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ORIGINAL ARTICLE

CONTRIBUTIVE FACTORS FOR ADVERSE EVENTS OCCURRENCE IN AN INTENSIVE THERAPY UNIT: NURSE'S PERSPECTIVE FATORES CONTRIBUINTES PARA OCORRÊNCIA DE EVENTOS ADVERSOS EM UNIDADE DE TERAPIA INTENSIVA: PERSPECTIVA DO ENFERMEIRO FACTORES QUE CONTRIBUYEN A LA OCURRENCIA DE EVENTOS ADVERSOS EN LA UNIDAD DE TERAPIA INTENSIVA: PERSPECTIVA DEL ENFERMERO

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ABSTRACT

Objective: to evaluate nurses' attitudes about the conditions that contribute to the occurrence of adverse events. **Method:** a descriptive study, with a quantitative approach, performed with 28 nurses from the ICUs, in a public hospital in Fortaleza-CE, using the Predisposition to Adverse Events Scale (EPEA). In the exploratory analysis, the absolute and percentage frequencies were calculated for the nominal variables. In the case of quantitative variables, the mean and standard deviation and the means of the two scales (ideal and real) were presented. **Results:** the level of importance that nurses attribute to the structure and process aspects (ideal level), as well as, the perception about the existence of aspects of the structure and processes in their work environment (real level), was found in the study. **Conclusion:** the study determined the nurses' attitudes regarding the conditions that may favor the occurrence of adverse events through the EPEA items. **Descriptors:** Health Care; Intensive care units; Patient Safety; Nursing.

RESUMO

Objetivo: avaliar as atitudes dos enfermeiros sobre as condições que contribuem para a ocorrência de eventos adversos. **Método:** estudo descritivo, com abordagem quantitativa, realizado com 28 enfermeiros das UTI's, em hospital público de Fortaleza-CE, utilizando a Escala de Predisposição a Eventos Adversos (EPEA). Na análise exploratória, foram calculadas as frequências absolutas e percentuais para as variáveis nominais. No caso de variáveis quantitativas, foram apresentados a média e o desvio padrão e as médias das duas escalas (ideal e real). **Resultados:** encontrou-se, no estudo, o nível de importância que os enfermeiros atribuem aos aspectos da estrutura e processo (nível ideal) como, também, a percepção sobre a existência dos aspectos da estrutura e processos no seu ambiente de trabalho (nível real). **Conclusão:** o estudo determinou as atitudes dos enfermeiros frente às condições que podem favorecer a ocorrência de eventos adversos através dos itens da EPEA. **Descritores:** Assistência à Saúde; Unidades de Terapia Intensiva; Segurança do Paciente.

RESUMEN

Objetivo: evaluar las actitudes de los enfermeros acerca de las condiciones que contribuyen a la ocurrencia de eventos adversos. **Método:** estudio descriptivo, con un enfoque cuantitativo, realizado con 28 enfermeros de UTI's, en hospital público de Fortaleza-CE, mediante la Escala de Predisposición a Eventos Adversos (EPEA). En el análisis exploratorio, se calcularon frecuencias absolutas y porcentajes para las variables nominales. En el caso de variables cuantitativas, se presentan la media y desviación estándar y los promedios de las escalas (ideal y real). **Resultados:** Se han encontrado, en el estudio, el nivel de importancia que los enfermeros le atribuyen los aspectos de estructura y procesos (nivel ideal), como, también, la percepción acerca de la existencia de los aspectos de la estructura y procesos en su ambiente de trabajo (nivel real). **Conclusión:** el estudio determinó las actitudes de los enfermeros delante de las condiciones que pueden favorecer la ocurrencia de eventos adversos a través de los elementos de la EPEA. **Descriptores:** Cuidado de la Salud; Unidades de Cuidados Intensivos; Seguridad del Paciente.

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INTRODUCTION

A Patient safety is defined by the World Health Organization (WHO) as a minimally acceptable reduction of the risk of unnecessary harm associated with health care. The minimum acceptable reduction refers to what is feasible in light of the current knowledge, available resources, and the context in which care was provided against the risk of non-treatment or other treatment.¹

Complementing this concept, patient safety is nothing more than the reduction of unsafe acts in care processes and the use of the best practices described in order to achieve the best possible results for the patient.²

In literature and in everyday practice, circumstances that relate to adverse events that culminate in errors in health care are recognized. Mistakes that have generated millions of deaths worldwide. In 2004, the World Alliance for Patient Safety was created by the World Health Organization (WHO), with the primary objective of mobilizing global efforts in the safety of health care for all patients.

