physical examination, with open and closed questions about the socioeconomic data and the defining characteristics (signs and symptoms), related/risk factors present in the domain safety/protection of NANDA-I. It is highlighted that this domain has a total of 37 ND, in six classes (infection, physical injury, violence, environmental risks, defensive processes and thermoregulation) [6]. However, the class 3-violence, which has five diagnoses, did not meet the study of customers in question, so it was excluded. The diagnosis risk for sudden infant death syndrome also did not apply to study customers. Finally, 31 diagnoses were analyzed in this study, these are: risk for contamination, risk for injury, risk for falls, risk for allergy response, risk for trauma, risk for infection, risk for aspiration, risk for shock, impaired dentition, ineffective airway clearance, risk for peripheral neurovascular dysfunction, impaired skin integrity, risk for impaired skin integrity, impaired tissue integrity, risk for pe-

rioperative positioning injury, risk for thermal injury, impaired oral mucous membrane, risk for dry eye, delayed surgical recovery, risk for bleeding, risk for suffocation, risk for vascular trauma, contamination, risk for poisoning, risk for adverse reaction to iodinated contrast media, risk for latex allergy response, hyperthermia, risk for imbalanced body temperature, ineffective thermoregulation, latex allergy response and hypothermia.

It is noteworthy that the instrument in question has been validated for the appearance and content by three experts in the fields of nursing diagnosis and/or intensive care, in order to verify the adequacy and relevance of the content and to identify the existence of gaps. The appropriate adjustments were made in the instrument.

Data were collected by three interviewers, they were the researcher and two collaborating students, of whom one was from graduation and the other from the multidisciplinary residence. They went through a previous training in order to enhance the use of the instrument used in the study, as well as on the selected theme, reducing possible biases at the time of collection. That training took place in September 2013 and consisted of a course on Systematization of Nursing Care to the hospitalized customer in the ICU, with a schedule of eight hours.

After collection, 86 sheets were prepared, each relating to a patient, containing sociodemographic and clinical data and the nursing diagnoses investigated, with the list of diagnosis components.

After, it was performed the process of diagnostic inference by diagnosticians, who were recruited among experts chosen according to the curriculum; these were specialists in Systematization of Nursing Care (SAE in Portuguese). Selection criteria were: having published articles referring to SAE and/or expertise or experience in the intensive care area.

In order to recruit the diagnosticians, it was held training with six experts chosen from pre-established criteria, and then their diagnostic capability was evaluated, in order to identify which professionals had greater diagnostic inference capacity for this domain. For this purpose, authors prepared 12 fictitious clinical cases, involving 31 nursing diagnoses of the domain safety/protection of NANDA-I. In these clinical cases, clinical histories with signs and symptoms of the studied diagnoses were reported, in which the expert should check the presence or absence of each diagnosis of the investigated domain. Experts performed the diagnostic inference of the 12 clinical histories three times, reaching a total of 36 assessments by expert, as recommended in the literature [8].

At the end, the performance of each specialist was assessed by Kappa test and, after that, three experts were selected as diagnosticians for this study. Subsequently, the diagnosticians received the 86 spreadsheets developed by the researcher, each relating to a patient and containing all the defining characteristics, the related factors and the risk of the domain under study, already marked for the presence (P) and the absence (A), as well as additional information regarding the socioeconomic and clinical data and observations relevant to the diagnostic inference process, in which diagnosticians judged the presence or absence of diagnosis in each patient.

The data were analyzed according to descriptive statistics for frequency measures, central tendency and dispersion. To check the normality of the data, authors used the Kolmogorov-Smirnov test ($p < 0.05$). For the inferential analysis, the Mann Whitney U, the Fisher's exact and the chi-square tests were used. To verify statistical association between the study variables, authors considered p-value <0.05.

The study was approved by the Ethics Research Committee of the institution under the Protocol 440/414 and presentation of certificate for ethical appreciation No. 22955113.2.0000.5292. All study participants or their legal representatives signed the Informed Consent Form.

