



REVISIONES

The stressors factors in adult patients interned to an intensive care unit

Os fatores estressores em pacientes adultos internados em uma unidade de terapia intensiva: uma revisão integrativa

Los factores estresantes en pacientes adultos internados en una unidad de cuidados intensivos: una revisión integradora

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ABSTRACT:

The present study is an integrative review of the literature that **aims** to analyze the available evidence in the literature about the stressors reported by patients hospitalized in an adult intensive care unit. The articles were searched in the databases LILACS, Scielo, PubMed and BDNF published during the period from 1997 to 2015. The articles about the theme at hand have been included in Portuguese and Spanish. The sample consisted of 13 articles, where 40 stressors were identified, categorized as environmental, physiological, emotional / psychological and social, divided into 16 subcategories: unfavorable situations, noise, ineffective thermoregulation, disturbed sleep patterns, impaired bed mobility, impaired verbal communication, pain, lack of attention / individuality, anxiety, fear, loss of autonomy, interrupted family process, impaired social interaction, impotence, feeling of impotence and compromised family coping. It has been verified that the theme is relevant, but still in early stages, considering the nursing care gaps to be implemented. It is evident that when stressors are identified, evaluated and diagnosed by nurses they can be transcribed as nursing care in a plan of individual care to the patient, enabling the recovery and rehabilitation process during hospitalization in the ICU.

Keywords: Nursing Care; Post-Traumatic Stress Disorders; Physiological Stress; Critical Care; Intensive Care Units; Psychological stress.

RESUMO:

O presente estudo trata-se de uma revisão integrativa da literatura que objetiva analisar as evidências disponíveis acerca dos fatores estressores relatados pelos pacientes internados em uma unidade de terapia intensiva (UTI) adulto. A busca dos artigos foi realizada nas bases de dados LILACS, Scielo, PubMed e BDNF publicados entre o período de 1997 a 2015. Foram incluídos os artigos que abordaram a temática do estudo em relação a questão norteadora, nos idiomas português e espanhol. Dos 13 artigos selecionados, foram identificados 40 fatores estressores, categorizados em ambiental, fisiológico, emocional/psicológico e social, divididas em 16 subcategorias: situações desfavoráveis, ruídos, termorregulação ineficaz, padrão de sono perturbado, mobilidade no leito prejudicada, comunicação verbal prejudicada, dor, falta de atenção/individualidade, ansiedade, medo, perda de autonomia, processo familiar interrompido, interação social prejudicada, impotência, sentimento de impotência e enfrentamento familiar comprometido. Consta-se que o tema é relevante, porém, ainda incipiente tendo em vista as lacunas de cuidados de enfermagem a serem implementados. Fica evidente que os fatores estressores quando identificados, avaliados e diagnosticados pelos enfermeiros, podem ser transcritos como cuidados de enfermagem num plano de cuidado individual ao paciente, viabilizando o processo de recuperação e reabilitação durante a hospitalização na UTI.

Descritores: Cuidados de Enfermagem; Transtornos de Estresse Pós-Traumáticos; Estresse Fisiológico; Cuidados Críticos; Unidades de Terapia Intensiva; Estresse Psicológico.

RESUMEN:

El presente estudio se trata de una revisión integrativa de la literatura que tiene como **objetivo** analizar las evidencias disponibles sobre los factores estresantes relatados por los pacientes internados en una unidad de cuidados intensivos (UCI) adulto. La búsqueda de los artículos ha sido realizada en las bases de datos LILACS, Scielo, PubMed y BDNF publicados entre los años de 1997 a 2015. Han sido incluidos los artículos que abordaron la temática del estudio acerca de la cuestión guía en los idiomas portugués y español. De los 13 artículos seleccionados, han sido identificados 40 factores estresantes, categorizados en ambiental, fisiológico, emocional / psicológico y social, divididos en 16 subcategorías: las situaciones desfavorables, los ruidos, la termorregulación ineficaz, el patrón del sueño alterado, la movilidad en la cama alterada, la comunicación verbal perjudicada, el dolor, la falta de atención / individualidad, la ansiedad, el miedo, la pérdida de la autonomía, la interrupción de los procesos familiares, la interacción social alterada, la impotencia, el sentimiento de impotencia y el enfrentamiento familiar comprometido. Se constata que el tema es relevante, sin embargo, todavía incipiente, teniendo en cuenta las lagunas de cuidados de enfermería a ser implementados. Resulta evidente que los factores estresantes, cuando identificados, evaluados y diagnosticados por los enfermeros, pueden ser transcritos como cuidados de enfermería en un plan de cuidado individual al paciente, viabilizando el proceso de recuperación y rehabilitación durante la hospitalización en la UCI.