Receiving quality health care is an individual's right and health services must offer care that is effective, efficient, and safe, with patient satisfaction throughout the process. It is well known that health service systems are complex and have increasingly incorporated elaborate technologies and techniques, accompanied by additional risks in providing care to patients.⁴

Investments in patient safety are aimed at improving programs that aim to create a safety culture in health institutions, with a view to preventing any type of adverse events (AEs).^{4,5}

It is emphasized that the AEs are undesirable incidents, but they can be avoided and occur during the provision of health care resulting in damages to the patient, which can generate a compromise of the structure or function of the body or some harmful effect, such as worsening of the clinical picture, the occurrence of injury, physical incapacity, or even death, which may be physical, social or psychological.⁶

Unsafe health care results in significant morbidity and mortality that could be avoided, thus additional costs of recovering and sustaining health care damage would not be of major concern worldwide.⁷ The errors, violations and failures in the care process are mainly responsible for the incidents that

endanger the integrity of individuals submitted directly to said care.⁸

In the intensive care unit (ICU) the AEs merit particular analysis, taking into consideration that the severe patient presents characteristics that make them more susceptible to errors, which must be analyzed to identify structural problems, human resources, materials, equipment and process in order to support preventive measures of failures in the hospital environment, reinforcing the emphasis on the importance of good management.⁹

The Brazilian government's initiatives to improve patient safety in health services are in line with the activities of the World Alliance for Patient Safety based on actions developed by the National Agency for Sanitary Surveillance (ANVISA), based on international goals. From this perspective, the search and encouragement can favor the reduction of diseases and damages.¹⁰

In this perspective, the Ministry of Health (MH) instituted the National Patient Safety Program (NPSP), through Administrative Rule MS / GM No. 529, of April 1, 2013, with the general objective of contributing to the qualification of care in health, in all national and local health establishments, both public and private, according to the priority given to patient safety in health facilities on the political agenda of WHO member states and in the resolution adopted during the 57th World Health Assembly of Health.⁴

In Brazil, studies on the use of outcome indicators, especially AE, have been frequent. Overall, quality of care has been evaluated through the outcome indicator, such as assessing the success of a nursing care based on the occurrence of AE.

In the case of ICU nursing care, it should be studied as a product between the ideal working conditions (structure and process), derived from national and international recommendations to promote the quality and safety of ICU patients, and the risks and benefits due to the fallibility of the human being when giving care.¹¹⁻²

It was observed that there is a lack of scientific studies that address the instruments of analysis of nurses' attitudes, especially regarding aspects of the structure and processes that can compromise the quality of care.

A study developed by Lobão (2016), which constructed the Predisposal to Occurrence of the Adverse Events Scale (EPEA), was composed of 46 items, grouped into two dimensions: structure (12 items) and process (34 items). After validation and application, it

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obtained satisfactory results. The EPEA proposes to evaluate not only the level of importance that nurses assign to the aspects of the structure and process (ideal level), but also the perception about the existence of these aspects in their work environment (real level), which can compromise the quality of nursing care in the ICU, having as an outcome indicator the AE.¹³

Then came the interest in the theme where the importance of measures aimed at patient safety was instigated to evaluate the safety culture of nurses working in the ICU.

The study aims to contribute to the practice of intensive care nurses, since there are a number of minimal approaches to this subject; as well as to contribute with the institution to adopt preventive strategies for the occurrence of AEs. It is necessary that new research be carried out with the application of EPEA, so that the evidence of its effectiveness can be evaluated, because the results obtained could guide towards a safer assistance.

In view of the above, the objective was to evaluate the attitudes of ICU nurses on the conditions that contribute to the occurrence of adverse events based on the Predisposition to Occurrence of Adverse Events Scale (EPEA).