3. Results

The study evaluated 86 critically ill patients admitted to the Intensive Care Unit, of which the majority were female (52.3%), had a religion (95.3%) and a partner (70.9%). Regarding origin, 61.6% came from the countryside. With regard to age, the average was 53.4 years old (±16.5), with a minimum of 18 and maximum of 81. With regard to the years of study, the median was six years, with a minimum of zero and a maximum of 20. These data will be presented in **Table 1**.

On the clinical data, it was observed that: the majority of patients (73.3%) were admitted to the ICU due to postoperative of major surgeries or for treatment of complications related directly to surgical procedures. Most patients (70.9%) had chronic diseases, did not smoke regularly (72.1%) and did not use alcohol (77.9%).

Of the 31 nursing diagnoses of the domain Safety/Protection investigated in critically ill patients, 29 presented varying frequencies. The following prevalence was identified: the diagnoses risk for contamination, risk for

Table 1. Socioeconomic characteristics of patients admitted to the intensive care unit of the University Hospital Onofre Lopes. Natal/RN, 2014.

Variables		n	%
Gender			
Female		45	52.3
Masculine		41	47.7
Total		86	100.0
Breed			
Brown		48	55.8
White		22	25.6
Black		15	17.4
Yellow		01	1.2
Total		86	100.0
Religion			
Yes		82	95.3
No		04	4.7
Total		86	100.0
Marital status			
with a partner		61	70.9
without a partner		25	29.1
Total		86	100.0
Origin			
Countryside		53	61.6
Capital city		33	38.4
Total		86	100.0

	Average	Standard deviation	Median	Minimum	Maximum	P-value
Age (in years)	53.4	16.5	54.5	18.0	81.0	0.200
Years of study	6.3	4.5	6.0	0.0	20.0	0.000**

**Kolmogorov-Smirnov test ($p < 0.05$).

injury, risk for falls, risk for allergy response and risk for trauma were present in 100% of the sample; risk for infection and risk for dry eye in 98.8%; risk for poisoning and risk for vascular trauma in 96.5%; impaired skin integrity in 95.3%; impaired dentition in 93%; risk for bleeding in 83.7%; risk for imbalanced body temperature in 82.6%; impaired tissue integrity in 76.7%; risk for perioperative positioning injury in 73.3%; risk for peripheral neurovascular dysfunction in 72.1%; risk for adverse reaction to iodinated contrast media in 69.8%; Risk for shock in 61.6%; and risk for aspiration in 50% of the sample investigated.

The other diagnoses had prevalence lower than 50%, namely: risk for thermal injury (46.5%), delayed surgical recovery (43.0%); ineffective airway clearance (40.7%); risk for suffocation (34.9%); risk for impaired skin integrity (17.4%); risk for latex allergy response (9.3%); hyperthermia (7.0%); ineffective thermoregulation (5.8%); impaired oral mucous membrane (2.3%); and contamination (1.2%).

Regarding the association between sociodemographic and clinical variables and the nursing diagnoses of the domain safety/protection of NANDA-I, **Table 2** presents the identified associations.

Table 2. Distribution of association between the nursing diagnoses of the domain safety/protection of NANDA-I and the sociodemographic and clinical variables of critical patients. Natal/RN, 2015.