Palabras clave: Atención de Enfermería; Trastornos por Estrés Postraumático; Estrés Fisiológico; Cuidados Críticos; Unidades de Cuidados Intensivos; Estrés Psicológico.

INTRODUCTION

The high specialized and complex technology used in the intensive care units (ICU), when proportionate the continue monitoring of the patient's health context⁽¹⁾, increases the chances of survivorship of patients under unstable and critical care⁽²⁾. However, it favors factors that trigger distress among health professionals, hospitalized patients and family⁽³⁾.

The patient or their relatives' response to distress is related to the type, intensity and duration of triggering factors, for it leads to psychological chances, such as fear, anxiety, depression and post-traumatic syndrome, as well as physiological instabilities, for example, predisposition to infections and diminishment of wound healing⁽⁴⁾. These distress factors get intensified when overage patients get hospitalized via emergency room, for at the most of times they are not prepared to getting ill nor hospitalized, which compromises the course of their lives with social isolation⁽⁵⁾.

Among the factors cited by the patients, the structural aspects, such as quantity of technological equipment that the patient uses; organizational aspects of assistance,

which demand rigorous control and attention from the patient; social aspects, caused by the family detachment, work and daily activities with the family in their habitual environment; and, finally, but not less important, the psychological factors, such as the risk for incapacity or death were highlighted⁽⁶⁻⁸⁾.

Nursing, as part of the ICU, has as major role to diagnose, intervene and seek for resolutions towards distress factors, for one of its objectives is to provide humanized and holistic care, which boosts the establishment of affective bonding and minimize unpleasant feelings in hospitalized patients and their relatives⁽³⁾. The nursing intervention is any treatment based on the professional judgment and clinical knowledge, which must be performed by a nurse in order to improve patient's results⁽⁹⁾.

Against the foregoing, there is the necessity to identify not only the stressors under the patient's perspective, but the singularities that triggers the distress, in order to reveal the possible nursing care interventions that may help the patient out in the process of rehabilitation. For such purpose, the objective of this study is to analyze the evidences available on the literature on the distress factors in adult patients hospitalized in an intensive care unit for adults.

MATERIAL AND METHOD

This qualitative study aims to identify the scientific production on the distress factors that are mentioned by patients hospitalized in an ICU for adults. In order to attain the objectives, the RI based on Cooper⁽¹⁰⁾ was chosen. This method reunites results from other researched about the same topic, with the purpose to synthetize and analyze these data, developing a more approachable explanation on the studied phenomenon. In what concerns the study design, five steps described by Cooper⁽¹⁰⁾ were followed: problem formulation, data collection, data assessment and analysis, results interpretation, and presentation of results. Through the deepening of the thematic and definition of the relevant aspects of this study, the delimitation of the problem was possible, which began with the following question: What is/are the distress factor/s for adult patients in an intensive care unit for adults?

For data collection, the databases *Literatura Latino-Americana e do Caribe em Ciências da Saúde* (LILACS), *Scientific Eletronic Library Online* (SciELO), PubMed e *Banco de Dados em Enfermagem* (BDENF) were used. The descriptors for health sciences from DeCS were in Portuguese and Spanish, which were also separated by the Boolean operator AND. These were: nursing care, post-traumatic syndrome, physiological distress, critical care, intensive care unit, hospitalization, psychological distress, humanized care, psychological resilience, and hospitalized patients.

The inclusion criteria involved nursing articles that approached the topic in the Portuguese and Spanish languages, full-text online available, published from 1997 to 2015, such as annals, national articles on nursing, qualitative or quantitative, theoretical review, integrative review and systematic review. The Intensive Care Unit Environmental Stressor Scale – ICUESS defined the cutoff. This scale was traduced and adapted to the Brazilian context in 1997 by Novaes et al.⁽¹¹⁾.

Articles that approached distress factors for children and newborns, or the ones carried out with animals, studies that aimed the professional or relatives' perspective on distress factors, studies available in audio or video, and the ones that were not available online were excluded.