METHOD

A descriptive study, with a quantitative approach, carried out in a public reference hospital in the care of trauma victims located in the city of Fortaleza, Ceará. The hospital is composed of five ICUs, one pediatric and four adult; With 33 nurses composing the teams on fixed scales in the ICUs; the sample consisted of 28 nurses who accepted to participate in the study and signed the Informed Consent Form (ICF), of the five who did not complete the sample: one was on health leave, two refused to participate in the study and two were on vacation .

Data was collected from March to April 2016 through the initial application of the instrument that addressed identification data regarding: gender, age, marital status, employment status, nursing time, titration, individual income, family income, presence or absence of another job, if yes, specify the bond, weekly workload, time spent in hospital care, unit and shift in which they work in the hospital.

Later, the EPEA was used to evaluate the nurses' attitudes about the structure and processes that may compromise the quality of nursing care in the ICU, having as an outcome the adverse event. The scale has 46 items that

cover the dimensions: Structure (12 items) and Process (34 items). The structure dimension corresponds to the inputs, physical resources, financial, geographic location, equipment, accessibility and the qualification / specialization of the workforce, that enable the provision of the service; the processes dimension deals with the execution of actions by means of a set of assumptions of criteria, rules, standards, procedures and protocols, from an objective image, to achieve the best assistance.

The participants scored each of the items that described the predisposition of the occurrence of adverse events during nursing care in the ICU. There is a first column in which you will indicate the level at which you believe that the item expresses something important and that it should exist in their organization (Ideal Column) and then evaluate how much that characteristic exists in the ICU where they work (Real Column). The score is Likert type where: 1 - totally disagree; 2 - Disagree slightly; 3 - do not disagree; 4 - agree slightly and 5 - totally agree.

Data was organized and tabulated in the Excel program, version 2010. In the exploratory analysis, the absolute and percentage frequencies were calculated for the nominal variables. In the case of quantitative variables, the mean and standard deviation and the means of the two scales (ideal and real) were presented.

The project was sent to the Ethics and Research Committee receiving the opinion number 1,505,847.

RESULTS

A total of 28 (100%) female nurses participated in the study. With a mean age of 51.04 ± 5.25 years, with a minimum of 44 years and a maximum of 66 years. Regarding the age cut, it was verified that 15 (53.6%) nurses were aged less than or equal to 50 years.

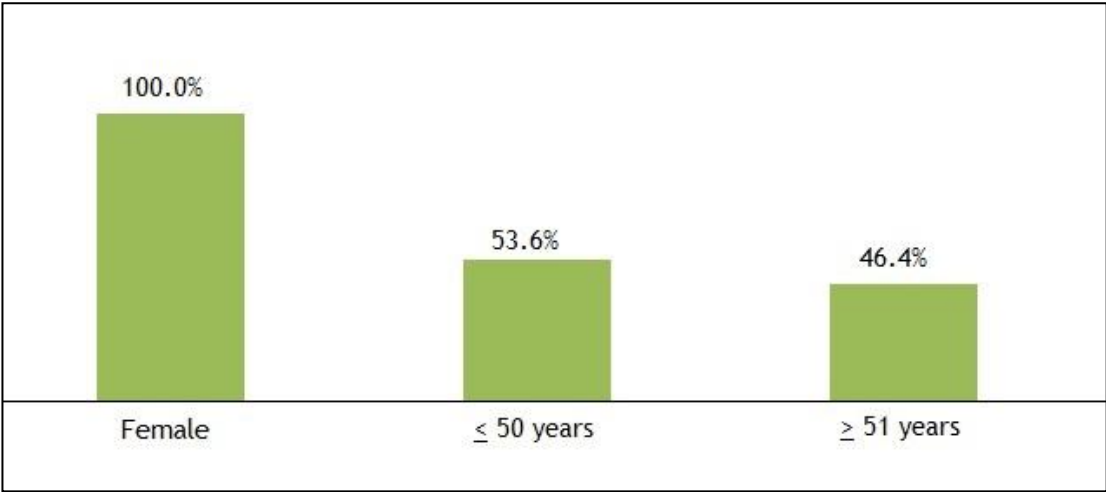


Figure 1. Characterization of the participating nurses regarding gender and age. Fortaleza (CE), Brazil, 2016.