Nursing diagnoses	Age	Years of study	Gender	Religion	Marital status	Origin	Reason for hospitalization	Comorbidity	Smokers	Alcoholic
Risk for infection	0.171[1]	0.656[1]	1.000[2]	1.000[2]	1.000[2]	0.384[2]	0.326[2]	1.000[2]	1.000[2]	1.000[2]
Risk for aspiration	0.853[1]	0.791[1]	0.280[3]	0.116[2]	0.096[3]	0.121[3]	**0.021[3]**	0.812[3]	1.000[3]	0.795[3]
Risk for shock	0.344[1]	0.681[1]	0.442[3]	0.636[2]	0.772[3]	0.542[3]	0.076[3]	0.437[3]	0.918[3]	0.877[3]
Impaired dentition	**0.033[1]**	0.088[1]	0.678[2]	0.255[2]	0.351[2]	0.399[2]	0.386[2]	1.000[2]	0.179[2]	0.610[2]
Ineffective airway clearance	0.135[1]	0.774[1]	0.763[3]	0.643[2]	0.690[3]	0.273[3]	0.222[3]	0.378[3]	0.546[3]	0.698[3]
Risk for peripheral neurovascular dysfunction	0.055[1]	0.447[1]	**0.033[3]**	0.064[2]	0.109[3]	0.918[3]	0.352[3]	**0.033[3]**	0.485[3]	0.450[3]
Impaired skin integrity	0.069[1]	0.657[1]	0.118[2]	0.176[2]	1.000[2]	1.000[2]	0.099[2]	**0.006[2]**	0.573[2]	1.000[2]
Risk for impaired skin integrity	0.466[1]	0.810[1]	**0.000[3]**	0.542[2]	0.757[2]	0.305[3]	**0.000[2]**	0.353[2]	0.542[2]	0.505[2]
Impaired tissue integrity	0.118[1]	0.434[1]	**0.001[3]**	1.000[2]	0.647[3]	0.723[3]	**0.000[3]**	0.505[3]	0.142[3]	0.542[2]
Risk for perioperative positioning injury	0.185[1]	0.569[1]	**0.044[3]**	0.568[2]	0.221[2]	0.624[3]	**0.000[3]**	0.542[2]	0.539[2]	0.746[2]
Risk for thermal injury	**0.001[1]**	0.903[1]	0.976[3]	0.120[2]	0.211[3]	0.549[3]	0.170[3]	**0.007[3]**	0.297[3]	0.139[3]
Impaired oral mucous membrane	0.108[1]	0.665[1]	1.000[2]	1.000[2]	0.499[2]	0.521[2]	1.000[2]	0.499[2]	0.483[2]	0.395[2]
Risk for dry eye	0.614[1]	0.224[1]	0.477[2]	1.000[2]	0.291[2]	0.384[2]	1.000[2]	0.291[2]	1.000[2]	1.000[2]
Delayed surgical recovery	0.137[1]	0.183[1]	**0.015[3]**	0.289[2]	0.481[3]	0.276[3]	**0.000[3]**	0.366[3]	0.820[3]	0.962[3]
Risk for bleeding	0.164[1]	0.473[1]	0.118[3]	0.122[2]	0.749[2]	0.328[3]	0.000[2]	1.000[2]	0.100[2]	0.500[2]
Risk for suffocation	0.673[1]	0.553[1]	0.555[3]	0.293[2]	0.719[3]	0.482[3]	0.281[3]	0.064[3]	0.851[3]	0.375[3]
Risk for vascular trauma	0.216[1]	0.962[1]	1.000[2]	0.135[2]	1.000[2]	1.000[2]	1.000[2]	1.000[2]	0.187[2]	0.532[2]
Contamination	0.087[1]	0.656[1]	1.000[2]	**0.047[2]**	0.291[2]	1.000[2]	0.326[2]	0.291[2]	1.000[2]	0.221[2]
Risk for poisoning	0.102[1]	**0.042[1]**	0.243[2]	0.135[2]	0.201[2]	1.000[2]	0.246[2]	0.201[2]	0.557[2]	0.532[2]
Risk for adverse reaction to iodinated contrast media	0.189[1]	0.222[1]	0.853[3]	0.081[2]	**0.022[3]**	0.329[3]	0.789[3]	0.819[3]	0.511[3]	0.885[3]
Risk for latex allergy response	0.608[1]	0.590[1]	0.716[2]	0.328[2]	1.000[2]	**0.050[2]**	1.000[2]	0.686[2]	0.680[2]	1.000[2]
Hyperthermia	0.147[1]	0.912[1]	0.678[2]	1.000[2]	1.000[2]	0.399[2]	1.000[2]	0.667[2]	0.670[2]	1.000[2]
Risk for imbalanced body temperature	**0.006[1]**	0.904[1]	0.512[3]	0.139[2]	0.757[2]	0.659[3]	0.128[2]	0.353[2]	0.752[2]	0.305[2]
Ineffective thermoregulation	0.612[1]	0.933[1]	1.000[2]	1.000[2]	0.625[2]	0.151[2]	0.659[2]	1.000[2]	0.130[2]	1.000[2]