For the assessment and recording of data extracted from the scientific articles, a form was elaborated for individual assessment, which contained the following information: identification of the article (title, country, authors and their own titles, periodic, year, volume, number, descriptors/keywords); objective/question of the study; population; methodology, results (related to the problem question).

For data analysis and results interpretation, a general synoptic chart was elaborated, which enabled the grouping of distress factors by similarity.

Considering the ethical aspects, authorship and ideas, concepts and definitions of the authors of the analyzed productions were assured, which should be presented in a trustworthy way, described and quoted according to the precepts of Law no. 9610/98.

RESULTS AND DISCUSSION

The sample constituted in 973 articles, from which 960 were excluded because it did not contemplate the theme, the inclusion criteria, or it was repeated. After the profound reading of the publications, the selected sample was 13 articles, from which four were from LILACS, weight from BDEF, one from SciELO, and none of them from PUBMED. The accentuated number of excluded publications happened for the deficit of productions that discussed the subject under patient's perspective.

Regarding the year of publication, articles from 2002 to 2015 were found. It was possible to notice a predominance of studies in 2007, 3 articles (23.07%), and the lack of publications from 1997 to 2005. Moreover, there was only one publication in 2015. This result demonstrates that the period of articles publication grouped itself mainly from 2007 to 2011, and did not present correlation with the publication and validation of ICUESS in 1997.

In what concerns the country of origin, it was possible to notice that the distress factors still are incipient among Brazilian articles, being found 12 publications, mainly among Spaniards, for only one scientific publication was found on the topic. This interference betakes the necessity to focus on the point of view of patients⁽⁸⁾, taking as a premise the beliefs, values and expectations of their experience in an ICU.

The analyzed articles stood out four considerable categories of distress factors under patients' perspective, which were: environmental, physiological, emotional/psychological, and social. The categories presented a total of 16 subcategories, and 40 distress factors, as described in the chart 1.

Chart 1: Distress factors brought up accordingly to the sample

Category	Subcategory	Distress factors	% (n)
Environmental	Disturbed sleep pattern	Light constantly on	30.8% (4)
		Sleep interrupted by the team	7.7% (1)
		Insomnia	53.8% (7)
		Being constantly manipulated by professionals	7.7% (1)
		Change of habitual patterns of sleep and rest	23% (3)
	Noises	Listening to unknown sounds and noises	7.7% (1)

		Listen to the noise and alarm of technological equipment	7.7% (1)
		Beep noises	15.4% (2)
	Ineffective thermoregulation	Being in a very hot or cold environment	7.7% (1)
	Unfavorable situations	Layout of ICU bed	7.7% (1)
Emotional/Psychological	Fear	Fear the unknown	15.4% (2)
		Fear of getting AIDS	7.7% (1)
		Being afraid of procedure and pain	7.7% (1)
		Fear of death	23% (3)
	Anxiety	Feeling suffocated	7.7% (1)
		Unaware of ICU length of stay	7.7% (1)
		Being punctured by needles	7.7% (1)
		Financial concern	15.4% (2)
		Being upset	7.7% (1)
	Loss of autonomy	No privacy	30.8% (4)
		Not having control of oneself	23% (3)
		Loss of autonomy	7.7% (1)
		Not having explanations about the treatment	7.7% (1)
		Feeling ashamed to expose the body	7.7% (1)
Lack of attention/ Individuality	Feeling that the nursing team is more attentive to other patients than you	7.7% (1)	
Social	Feeling of Impotence	Have specialized technological equipment around you	15.4% (2)
	Impotence	Staying stuck with nothing to do	7.7% (1)
		Being in a harrowing place	7.7% (1)
		Experiencing the suffering of the other	7.7% (1)
	Committed family engagement	Suffering personal routine changes	15.4% (2)
		Feeling homesick	53.8% (7)
	Impaired social interaction	Unbind the external environment	30.8% (4)
	Family process interrupted	Being unable to play the role in the family	15.4% (2)
Changing family coexistence		7.7% (1)	
Physiological	Pain	Feeling pain	38.5% (5)
	Impaired mobility	Failing to move hands and arms due to vein medication	30.8% (4)
		Being trapped by pipes	23% (3)
		Listen to people talking about you	7.7% (1)
	Impaired verbal communication	Unable to communicate	30.8% (4)
		Feeling Thirsty	23% (3)

Source: survey data (2017)

The method of integrative review enabled the comprehension of the problematic of stressors in adult patients hospitalized in an intensive care unit, and the identification of possible nursing care in the social, psychological, emotional, physiological and environmental scopes.