Regarding the distribution of the professional variables analyzed in this study, according to Table 1, it was observed that all 28 (100%) nurses were public servants with the mean time of actuation in Nursing of 25.46 ± 4.1 years, where 19 (67.9%) had been working in the area for 25 years. The sample consisted, in the majority, of 21 (75%) specialists and seven (25%) masters. Doctors or postdocs were not found.

Table 1. Distribution of nurses' professional variables. Fortaleza (CE), Brazil, 2016.

Variables	n	%
Employment relationship		
Public server	28	100
Cooperated	0	-
Nursing work time (in years)		
Up to 25 years	19	67.9
Over 25 years	09	32.1
Qualification		
Specialist	21	75
Master	07	25
Doctor	0	-
Post doctor	0	-
Exercise other gainful activity		
Yes	12	42.9
No	16	57.1
Weekly load (in hours)		
Up to 40 hours / week	18	64.3
Over 40 hours / week	10	35.7
Duration of the Intensive Care Unit (in years)		
Up to 25 years	25	89.3
Over 25 years	03	10.7

Still analyzing the data contained in Table 1, it was verified that 16 (57.1%) nurses performed other paid activity. The average weekly workload was 39.89 ± 14.01 hours, and 18 (64.3%) worked up to 40 hours. As for the time spent in the ICU, the mean was 22.9 ± 4.4 years. Almost all of the nurses had been in the ICU for 25 years - 25 (89.3%).

In the analysis of the EPEA dimensions, the structure dimension presented an ideal level average of 4.9 ± 0.32 , and real of 2.96 ± 1.35 . As for the process dimension, the ideal level average was 4.83 ± 0.43 , and the actual level was 2.77 ± 1.37 (Figure 2).

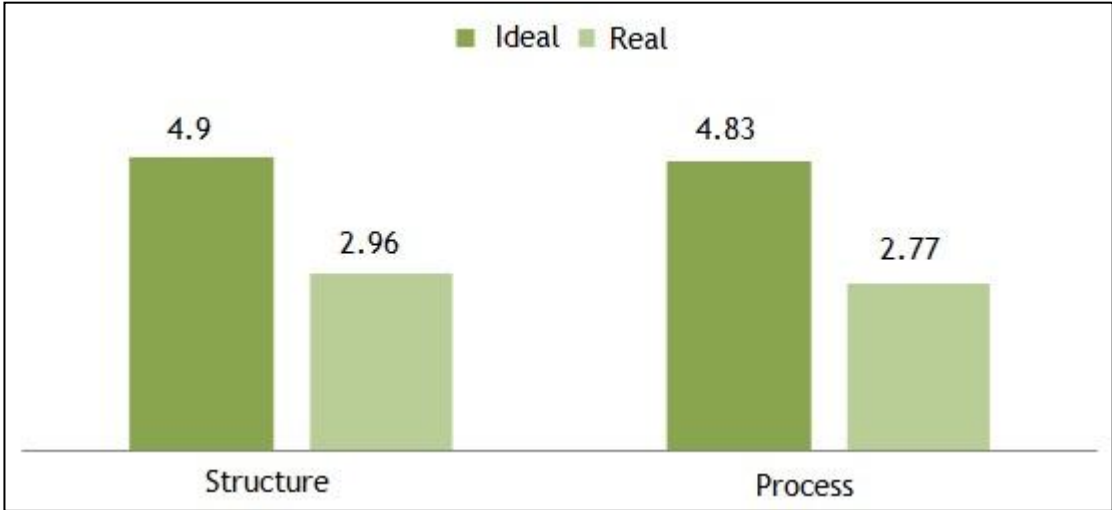


Figure 2. Distribution of the ideal and real levels averages of the structure and process dimensions of the EPEA. Fortaleza (CE), Brazil, 2016.

Among the items of the structure dimension considered ideal, those who had the highest average five (5.00) of agreement among nurses as the most important were the items "Distribution of beds in a way that favors the direct visualization of hospitalized patients" and "have gel alcohol dispensers

between the beds and at the ICU entrance. There was disagreement among the nurses about the perception about the existence of these aspects in their work environment (real level). No item with an average of four or more (4.00) was verified (Figure 1).