Legend: [1]Mann Whitney U test; [2]Fisher's exact test; [3]Chi-square test. p-value < 0.05.

It is worth mentioning that it was not possible to perform the association tests for the diagnoses that showed prevalence of 100% of the sample (risk for contamination, risk for injury, risk for falls, risk for allergy response and risk for trauma) and for those that were not present in any patient (latex allergy response and hypothermia), since the formation of 2x2 tables is not allowed.

The results indicate the following statistically significant associations: risk for aspiration and reason for hospitalization (p = 0.021); impaired dentition and age (p = 0.033); risk for peripheral neurovascular dysfunction and gender (p = 0.033) and comorbidity (p = 0.033); impaired skin integrity and comorbidity (p = 0.006); risk

for impaired skin integrity and gender ($p = 0.000$) and reason for hospitalization ($p = 0.000$); impaired tissue integrity and gender ($p = 0.001$) and reason for hospitalization ($p = 0.000$); risk for perioperative positioning injury and gender ($p = 0.044$) and reason for hospitalization ($p = 0.000$); risk for thermal injury and age ($p = 0.001$) and comorbidities ($p = 0.007$); delayed surgical recovery and gender ($p = 0.015$) and reason for hospitalization ($p = 0.000$); contamination and religion ($p = 0.047$); risk for poisoning and years of study ($p = 0.042$); risk for adverse reaction to iodinated contrast media and marital status ($p = 0.022$); risk for latex allergy response and origin ($p = 0.050$); and risk for imbalanced body temperature and age ($p = 0.006$).

4. Discussion

Patients treated in Intensive Care Units are considered critical because they present changes in one or more vital organs, risk or hemodynamic instability and severe disorders that need individualized care by the multidisciplinary team. So, it is vital to ensure their safety and protection [9].

Age showed statistically significant association with impaired dentition, risk for thermal injury and risk for imbalanced body temperature. Thus, corroborating the data from this study in relation to impaired dentition and age, in a study developed with elderly patients in the center-west of Brazil, in order to determine the prevalence of the nursing diagnoses in the domain Safety/protection, the diagnosis impaired dentition was found in all seniors. The elderly participants of that study reported that difficulty of access to the dentist in childhood and adolescence, lack of knowledge about the importance of dental hygiene, including caring for dental prosthesis, and the fact of being smokers during adulthood were factors that influenced on the state of their teeth [10], which supports the association found in this study between age and the diagnosis impaired dentition.

Moreover, the association seen between age and thermal injury is based in the fact that senility causes skin changes that promote loss of thickness of the dermis, of approximately 20% in elderly individuals. The reduction of collagen decreases the skin resistance and hinders healing. The decrease of Langerhans cells makes elderly patients more susceptible to microorganism invasion, particularly in the occurrence of denuded skin. These factors may contribute to the appearance of skin lesions due to the loss of supporting tissue, which becomes more fragile and prone to abrasive, compression and thermal injuries [10].

The control of body temperature occurs difficultly in the elderly, since the regulatory mechanisms are altered by the aging process [11]. Elderly experience atrophy of the sweat and sebaceous glands, which reduces the amount of perspiration, thereby contributing to changes in thermoregulation, the loss and heat retention, which increases the risk for imbalanced body temperature [10]. These facts justify the correlation between age and the diagnosis risk for imbalanced body temperature.