In the environmental category, the subcategory “disturbed sleep pattern” was influenced not only by the daily routine imposed by the ICU, but also by the characteristic of being a closed and high-complex unit, which brings along new coping situations⁽⁷⁾. Therefore, we can infer that the period of hospitalization in the ICU may trigger distinct levels of stressors for the patients.

The environment triggers a higher difficulty to sleep, for patients’ reports focused on the unknown noises of the technological equipment that present different intensities, excessive and constant luminosity, the performance of procedures, staff movements, and the constant manipulation of professional besides the bed⁽¹²⁻¹⁶⁾. The reports still affirm that the noises are accentuated when simultaneously occur the alarms triggered by technological equipment and when it is associated to the noise of the nursing team⁽⁷⁾.

As during sleep different physiological and metabolic changes happen, which are connected to organic functions that help patient’s recovery⁽¹⁶⁾, it concerns to the nursing team interventions that propitiate qualified sleep and rest patterns. In other words, nursing must transform the distress factors during nursing care, such as reducing the lights during the night, position the patient on the bed in a comfortable way for the patient, and diminish the noises and the unnecessary movement in the room.

Accordingly to a research developed at a teaching hospital in São Paulo, the disposition of the beds may influence the levels of patients’ distress, for the distance from the nursing station provides more privacy, less luminosity and noises⁽¹⁶⁾. Thus, disposing the lucid and oriented patients in a way that they may feel comfortable in the ICU may help to diminish the intensity and duration of the exposition to the environmental stressor.

In the ICU, generally, the air conditioner temperature is extremely cold or hot. Because patients have some movement limitations due to the situation imposed by the environment they are inserted in, and their health status, they end up becoming more sensitive to the temperature, which makes them consider the environment as way too cold or too hot⁽¹⁷⁾.

In the category “physiology”, patients affirmed that impaired mobility in the bed is a stressor, for they find themselves attached to invasive and non-invasive devices⁽¹³⁾. They get this feeling of being stuck⁽³⁾, besides having an impaired mobility, which triggers the feeling of being impotent⁽⁸⁾, once they lose the control about their own situation⁽¹⁸⁾. In order to diminish this feeling on patients and the impaired mobility, it is up to the nurses and other health professionals to periodically evaluate the quantity of devices and technological equipment used, for the long exposure to these stressors provoke discomfort at different levels of intensity and increases the risk for infections⁽¹⁹⁾.

Other physiological factor associated to the already mentioned type regards the intensity and duration of these devices, which are described by patients as acute pain, which alters the respiratory, nervous, sensorial and cardiovascular systems⁽¹⁵⁻¹⁷⁾. The triggering of the consequences generated by acute or chronic pain may compromise the emotional status of the patient, which induce to anxiety and psychomotor agitation, leading the patient to remove the equipment or devices needed for monitoring, which can cause even more harm to him/herself⁽¹⁴⁾.

Considered the fifth vital sign, pain should not be ignored by the nursing team⁽²⁰⁾ and other health providers, for it is a stressor that reverberates consequences that will compromise the psychological, emotional and physiological aspects of the patient.

This, independently of the patient's status, pain characteristics must be systematically assessed through verbal and numerical scales, or even so by face expressions⁽²¹⁾.

Other distress factor that regards the physiological category is impaired verbal communication of patients that present some type of specific commitment or make use of orotraqueal tubes and/or enteral^(5,6,13,17). Under the perspective of relatives and professionals, impaired verbal communication is also perceived as a stressor, mainly when it implies the impossibility of making decisions for the patient, transferring such responsibilities to them⁽²²⁾. Therefore, it is up to the professionals to pay attention to signs and symptoms of patients, looking for the identification of methods for non-verbal communication.

As one of the stressors cited by the patient is the difficulty of expressing thirst, one of the nursing care is keeping the patient's lips and mouth moist, using water sprays along with lip moisturizer and frequently reassess the real necessity for the tubes or probes, providing greater well-being, improved bed mobility and, no less, quality of sleep^(17,23). Another nursing care linked to communication is the use of notebooks or engravings to enable patients to express themselves in a nonverbal way⁽⁶⁾.