Items	Ideal	Real
Adequate lighting for the execution of activities	4.96±0.19	3.75±1.04
Distribution of beds in a way that favors the direct visualization of hospitalized patients	5.00±0.00	3.68±1.25
Permanent training of the Nursing team in the use of biomedical equipment	4.96±0.19	2.50±1.29
Availability at the nursing post of standards manual, routines and procedures updated annually	4.82±0.61	2.82±1.33
Have standardization of solutions and dilution of drugs	4.93±0.38	2.57±1.45
Have catheters, probes and syringes with devices that prevent improper connection or accidental disconnection	4.96±0.19	2.75±1.32
Have your own form for reporting adverse events	4.86±0.59	2.75±1.51
Provide closed positive pressure infusion valve	4.82±0.39	2.86±1.46
Dispose of gel alcohol dispensers between the beds and at the ICU entrance	5.00±0.00	3.64±1.37
Have equipment of different colors according to purpose	4.61±0.79	2.57±1.45
Have a permanent education committee	4.96±0.19	3.00±1.39
Have a hospital quality of care program	4.89±0.31	2.57±1.32

Figure 3. Distribution of the mean and standard deviation of the items of the structural dimension of the EPEA. Fortaleza (CE), Brazil, 2016.

Regarding the items of the dimension of processes, among the ideals, those that were considered important by all nurses, presenting the highest average five: "Stimulate the Nursing team and report the occurrences of adverse events"; "Using the pressure ulcer incidence indicator"; "To sanitize the hands"; "Apply the SAE steps"; "Using the Glasgow scale" and "Using the hospital infection

incidence indicator". When confronted with the reality of their industry, the items that had an average of more than four, indicating greater agreement, were "Identify infusion pumps (solutions, sedation and vasoactive drugs)" and "Use the Braden scale in the diagnosis of risk for development of decubitus ulcer "(Figure 2).

Items	Ideal	Real
Encourage the Nursing staff to report occurrences of adverse events	5.00±0.00	2.89±1.45
Use of pressure ulcer incidence indicator	5.00±0.00	3.25±1.38
Sanitize your hands	5.00±0.00	3.57±1.20
Risk management according to a specific protocol (example: RDC-07-2010)	4.96±0.19	2.86±1.21
Drug dispensing system per unit dose and identified by patient	4.93±0.26	3.14±1.67
Use checklists (example: bed assembly, shift on call, and pending diagnostic exams)	4.93±0.26	2.00±1.33
Use at least two identifiers for patient identification (name and date of birth)	4.82±0.39	3.36±1.62
Frequent patient monitoring, analyzing compatibility with data obtained by multiparameter monitors	4.93±0.26	3.39±1.55
Identify teams with solutions label and date of exchange (solutions, sedation and vasoactive drugs)	4.93±0.26	3.86±1.21
Identify infusion pumps (solutions, sedation and vasoactive drugs)	4.93±0.26	4.29±0.94
Use severity index or prognostic index: value that reflects the degree of a patient's organic dysfunction (eg APACHE 2)	4.64±0.91	1.86±1.33
Use evidence-based clinical protocols (eg extubation and weaning from mechanical ventilation)	4.82±0.55	2.64±1.47
Do not use acronyms that allow ambiguous interpretation (example: IU X IV; u X 0)	4.93±0.38	2.75±1.48
Using the accidental extubation incidence indicator	4.68±0.61	1.96±1.26
Use the bed fall incidence indicator	4.71±0.60	2.54±1.64
Using the Ramsay or RASS Sedation Scale	4.96±0.19	3.36±1.45
Apply protocols to identify patients with unknown, comatose, confused or under sedation	4.64±0.91	2.61±1.64
Apply the SAE steps	5.00±0.00	3.54±1.37
To use pain as the 5th vital sign	4.79±0.57	2.00±1.56
Use the fall risk assessment scale (example: Morse scale)	4.61±0.99	1.46±1.04
Using the Glasgow Coma Scale	5.00±0.00	3.79±1.10
Use pain intensity rating scale	4.71±0.66	2.00±1.44
Use the Braden scale in the diagnosis of risk for the development of decubitus ulcer	4.96±0.19	4.07±1.21
Daily clinical discussion of the patients' clinical charts among the nurse assistants and the ICU Nursing coordination	4.89±0.31	1.75±1.27
Perform systematic change of decubitus every two hours in patients with Braden <17	4.96±0.19	2.11±1.31
Use double-checking protocol for the administration of drugs	4.68±0.86	2.00±1.44
Protect the patient's skin from excess moisture, dryness, friction and shear	4.93±0.26	3.61±1.17
Use insulin therapy protocol	4.57±1.10	2.25±1.51
Use bed-bath protocol for patient on mechanical ventilation	4.54±0.92	2.11±1.34
Using bed-bath protocol for patient using vasoactive drug	4.43±1.07	2.07±1.30
Careful use of mechanical containment in case of psychomotor agitation	4.79±0.50	3.29±1.38
Infusion of blood products exclusively or with SF 0.9%	4.96±0.19	3.04±1.57
Use the incidence indicator of non-compliance in medication administration	4.71±0.85	2.21±1.37
Use the hospital infection incidence indicator	5.00±0.00	2.71±1.38