The diagnosis risk for poisoning has been related to inappropriate use of drugs, with emphasis in the lack of knowledge about the risks of using them incorrectly, resulting in harm to the patient. This diagnosis showed a statistically significant association with the variable years of study. A descriptive study conducted in Brazil on drug intoxication identified that, although there is no statistical significance, people with less than three years of study represented approximately half of the deaths due to drug intoxication [12], which leads to infer that the lower the level of education, the more likely the person is to make improper administration of medication and possible poisoning.

The variable gender showed a statistically significant association with the diagnoses: risk for peripheral neurovascular dysfunction, impaired tissue integrity, risk for impaired skin integrity, risk for perioperative positioning injury and delayed surgical recovery.

This study identified prevalence of female subjects, which presents greater evidence with regard to neuroendocrine disorders. In addition, pregnancy, postpartum and higher incidence of varicose veins favor the emergence of vascular disorders, such as chronic venous insufficiency, justifying the association between gender and risk for neurovascular dysfunction [13]. In addition, a higher incidence of varicose veins in women favors the development of injuries, especially in the lower limbs, such as venous ulcers, which explains the association of the variable gender with risk for impaired skin integrity and impaired tissue integrity [13].

There was statistically significant association between the variable reason for hospitalization and five diagnoses of the domain Safety/protection, namely: risk of aspiration, risk for impaired skin integrity, impaired tissue integrity, risk for perioperative positioning injury and delayed surgical recovery.

It is known that critically ill patients from major surgeries are at increased risk for entry of gastrointestinal and oropharyngeal secretions, solids or fluids in the tracheobronchial tract, due to several factors, such as ga-

stroparesis, presence of endotracheal tube, reduced level of consciousness, drug therapy, among others [14]. These factors influence the increased risk for aspiration.

Thus, patients with altered level of consciousness are more prone to aspirate secretions in the airways due to the decreased airway protective reflexes, such as cough and pharyngeal reflex. It is indispensable that the nurse performs a rigorous evaluation about the patient's level of consciousness to identify early changes in neurological status, as well as swallowing pattern, thus avoiding the risk for aspiration [5].

In the ICU context, the postoperative monitoring is the most common, since after major surgical procedures, patients are usually transferred to the Intensive Care Unit, where they are monitored continuously and receive the necessary assistance [15]. In this sense, the present study revealed that, regarding the reason for ICU admission, most of the patients were admitted due to postoperative in major surgeries or due to complications that culminated in performing the surgery.

Some medical conditions and/or surgical procedures require the patient to remain bedridden or in the operating table, even keeping some part of the body restricted to avoid accidents or iatrogenesis. However, the positioning of the surgical patient requires special attention because the sedated or anesthetized patients are unable to reposition themselves when necessary to relieve discomfort. For this reason, team members should be alert to the need for repositioning, avoiding the risk of injury from the perioperative period [16] [17]. These facts may explain the association between the reason for hospitalization and the risk for perioperative positioning injury, even because most of the research subjects were admitted to the ICU after surgery.

Surgical patients, during hospitalization in the ICU, can remain in sedation or under the influence of anesthetic drugs and also under the positioning constraint. Such factors may interfere with skin breakdown of the critical patient, considering, in particular, the shortage of tissue perfusion and circulatory and ventilatory impairment, multiple surgical approaches, sepsis, use of vasoactive drugs and impaired nutritional status [16]. For this reason, the association between reason for hospitalization and risk for impaired skin integrity and impaired tissue integrity is relevant.

It is emphasized the profile of the studied hospital with regard to surgical procedures, since it is a reference in the performance of major surgeries for the entire state, with emphasis on cardiovascular and neurosurgical procedures. These types of surgeries require specific care, making the knowledge about the nursing care recommended to these patients fundamental [18]. Due to the large complexity of most surgeries, from which patients are sent to the ICU, the possibility of delayed postoperative recovery is evident, justifying the existing statistical association between the diagnosis delayed surgical recovery and the variable reason for hospitalization.