Among the social aspects, we highlight the rupture of the patient with his family context and daily life, characterized as an interrupted and committed family coping^(5,6,8,13,15-17,19,24). It is believed that this rupture can be generated by the physiological aspect, which impedes the decision making by the patient, as by the environmental aspect due to the physical space of the ICU.

A quantitative study, developed in two hospitals, one public and one private, located in the interior of the State of São Paulo, identified that the restructuring of the family, when viewed by the patient, is capable of generating psychological distress⁽¹²⁾. Other authors affirm that the stressor is associated to the damaged home maintenance, for the most part of the individuals that composed the sample were active employees that provided to their homes and to the other family members^(12,17).

According to reports from lucid and oriented patients, with no communication difficulties, a stressor is the restriction of bedside visits because they cannot have enough time to obtain information from their family members and an understanding of the current routine of the patients without their physical presence⁽¹⁷⁾. Thus, one of the strategies to be used by nurses is to flexibilize and extend the visiting times, since the presence of the relative is able to transmit tranquility and approximation between the family and the patient^(5,7,16,23).

Instability in the face of the health and illness process drives the patient to reflect on his/her current and future state of health, as well as on the life context of his family members. Regardless of the nature of these reflections, the patient eventually awakens emotional and psychological factors such as anxiety and fear, characterized as a reaction to a particular perceived threat that is consciously recognized as a danger⁽¹⁸⁾ that can still occur. Fear can come from known factors, such as pain and death⁽⁸⁾, or unknown, such as noise from technological equipment unknown to patients, which they do not recognize as a priority or even the consequences of their health and disease process^(7,8).

Fear may also be associated to the risk of contracting Acquired Immunodeficiency Syndrome (AIDS), due to the manipulation of other patients in the same hospital environment⁽¹⁷⁾. It is known that current care and the use of disposable devices and devices reduce the spread of AIDS, however, it is incumbent on nursing to guide patients about the safety of the procedures as well as the treatment performed,

allowing an acceptable margin of confidence between the patient and health professionals.

The loss of autonomy in the ICU environment, categorized as a stressor of the emotional and psychological category, may be related to the level of dependence⁽²⁴⁾. It may also be associated to lack of privacy, body control or lack of information about the care to be performed^(8,12,14,15,17,19). The surveillance and control of the unstable clinical picture by nursing and the use of technological equipment considered indispensable for the success of the therapy⁽²⁵⁾ can lead to psychological, emotional and biological factors.

Psychological and emotional aspects can be awakened by the lack of recreational activities, which makes the patient more sensitive to his or her suffering and concern for other hospitalized patients⁽⁵⁾. In addition, poor recreation activities coupled with disengagement from the outside environment distract the patient from the social environment, increasing the sense of detachment from the family⁽²³⁾ and from society. This fact demonstrates that the stressors caused by the ICU environment lead to psychological, emotional and social consequences. Thus, nursing can enable actions of social interaction, such as access to radio or music, preventing the patient from being stressed by having to keep staring at the ceiling⁽²⁶⁾ and experiencing their illness in a negative way.

The reduced quantitative of scientific productions focused on the inpatient perspective showed that some aspects were not highlighted, such as cognitive, spiritual and functional. However, the results suggest that nursing care should be presented in an individual plan that considers the factors that are generating stress in the patient, regardless of the type, duration and intensity of these stressors.

CONSIDERATIONS

In view of the results, it is evident that the stressors identified in this study can be transcribed as nursing care in a plan of individual care to the patient, making possible the recovery and rehabilitation process. Thus, it is up to the nursing to diagnose, intervene and evaluate the patients, preventing and minimizing the stressors during hospitalization in the ICU.

Among the environmental factors, disturbed sleep pattern, noise, ineffective thermoregulation and unfavorable situations were identified. The physiological factors were impaired mobility in bed, impaired verbal communication and pain. The emotional/psychological factors were lack of attention/individuality, anxiety, fear and loss of autonomy. Moreover, the social factors identified were interrupted family process, impaired social interaction, impotence, feelings of impotence and compromised family coping.

It is recommended clinical research to be developed on the subject in the perspective of the patient and new reviews that include new databases and languages. One of the limitations of this study is the variety of instruments used by researchers to identify stressors.

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