Figure 4. Distribution of the mean and standard deviation of the EPEA process dimension items. Fortaleza (CE), Brazil, 2016.

DISCUSSION

Participants were 28 (100%) female nurses, with a mean age of 51.04 ± 5.25 years, with a minimum of 44 years and a maximum of 66 years, with the predominance of married women - 16 (57.2%), .

Nursing takes on its trajectory, from its origins to its modern professionalization, outlines that go beyond the technique and practice that are proper to this profession. Its historical course maintains direct connections with the social history of work, women and the culture of care.¹⁴

Regarding the professional variables, all 28 (100%) nurses were public servants with the mean time of performance in Nursing of 25.46 ± 4.1 years, where 19 (67.9%) nurses had been working for 25 years in the area, resulting in a

weekly average workload of 39.89 ± 14.01 hours, in which 18 (64.3%) worked up to 40 hours a week. With regard to qualification, 21 (75%) were specialists and seven (25%) were masters. Doctors or postdocs were not found.

Regarding the workload, a study shows that the professionals who work beyond the prescribed time become more exposed to the risk of failure, and the longer the shift, the greater the number of accidents.^{15,16}

Still in this context, authors point out that AEs are commonly associated with individual human error, but the conditions of work, structural aspects and complexity of the activities developed should be considered as their dislocators. The situations that predispose to the risk of adverse events include technological advances, deficient improvement of human resources, lack of

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motivation, lack of application of Nursing Care Systematization (NCS), supervision without adequate supervision and overload of service and hours of work.¹⁷

Linked to this, it is noticed that in a ICU where the clinical conditions of the patient oscillate between narrow limits of normality/abnormality, in which small organic changes can lead to severe deterioration of body function, the risk is greater.

It is important to emphasize the importance of nursing assistants to invest in their training, even with the difficulties often mentioned in relation to the adjustment of service schedules with the schedules of the improvement courses.

A great incentive is being provided through the offer of Professional Masters (PM) with flexible hours that can contemplate the needs of nurses who are exclusively in care.

The PM aims at enabling the training of professionals outside the academy who know how to develop and use research to add value to their professional activities, taking a critical analysis of the work practice and encouraging the development and implementation of technological production.¹⁸

The level of importance that the participating nurses attribute to the aspects of the structure and process (ideal level) as well as the perception about the existence of aspects of the structure and processes in their work environment (real level) Which may compromise the quality of nursing care.

In this context, the EPEA application values stand out, in which the structure dimension presented an ideal level average of 4.9 ± 0.32 , and real of 2.96 ± 1.35 . Regarding the process dimension, the ideal level average was 4.83 ± 0.43 and the actual level was 2.77 ± 1.37 .

Regarding the structure dimension that nurses considered to be ideal, it was highlighted the "Distribution of beds in a way that favors the direct visualization of patients hospitalized" and "To have dispensers of alcohol gel between the beds and at the entrance of the ICU", A disagreement was observed among the participants regarding the perception about the existence of these aspects in their work environment (real level).

These findings have been identified as infection control, which is a constant reality in the hospital environment, mainly due to the large number of antibiotics used and the consequent increase in infections caused by multiresistant bacteria. Therefore, there is a worldwide concern in the control of these, in the damages generated for the patient who

acquire them and also in relation to the costs resulting from these infections.¹⁹

Regarding the EPEA process dimension, those considered ideal by all nurses were: "Use of pressure ulcer incidence indicator"; "To sanitize the hands"; "Apply the NCS steps"; "Using the Glasgow Scale"; "Using the Hospital Incidence Incidence Indicator" and "Stimulating the Nursing Staff and Reporting the Occurrences of Adverse Events".