The study results showed that most patients had comorbidities associated with the critical clinical picture. Comorbidity can be defined as the presence of co-existing or additional diseases with respect to the underlying disease. This can change the prognosis and length of hospital stay and increase health care-related costs [19].

The most frequent comorbidities in critically ill patients under intensive care are diabetes, hypertension and chronic obstructive pulmonary disease (COPD) [20]. Arterial hypertension and diabetes mellitus are related to the risk of injury, for generating vascular complications that cause poor circulation, interfering with the skin integrity and subsequently in the wound healing process [21]. The association of these two conditions causes the progression to the development of renal failure, lower limb amputations, blindness and cardiovascular disease, with a view that hypertension increases the risk for macrovascular and microvascular injuries, exacerbating cardiac events and the appearance of lower limb injuries [21].

Among the comorbidities, diabetes stands out with regard to the association with the diagnosis risk for peripheral neurovascular dysfunction, which is defined as the risk of disturbance in circulation, sensitivity or movement of an end [6]. In the context of the complications of diabetes, there is the peripheral neuropathy, that causes, in addition to the loss of protective sensation, biomechanical changes and loss of sweating that protects the skin against dryness, and therefore is related to the associated diagnosis, as can be verified by the statistical significance between the two variables [21].

Some sociodemographic variables, despite presenting significant associations with the nursing diagnoses of the domain safety/protection, did not show plausible clinic justification, as the following associations: risk for perioperative positioning injury and gender; delayed surgical recovery and gender; contamination and religion; risk for adverse reaction to iodinated contrast media and marital status; risk for latex allergy response and origin.

Facing the association of the nursing diagnoses of the domain safety/protection and the sociodemographic and clinical aspects of critical patients, such findings are relevant in view of the possibility of building care plans targeted to the major needs of this clientele, according to the context in which they are inserted. It is, therefore,

nurses' responsibility to direct their assistance with a view to reduce risks to which this population is exposed, reducing complications and achieving positive health outcomes.

5. Conclusions

We can conclude that the nursing diagnoses of the domain safety/protection identified in critically ill patients in Intensive Care Unit may be influenced by their sociodemographic and clinical characteristics.

From the results, it was possible to identify a total of twenty significant statistical associations, and fifteen have been clinically justified by the literature, namely: risk for aspiration and reason for admission; impaired dentition and age; risk for peripheral neurovascular dysfunction and gender and comorbidity; impaired skin integrity and comorbidity; risk for impaired skin integrity and gender and reason for admission; impaired tissue integrity and gender and reason for admission; risk for perioperative positioning injury and reason for admission; risk for thermal injury and age and comorbidity; delayed surgical recovery and reason for admission; risk for poisoning and years of study; and risk for unbalanced body temperature and age.

Five associations showed no clinical support, although the *p*-value was <0.05, namely: risk for perioperative positioning injury and gender; delayed surgical recovery and gender; contamination and religion; risk for adverse reaction to iodinated contrast media and marital status; risk for latex allergy response and origin. This finding indicates the need for further studies with different methods in order to justify the relationships identified here.

As a limitation to the study, we identified the difficulty for the measurement of certain clinical indicators, which did not relate to the customer in question or could not be measured due to the health status of patients, in addition to indicators that were related to knowledge of other professionals, including: aspects related to nutritional factors; indicators for the diagnoses impaired dentition and impaired oral mucous membrane.

Thus, the present findings will enable nurses to know and evaluate patients, identifying their peculiarities, with a view to adopt an individualized assistance and closer to the needs of each individual. Thus, by understanding the relationship between customers' human responses and their sociodemographic and clinical profile, positive health outcomes can be achieved, in particular in the prevention of risks facing the vulnerability characteristics, providing greater safety and protection to critical patients.

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