The practice of utilizing the material and technological resources and the ethical and legal principles of the work process of the Nursing team is an inbuilt assumption in the process of nursing care and patient safety in the ICU.^{20,21}

The study of Lima and Barbosa (2015) showed the importance in the monitoring of the AEs, through the application of quality indicators, with the intention of improving of safety and patient care.¹² In a study carried out in two ICUs in the city of Florianópolis, the need to define protocols, risk barriers, patient identification, unit dose and double checking, training and materials and equipment in quantity and quality, as well as adequate numbers of professionals.²²

It is important to consider that the implementation of the NCS in ICU contributes positively to the quality of the care by reinforcing a better organization and structuring of the sector, where the integration of this instrument in the ICU ensures greater safety to the nurse, facilitates the exchange of information, allows individualized and systematized attention, The creation of the bond and the humanization of care.²³

According to a study that analyzed 70 researches on the relevant aspects regarding the use of the NCS in the ICU, they showed the difficulties encountered in implementing the NCS in the ICU, a place where, despite the difficulties regarding the various duties of the nurse, The initiative to apply and visualize the results of their work due to the importance and advantages of using NCS in their service.²⁴

It is noticed the concern with the adequate communication of the occurrence of AE among the members of the team, attitude also considered basic principle of the practice of Nursing. In this regard, researchers ensure that documentation during the shift, information sharing, and incident reports are considered to be the most formal aspects of Nursing communication with a view to ensuring its effectiveness.²⁵

Regarding the records, a study showed that the nursing teams studied have been in favor

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of the notification of AEs and the adoption of measures to minimize damages. However, notification of AEs is still socially neglected given the existing punitive culture. There is still great difficulty in accepting the error, fearing punishment and social incomprehension.²⁶

When confronted with the reality of the ICU, nurses were more in agreement with what would be ideal in relation to: "Identifying infusion pumps (solutions, sedation and vasoactive drugs)" and "Using the Braden scale in diagnosing developmental risk of ulcer by decubitus".

A research carried out in a Clinical Medical Unit of Santa Catarina identified how the packaging, distribution and organization of medications can cause errors and, consequently, AEs in Nursing care. Among the results, the large amount of leftover drugs was highlighted, since their dispensing is individual and inadequate storage, with unidentified drugs, heaped and overlapping, as well as open bottles and containers, makes it difficult to locate.

The literature shows that decubitus ulcers stand out as preventable events by the adoption of preventive measures such as monitoring, inspection and protection of the skin, the application of instruments, as well as change of patient's decubitus position. The health professional needs to be aware of the problems that pressure ulcers can cause to the patient, the family and the hospital institution.²⁷

The safety culture evaluation is seen as the starting point to initiate the planning of actions that seek changes to reduce the incidence of AE and, consequently, to ensure safe health care.²⁸⁻⁹

CONCLUSION

The study determined nurses' attitudes towards conditions that may favor the occurrence of adverse events. Items of the EPEA that could compromise the quality of care in the ICU (ideal level) were highlighted, as well as the disagreement among nurses about the perception of these aspects in their work environment (real level).

It is possible to conclude that it is important to act in the face of problems in search of solutions that provide improvements to the clinical practice and that strengthen ICU patient safety, including the adoption of good practices, based on scientific evidence, training and continuing education with all the professionals involved in the process of patient care.

The importance of the use of instruments for reporting adverse events by institutions, as well as the adoption of other notification strategies, should be highlighted, since they may contribute to the monitoring and control of occurrences and to the development of effective preventive measures.

The number of nurses is limited as it is a public institution and with old employees due to the absence of contests and new admissions of employees in the sector. The absence of the use of some items in their reality is also an important factor for the judgment of the items, making the score in the real level were low since they judged them to be important in the ideal level.

The research was valuable for the establishment of evidences that indicate the advances and the needs of improvements. The application of the EPEA in other private establishments was suggested, in order to compare nurses' attitudes regarding the level of importance and perception of the aspects that contribute to the appearance of adverse events.

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